Presented in these 13 teacher's guides for grades K-12 are lesson plans and ideas for integrating language arts and environmental education. Each lesson originates with a fundamental concept pertaining to the environment and states, in addition, its discipline area, subject area, and problem orientation. Following this, behavioral objectives and suggested learning experiences are outlines. Behavioral objectives include cognitive and affective objectives and skills to be learned, while learning experiences list student-centered in class activities and outside resource and community activities. Space is provided for teachers to note resource and reference materials—publications, audio-visual aids, and community resources. The guides are supplementary in nature and the lessons or episodes are designed to be placed in existing course content at appropriate times. This work was prepared under an ESEA Title III contract. (BL)
A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts Grade K

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin 54301
(414) 432-4338
INSTRUCTION - CURRICULUM - ENVIRONMENT

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PROGRAM FOR ENVIRONMENTAL EDUCATION

Language Arts Grade K

III E.S.E.A.
ESA's 3-8-9
54301

Robert Warpiniski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist
PREFACE

If you wish to excite students about their environment, help of over a hundred teachers, year long meetings, a summer workshop, ecologists, this guide means realistic developed aid for you, which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are devices--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know you to adapt, adopt, or use. Be design, the range of suggestions mentation and usage are even wider. Many episodes are self-c others can be changed in part or developed more keenly over - possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning plan. The reasons are simple. No guide has all the answers unless viewed in the context of your classroom situation. Try give it a triple reading, check over the resources listed, max prime your students, and seek help. The Project personnel and acknowledgement page stand ready to aid your efforts. Feel free.
4. The Project Resource Materials Center serves all CESA 3, 8, private. We will send available materials pre-paid. Call for visit. Phone 432-4338.
5. Check off the Project ICE Bibliography in your school library Center materials. Please offer suggestions, comments, or advice service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scratch suggestions on the episode pages or use the attached evaluation collected in late May next year and will be used in our revisions reactions and suggestions--negative and positive. Please note in the episodes may refer to specific, local community resources, individual school districts and teachers will have to substitute. A list of terms pertinent to the episodes is below.
7. Ecologists and other experts have simplified the issue--survival Creation's beauty and complexity--often noted as the work of and human energy to save. A year's work by a hundred of your gesture. Without you, their work will crumble, and so might let us live to think, feel, and act in harmony with our world.

I. Cognitive means a measurable mental skill, ability, or process
2. Affective refers to student attitudes, values, and feelings
3. APWI means Acceptable Performance Will Include (labels a co
4. EPA - Environmental Problem Area.
PREFACE

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page stand ready to aid your efforts. Feel free to ask their help in pre-planning.

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to think, feel, and act in harmony with our world.

Editorial Board

means a measurable mental skill, ability, or process based on factual data.
refers to student attitudes, values, and feelings.
Acceptable Performance Will Include (labels a cognitive or mental performance.)
Probabilistic Problem Area,
ACKNOWLEDGMENTS: The following teachers and consultants participated in the development of the Supplementary Environmental Education Guide:

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Dennis Bryan, UWGB

Marinette: David West, Lawrence U.
BEHAVIORAL OBJECTIVES

Cognitive: Through pantomime, the child will recognize the sun as the energy source.
Affective: Child accepts why life depends upon the correct amount of sunshine for strength & growth.

Skills to be Learned
Oral expression through dramatic play
Discussion about film, if used.

SUGGESTED LEARN:

I. Student-Centered in class activity
1. Two children representing plants in dramatic play & pantomime show the differences in growth & strength of the 2 plants in experiment. Third child represents the sunshine.
2. Discussion with riddles. (Ex.- What is big, yellow, & round & doesn't make a sound. It's far, far away, but we still see it during the day.
3. Read story about the sun.
4. Show picture that includes the sun. Have children describe what they see. Could make up a story about it.
5. Bulletin board display. Sun in center; children place picture objects around that depend on the sun. (Label them also, if desired.)
The sun, the basic source

converted through

is into a form all

use for life pro-

ceses.

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
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</table>

II. Outside Resource and Community Activities

Discipline Area: Language Arts
Subject: Language Arts
Problem Orientation: Energy Use
Grade: Kind.
Resource and Reference Materials

Publications:

Books:
The Sun, Our Nearest Star, by Franklyn M. Branley, Crowell Co., 1961

Audio-Visual:

Community:
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
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</tbody>
</table>
2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Children arrange each system in order.

**Affective:** Children will accept that all organisms cannot live alone.

**Skills to be Learned**
- Language development as evidenced in discussion of animal life of locale
- Math game (Fishing for number facts)

**SUGGESTED LEARNED**

I. Student-Centered in class activity

A. Find pictures & make ecological interdependence pictures.

- Bunny
- Fox
- Grass

B. Paste on large drawing:
- Food Chains
- Deer
- Grass
- Hunter

C. Seaweed
- Little Fish
- Big Fish

D. Their own family chain-int typical foods they eat.
- Man
- Cow (meat & Grass
Living organisms interact among

an intricate unit called an

Discipline Area: Language Arts
Subject: Language Arts
Problem Orientation: Ecosystem
Grade: K

Objectives:
Children arrange

Children will

Learned

Development as
in discussion
Life of locale
(Fishing for

Experiences:
I. Student-Centered in class activity
A. Find pictures & make ecological interdependence pictures.

Bunny

Fox

Grass

B. Paste on large drawing:
Food Chains
Deer

Deer

Hunter

Grass

C. Little Fish
Seaweed

Big Fish

D. Their own family chain-into typical foods they eat.
Man

Big Fish

Man

Cow (meat & milk)
<table>
<thead>
<tr>
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<tbody>
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<tr>
<td>Audio-Visual:</td>
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<tr>
<td>Science Material</td>
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<tr>
<td>Original drawings of students</td>
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<tr>
<td>Games</td>
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<td>Smokey songs</td>
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<td>Community:</td>
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<td>Conservation person</td>
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... (Text continues)
Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNED</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive: Children will show through oral discussion ability to make simple &amp; logical judgments.</td>
<td>1. Student-Centered in class activity</td>
</tr>
<tr>
<td>Affective: Children will know that size of area limits fun &amp; activities.</td>
<td>1. Blocks in a container. One child can demonstrate that placing blocks in a box is limited. Keep putting in blocks until container will hold no more. Discussion &amp; making oral judgments as to it only holding a certain number.</td>
</tr>
<tr>
<td>Skills to be Learned</td>
<td>2. Mark off a small area &amp; crowd with children till filled. Then, taking the number of children in the small area, take them outdoors and let on playground area while others observe.</td>
</tr>
<tr>
<td>Oral skills</td>
<td>3. Return to room. Follow up with questions: How did you feel? What could you do &amp; not do in each space?</td>
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Physical factors are limiting the size of organisms living in an environment, thus, each organism has a carrying capacity.

<table>
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<th>OBJECTIVES</th>
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| Children will make simple observations. | I. Student-Centered in class activity  
1. Blocks in a container.  
One child can demonstrate that placing blocks in a box is limited. Keep putting in blocks until container will hold no more. Discussion & making oral judgments as to it only holding a certain number.  
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What could you do & not do in each space? |
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<td></td>
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<tr>
<td>Rabbit Hill by Robert Lawson</td>
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Audio-Visual:

Film:
* Rabbit Hill, color, 2 reels 53 minutes, Brown County Library. 

Community:
<table>
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- Presson

- Wells

- Daniels
C 4. An adequate supply of water is essential for life.

BEHAVIORAL OBJECTIVES

**Cognitive:** The learner will tell a story about going without water. The learner will list ways he uses water at school.

**Affective:** The class will offer ways in which they use water. The list will be written on board.

**Skills to be Learned**
- Listing what could not be done if there was no water
- Giving a talk about the need of water
- Story-telling

**SUGGESTED ACTIVITY**

I. Student-Centered in

1. Show pictures of the places in the world where water is found (ocean, pond, river)
2. Show pictures of where there isn't water (deserts, tundras)
3. Make bulletin board above pictures.
4. To see if water is essential, the children will not use any water for a given amount of time.

5. Children will list things they were not able to do because of not having water.

6. Children will tell about
   a. how they felt when they couldn't use water
   b. why they need water

7. The children could figure out a lunch meal which would not need water.
Adequate Problem Orientation Water Supply Grade K-1

SUGGESTED LEARNING EXPERIENCES

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
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<tbody>
<tr>
<td>1. Show pictures of the many places in the world where water is found (ocean, lake, pond, river)</td>
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<td>2. Show pictures of where there isn't water (deserts, tundras)</td>
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<td>3. Make bulletin board of above pictures.</td>
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<td>4. To see if water is essential, the children will not use any water for a given amount of time.</td>
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<td>5. Children will list all things they were not able to do because of not being able to use water.</td>
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<td>6. Children will tell story about a. how they felt when they couldn't use water</td>
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<tr>
<td>b. why he needs water</td>
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<tr>
<td>7. The children could try to figure out a lunch menu or meal which would not use water.</td>
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</tr>
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</table>
Audio-Visual: Pictures of where water is found & where water is not found.
| Sources | Continued and Additional Suggested Learning Experiences |
An adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food.

### Behavioral Objectives

**Cognitive:** There is other places where there is a lack of air, such as plastic bags, trunks, sand banks. Children will identify these places.

**Affective:** The child will respond to the teacher's question: If you saw a refrigerator outside what would you do?

### Skills to be Learned
- Descriptive words
- Good speaking skills
- Building a plot
- Good listening & assimilation skills

### Suggested Learning Activities

#### I. Student-Centered in class activity

**A. Class activity**

1. Teacher draws (cross-section) of child in an air-tight appliance. Air inside designated by circulating arrows to child. Supply is exhausted in limited place, one cannot survive; so all air supply has its limits in various amounts in various areas must be conserved or wisely used.

Problem focused: Lack of oxygen causes sickness & adverse effects.
A. Class activity
1. Teacher draws (cross-section) of child in close air-tight appliance. Air inside designated by circulating arrows-to child. As supply is exhausted in a limited place, one cannot survive; so all air supply has its limits in various amounts in various areas & must be conserved or wisely used.

Problem focused: Lack of oxygen causes sickness or adverse effects.
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C 6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

**BEHAVIORAL OBJECTIVES**

| Cognitive: | Children will identify plants & animals of an arid & tropic area & classify through oral discussion & observation. |
| Affective: | Each child will select whether he would like to live in the jungle or where he now lives & tell why. |

**Skills to be Learned**
- Observation
- Oral discussion
- Making judgments
- Vocabulary
- Classification

**SUGGESTED LEARNING ACTIVITY**
1. Student-Centered in class activity
   - 1. Show to class color photos of desert plant & animal life in environment.
   - 2. Color photos of jungle or tropical environment.
   - 3. Through observation & discussion, children point out & compare two environments.
   - 4. Develop terms: desert, jungle.
   - 5. Point out heat, lack of water & moisture.
     - a. If desired, as part of another lesson, teacher may also point out seasons.
   - 6. Flannelgraph presentation
     - a. 6 people vs. 4 plates
     - b. dogs vs. no. of bones
are not equally  
earth or over  

Subject  
Animal Life

Problem Orientation Resource Usage Grade  _K_

<table>
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<tr>
<td><em>Audio-Visual:</em></td>
</tr>
<tr>
<td><em>Living Desert,</em> color photos</td>
</tr>
<tr>
<td>Walt Disney Productions</td>
</tr>
<tr>
<td>Kim, Jungle Boy, color paintings</td>
</tr>
<tr>
<td><strong>Community:</strong></td>
</tr>
<tr>
<td>classroom or school garden</td>
</tr>
<tr>
<td>Materials</td>
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15.
7. Factors such as facilitating transportation, economic conditions, population growth, Discipline and increased leisure time have a great effect on changes in land use and centers of population density.

BEHAVIORAL OBJECTIVES

Cognitive: Children will show through discussion, murals or pictures, that they know changes in living are made through economic conditions & increased leisure time.

Affective: The children will make a verbal choice between 2 choices.

Example: Would you have more clothes if you lived long ago or now? Did your mother have to know how to do more things with material long ago or now?

Skills to be Learned
Listening skills
Visual & oral skills

1. Suggested activities

I. Student-Centered in class activity

A. Class: Varied & Involving Students

1. The first part is listening to two real stories. One relates how one person with a needle service for a small community for services she required from others. As opposed to: Pioneer life where each family had to do each service himself to maintain the family unit's needs.

2. Discussion questions following record on economic changes.

a. In pioneer family, many people had to order for the boy & girl to get clothes? Example: Dad & brothers raised the sheep & sheared them, raised food to feed sheep. Grandmother & mother washed & combed the wool. Grandmother to make threads.

(}
as facilitating transportation,

Discipline Area: Language Arts

Leisure time have a great Subject Language Arts

Changes in land use and Problem Orientation Leisure Time Grade K

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Class: Varied & Involving Students

1. The first part is listening to two records.

Story relates how one person with a needle did a service for a small community for services she required from others.

As opposed to: Pioneer life where each family had to do each service himself to maintain the family unit's needs.

2. Discussion questions following record on economic changes.

a. In pioneer family, how many people had to work in order for the little girl & boy to get new clothes?

Example: Dad & brother raised the sheep & sheared them, raised food to feed sheep.

Grandmother & mother washed & combed the wool. Grandmother had to make threads. (cont.)
Resource and Reference Materials

Publications:
- Hardbound text going with SRA kit which should be used with opaque projector in conjunction with the record.

Audio-Visual:
- SRA Grade 1 Social Studies Kits
  - Part I Records #12 & #13 (Dealing with economics in a family in the past as compared to today's living)
  - Part II Records #15 & #16 (Dealing with leisure time being used for pleasure away from home or different activities at home, according to individual choice)

Community:
- Library for photo plates showing changes in environment due to machinery, various resources, etc.

Continued and Additional Suggested Data

I. (cont.)
- Mother wove, dyed & sewed mat dress & trousers.
- b. When you who live in this year do you get it?
- c. Who finds it easier to get a one dress?
- d. In the little town of the sea Tom get his trousers fixed?
- e. Why was Mrs. Brown's needle? f. As more people live in a small can they get new clothes like by raising sheep & making the g. Would you like this? Why? Like people live closer together.

3. Make mural, depicting scenes by e.g. Pioneer vs today

4. Make up a skit depicting 2 way
Continued and Additional Suggested Learning Experiences

1. (cont.)
   - Mother wove, dyed & sewed material to make a dress & trousers.
   - When you who live in this year want a dress, how do you get it?
   - Who finds it easier to get dresses or more than one dress?
   - In the little town of the second story, how did Tom get his trousers fixed?
   - Why was Mrs. Brown's needle so important to her?
   - As more people live in a small area like a town, can they get new clothes like the pioneer family by raising sheep & making their own material?
   - Would you like this? Why? Life changes as more people live closer together.

2. Make mural, depicting scenes based on records. 
   e.g. Pioneer vs today

3. Make up a skit depicting 2 ways of life.
Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

**BEHAVIORAL OBJECTIVES**

<table>
<thead>
<tr>
<th>Cognitive: The student will help to form a list of objectives for a trip.</th>
<th>SUGGESTED LEARNING EXERCISES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective: Children will voluntarily participate in a discussion on a teacher-made question. Example: Why don't we leave the animals in the woods where they are happy instead of penning them up in parks or zoos? After they have had a poll of hands to show who wants to pen the animals, have discussion on the reasons they chose.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>Skills to be Learned</td>
<td>II. Activity</td>
</tr>
<tr>
<td>Write letters</td>
<td>A. Classroom activities</td>
</tr>
<tr>
<td>List necessary things to be accomplished</td>
<td>1. Have children make believe he is one of the animals he knows and tell:</td>
</tr>
<tr>
<td>Writing stories</td>
<td>a. Where he lives</td>
</tr>
<tr>
<td></td>
<td>b. Where he wishes he could live</td>
</tr>
<tr>
<td></td>
<td>c. Why he is there</td>
</tr>
<tr>
<td></td>
<td>d. How he helps man or other animals</td>
</tr>
<tr>
<td></td>
<td>2. Make a bulletin board using the idea of the above activity.</td>
</tr>
<tr>
<td></td>
<td>3. Make believe some of the children are various animals in pens &amp; others are human visitors, what would the animals talk about?</td>
</tr>
</tbody>
</table>
as facilitating transportation,

Discipline Area: Language Arts

Problem Orientation: Population

Grade: K-1

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td>a list</td>
<td>A. Outside activities</td>
</tr>
<tr>
<td>a trip.</td>
<td>1. Do necessary preparing for a bus field trip.</td>
</tr>
<tr>
<td>even will</td>
<td>a. Letters</td>
</tr>
<tr>
<td>participate</td>
<td>b. Phone calls</td>
</tr>
<tr>
<td>a condition.</td>
<td>c. Money needed</td>
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<tr>
<td>so we</td>
<td>d. List of what is to be observed or accomplished on the trip</td>
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<tr>
<td>do in the</td>
<td>e. Discussion of how one should behave</td>
</tr>
<tr>
<td>recreation</td>
<td></td>
</tr>
<tr>
<td>area, the</td>
<td>2. After the trip to a recreational area, the teacher will lead a discussion using all or some of these questions:</td>
</tr>
<tr>
<td>teacher</td>
<td>a. Why did we go to the trout ranch?</td>
</tr>
<tr>
<td>will</td>
<td>b. Why do other people go?</td>
</tr>
<tr>
<td>lead</td>
<td>c. When is the trout ranch open to the public? Why?</td>
</tr>
<tr>
<td>a discussion</td>
<td>d. Why do people from far away come here?</td>
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<tr>
<td>using all or</td>
<td>e. Where do these people come from?</td>
</tr>
<tr>
<td>some of these</td>
<td>f. Why do we like these people to come here?</td>
</tr>
<tr>
<td>questions:</td>
<td>g. Did these people always come from?</td>
</tr>
<tr>
<td>a. Why did we go to the trout ranch?</td>
<td>(cont.)</td>
</tr>
</tbody>
</table>

I. Student-Centered in class activity

A. Classroom activities

1. Have children make believe he is one of the animals he knows and tell:
   a. Where he lives
   b. Where he wishes he could live
   c. Why he is there
   d. How he helps man or other animals

2. Make a bulletin board using the idea of the above activity.

3. Make believe some of the children are various animals in pens & others are human visitors, what would the animals talk about?
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td>(cont.)</td>
</tr>
<tr>
<td>Audio-Visual:</td>
<td>II.  Green Bay, Milwaukee, etc.? Why are</td>
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<tr>
<td>Pictures of what is done in</td>
<td>now?</td>
</tr>
<tr>
<td>recreational areas</td>
<td>h. Do these people bring something we</td>
</tr>
<tr>
<td>Community:</td>
<td>i. Do these people bring something we</td>
</tr>
<tr>
<td>Resource unit such as:</td>
<td>(Pollution)</td>
</tr>
<tr>
<td>Park</td>
<td>j. What else happens because these pe</td>
</tr>
<tr>
<td>Zoo</td>
<td>(Roads, materials for building, foo</td>
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<tr>
<td>Trout ranch</td>
<td>3. Write a story about their trip.</td>
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<td>Swimming area</td>
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<td>Water skiing area</td>
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<tr>
<td>Snowmobiling area</td>
<td></td>
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<tr>
<td>Fishing ponds</td>
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<tr>
<td>Boating area</td>
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</tbody>
</table>
II. (cont.)

Green Bay, Milwaukee, etc.? Why are they coming now?

h. Do these people bring something we need? (Money)
i. Do these people bring something we don’t need? (Pollution)
j. What else happens because these people come north? (Roads, materials for building, food)

3. Write a story about their trip.
Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUBJECT</th>
<th>PROBLEM ORIENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive: Through recorded description, demonstrate their awareness of nature and by listening to other descriptions, demonstrate their ability to respect another person's ideas.</td>
<td>Subject</td>
<td>Discipline Area</td>
</tr>
<tr>
<td>Affective: Notice and appreciate and describe items in their environment through the sense of touch. Share with others.</td>
<td></td>
<td>Problem Orientation</td>
</tr>
</tbody>
</table>

Skills to be Learned
- Observation
- Oral expression
- Tactile awareness
- Listening

SUGGESTED LEARNING ACTIVITY
1. Read poem, "Abigail's Fingers" to class.
**OBJECTIVES**

I. Through recognition, description, and listening to descriptions of the sense environment, demonstrate awareness of personal, social, and cultural values and attitudes.

**TEAMING EXPERIENCES**

II. Outside Resource

1. Have class go outside schoolyard or nearby park.
2. Have tape recorder along. (More than one, if possible.) Children can describe how these things feel.
3. Later in the classroom, the children can listen to the tape. Maybe they could think of that music they listen to that would sound like their descriptions.

**SUGGESTED LEARNING EXPERIENCES**

II. Community Activities

1. Read poem, "Abigail's Fingers" to class.
2. Notice and describe their environment.
3. Have class go outside schoolyard or nearby park.
4. Have tape recorder along. (More than one, if possible.) Children can describe how these things feel.
5. Later in the classroom, the children can listen to the tape. Maybe they could think of that music they listen to that would sound like their descriptions.
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</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td><strong>Fingers Are Always Bringing Me News</strong></td>
</tr>
<tr>
<td>by Mary O'Neill.</td>
<td>by Mary O'Neill.</td>
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</table>

### Audio-Visual:

### Community:
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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<tbody>
<tr>
<td>Bing Me News</td>
<td></td>
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</tbody>
</table>
10. Short-term economic gains may produce long-term environmental losses.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The children will identify the necessities for life on a space ship by drawing or cutting pictures of the needed supplies for a trip in space.

**Affective:** Children will support the idea that the space ship is a limited ecosystem which can be compared to earth in the amount of time it can sustain life.

**Skills to be Learned**
- Mental Imagery
- Critical Judgement
- Possible Alterations
- Oral Skills
- Motor Skills
- Analogy - Earth is like a space ship

**SUGGESTED LEARNING ACTIVITY**

I. Student-Centered in class activity

**A. Classroom**

1. Teacher diagrams on board along with class questions & discussion.
   a. Let's look at a space ship.
   b. What would be in it? (Astronauts)
   c. They are going out in space. What will they need to stay alive? (Air, food, water, & go.
   d. Can a car go without energy & fuel)?
   e. Can they stay out in space for a year? Why not? (Small space - limited, air, food, water & go. must be carried within ship).
   f. How long do you think will last? (Food, air for 2 weeks. Go-power week).
   g. What will happen? (All will die)

2. The children will draw out pictures of food, air which are needed for the trip.
## Objectives
- Children will draw or cut out pictures of food, air, and water which are needed for the space trip.

## Suggested Learning Experiences

### I. Student-Centered in Class activity

#### A. Classroom

1. Teacher diagrams on board along with class questions & discussion.
   - Let's look at a spaceship.
   - What would be in it? (Astronauts)
   - They are going out in space. What will they need to stay alive? (Air, food, water, go-power, energy & fuel)
   - Can a car go without gas?
   - Can they stay out in space for a year? Why not? (Small space - limited - All air, food, water & go-power must be carried within the ship)
   - How long do you think it will last? (Food, air, water for 2 weeks. Go-power for 1 week)
   - What will happen? (Astronauts will die)

2. The children will draw or cut out pictures of food, air, and water which are needed for the space trip.

### II. Outside Resource and Community Activities
Resource and Reference Materials
Continued and Additional Suggested Publications:

Audio-Visual:

Community:
| Materials | Continued and Additional Suggested Learning Experiences |
C 10. Short-term economic gains may produce long-term environmental losses.

**BEHAVIORAL OBJECTIVES**

| Cognitive: Children will experience direct results of poor & wise use & poor & good planning in a classroom situation. |
| Affective: Children will offer their responses to "Save Today for Tomorrow". |

**Skills to be Learned**
- Oral skills
- Time limit planning
- Critical judgements
- Listening

**SUGGESTED LEARNING**

I. Student-Centered in class activity

A. Classroom

1. How many have ever been to a pot-luck supper or dinner? What is it for? (We take one thing & share many, in process of this activity.) Example - Mother says we will go to the pot-luck & she will take a fruit cocktail cake with nuts & chocolate chips. If the cake was baked Sat. evening & you ate it for a breakfast snack on Sunday morning, there would be no cake & no time to bake another, so you cannot go to the pot-luck.

2. How many days a week do we come to school? (5 days make up one school week)

3. I am going to give you enough crackers today (Monday) to last you a school week. You are to keep them in your box & each day, you will take the amount of crackers we ordinarily get with our milk break. Remember we are going to get 10 crackers just enough for 2 at each (con
Term economic gains may

term environmental

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Language Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Language Arts</td>
</tr>
<tr>
<td>Problem Orientation</td>
<td>Food</td>
</tr>
<tr>
<td>Grade</td>
<td>K</td>
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</table>

**SUGGESTED LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
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<tbody>
<tr>
<td>A. Classroom</td>
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<tr>
<td>2. How many days a week do we come to school? (5 days make up one school week)</td>
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<td></td>
</tr>
</tbody>
</table>
Continued and Additional Suggested Readings:
1. (cont.)
   - Have any leftovers of tomorrow's milk? Have control group differ by 2 each day. Let other plan on own & tally on board or chart.
   - If we eat them all, will you have enough for a week? Have control group differ by 2 each day. Let other plan on own & tally on board or chart.
1. (cont.)

day's milk break. If we eat them all today, will we have any left for tomorrow? If you eat more than one day's usual amount, will you have enough to last all week? Have control group for demonstration that eat 2 each day. Let other plan on own & teacher keeps tally on board or chart.
10. Short-term economic gains may produce long-term environmental losses.

**BEHAVIORAL OBJECTIVES**

| Cognitive: Through answering questions about problems of over-usage in school, classroom & community, children will tell alternatives of good use & demonstrate environmental resources are limited & can run out without careful, planned use & distribution. |
| Affective: The students will create a puppet show pointing out situations of wise & unwise use. |

**Skills to be Learned**
- Creative writing
- Critical thinking
- Oral skills
- Choosing good alternatives
- Dramatization
- Illustrating
- Motor skills in making puppets

**I. Student-Centered in class activity**

**A. Classroom**

1. Class story, skits or puppet shows as results of teacher-given example.

For motivation, use one of the 3 examples below:

a. Our janitor fills up the soap dispenser once a day before school with enough soap for the rest of the day. (If we use one pump when we wash our hands at each lavatory break & before lunch). Now some people here have kept pushing the dispensers & the soap has gone down the drain & not even used to clean hands. Someone used soap to wash mud off their shoes. Now if just half our class did this at morning recess, our soap would be all used up, & at dinner we would not be able to get hands clean & germs washed off well without soap. One half of (cont.)
nomic gains may
environmental

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<tr>
<td>Problem Orientation of Resources</td>
<td>Conservation</td>
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<tr>
<td>Grade</td>
<td>Grade K</td>
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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Classroom

1. Class story, skits or puppet shows as results of teacher-given example. For motivation, use one of the 3 examples below:

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Resource and Reference Materials

Publications:

Continued and Additional Suggested Learner Activities:

I. (cont.)

our class would not even get their clean once during the day if this.

1. Divide the class into groups & use too much of something & that
without anything for later use.

2. Example - Using all red paper for decorations & nothing left for W

3. Teacher should point out that a are limited & can develop to out

b. If we had only 6 trees on our lan
d. house & we cut them all down for f there wouldn't be any shade from b.

1. Discussion: What might this per there would be trees left & all
Example - Each time one is used, 

2. Activity - Class could create a with individual pictures, the story
poor management of trees.

3. If we pick all the flowers in a w they would look beautiful in our ho two & then we have to throw them at some flowers growing in the woods, & grow again next year. Many people see & enjoy them. The government try to keep people from picking too many killing them off altogether.

1. Discussion of best alternatives understanding.

2. Have students tell what they would some wild flowers would be left t Some answers - do not pick at all

2. Have children plan dialogue & const on a puppet show pointing out situa unwise uses.
Continued and Additional Suggested Learning Experiences

1. (cont.)
   our class would not even get their hands really clean once during the day if this kept up.
   1. Divide the class into groups & find other ways we use too much of something & that may leave us without anything for later use.
   2. Example - Using all red paper for Christmas decorations & nothing left for Valentine's Day.
   3. Teacher should point out that all mentioned uses are limited & can develop to outdoor environment.

b. If we had only 6 trees on our land or around our house & we cut them all down for fire wood in winter, there wouldn't be any shade from heat in summer.
   1. Discussion: What might this person do to be sure there would be trees left & all year around?
      Example - Each time one is used, two could be planted, etc.
   2. Activity - Class could create a story & illustrate with individual pictures, the story pointing out poor management of trees.

c. If we pick all the flowers in a woods in spring, they would look beautiful in our home for a day or two & then we have to throw them away but if we let some flowers growing in the woods, they would re-seed & grow again next year. Many people would be able to see & enjoy them. The government tried to find ways to keep people from picking too many wild flowers & killing them off altogether.
   1. Discussion of best alternatives on grade level understanding.
   2. Have students tell what they would do to make sure some wild flowers would be left to grow next year. Some answers - do not pick at all, put up fence, etc.

2. Have children plan dialogue & construct puppets to put on a puppet show pointing out situations of wise & unwise uses.
### 10. Short-term economic gains may **produce long-term environmental losses.**

**Discipline Area: Language**  
**Subject: Language**  
**Problem Orientation: Concept**

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING ENVIRONMENT</th>
</tr>
</thead>
</table>
| **Cognitive:** Through dramatization by puppets, the children will show the long-term result of careless planning.  
**Affective:** Children will voluntarily judge that short-term gains are not really gains at all in the long run. | **I. Student-Centered in class activity**  
A. Classroom  
1. Read, *Why the Bear Lost his Beautiful Tail* to the children.  
2. In a discussion, point out the fact that the bear wanted to get something quickly & did it in a foolish way suffering a loss which could not be replaced.  
3. Have the children tell what the bear could have done which would have been more sensible. (It should have been planned.)  
4. The children can make puppets and act out the folktale. |

**Skills to be Learned**  
- Dramatization  
- Discussion  
- Audio skills
OBJECTIVES
1. Through dramatic activity:
   A. Classroom
   1. Read, Why the Bear Lost His Beautiful Tail to the Children.
   2. In a discussion, point out the fact that the bear wanted to get something quickly & did it in a foolish way suffering a loss which could not be replaced. (It should have been planned)
   3. Have the children tell what the bear could have done which would have been more sensible. (It should have been planned)
   4. The children can make puppets and act out the folktale.

II. Outside Resource and Community Activities

Subject
Language Arts
Problem Orientation
Conservation
Grade K-1

Discipline Area
Arts

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in Class Activity

- Children will use the long run.
- Economic gains may.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Story:</strong></td>
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<tr>
<td>Why the Bear Lost his Beautiful</td>
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<td>Tail</td>
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<td><strong>Audio-Visual:</strong></td>
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<td><strong>Community:</strong></td>
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<tr>
<td>Source Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
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### BEHAVIORAL OBJECTIVES

<table>
<thead>
<tr>
<th>Subject</th>
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<td>Individual acts, duplicated</td>
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<td>E environmental alterations over time</td>
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### SUGGESTED LEARNING

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<th>Subject</th>
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</table>

#### BEHAVIORAL OBJECTIVES

- **Cognitive**: Dramatize either the story of Charlotte's Web or Smokey, the Bear.
- **Affective**: If I left the soap in the sink & the dripping water dissolved all the soap, how could we get our hands clean?

#### Skills to be Learned

- Discussion & analysis of story
- Organization of story
- Planning ideas
- Motor skills

#### SUGGESTED LEARNING

**I. Student-Centered in class activity**

**A. Classroom**

1. Read the book, Charlotte's Web to the children and then have an oral discussion:
   a. Limited situation
   b. Relate Wilbur's dependence on Charlotte
   c. Charlotte's decision
   d. Charlotte's sacrifice for her friends. (Wilbur's life depends on Charlotte's ingenuity.)
   e. Charlotte's other alternatives & effects of choice

2. Class story: story cards.

3. Work on shadow boxes depicting any of the parts of the above mentioned. (Parts of plot)
   a. Done in stand up figures inside a cut out cereal box
   b. Cover the outside of box.
   c. Display with a bulletin board with explanation of scenes.

4. This can also be dramatized (in skits, child planned) to show the plot & interaction.
OBJECTIVES
Objectives either Charlotte's Web left the dissolved how could clean?

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Classroom
1. Read the book, Charlotte's Web to the children and then have an oral discussion:
   a. Limited situation
   b. Relate Wilbur's dependence on Charlotte
   c. Charlotte's decision
   d. Charlotte's sacrifice for her friends. (Wilbur's life depends on Charlotte's ingenuity.)
   e. Charlotte's other alternatives & effects of choice
2. Class story: story cards.
3. Work on shadow boxes depicting any of the parts of the above mentioned. (Parts of plot)
   a. Done in stand up figures inside a cut out cereal box.
   b. Cover the outside of box.
   c. Display with a bulletin board with explanation of scenes.
4. This can also be dramatized (in skits, child planned) to show the plot & interaction (cont.)
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<tr>
<th>Resource and Reference Materials</th>
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<tr>
<td>Charlotte's Web</td>
<td>5. Read the story, Smokey, the Bear</td>
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<tr>
<td>Smokey, the Bear</td>
<td>a. Have oral discussion. Facts about Smokey, the Bear.</td>
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<tr>
<td></td>
<td>b. Make poster &amp; pictures with film</td>
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<td></td>
<td>c. Watch film, Smokey, the Bear</td>
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<td></td>
<td>d. Learn the song, Smokey, the Bear</td>
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<tr>
<td></td>
<td><strong>Problem Focused:</strong></td>
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<tr>
<td></td>
<td>Charlotte's Web – Individuals’ attitudes influence surrounding environment</td>
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<td>Smokey, the Bear – Effects of care</td>
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<tr>
<th>Audio-Visual:</th>
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<tbody>
<tr>
<td>Smokey, the Bear Film</td>
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</table>

| Community:                       |                                                       |
I. (cont.) & reaction of characters in story.

5. Read the story, Smokey, the Bear. Play the record, too.
   a. Have oral discussion. Facts about the background of Smokey, the Bear.
   b. Make poster & pictures with fire prevention captions.
   c. Watch film, Smokey, the Bear. 4 1/2 mi; B&W.
   d. Learn the song, Smokey, the Bear.

Problem Focused:
Charlotte's Web - Individual's attitude affects & influences his surroundings & environment.
Smokey, the Bear - Effects of carelessness with fire.
C 12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

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<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING</th>
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<tbody>
<tr>
<td>Cognitive: Child will demonstrate by group &amp; individual actions that their classmates rights must be respected. They solved problems through group consideration &amp; action.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>Affective: A child will show by his social activities in a classroom that private ownership must be regarded as a stewardship &amp; must not encroach upon or violate the individual right of others.</td>
<td>A. Classroom</td>
</tr>
</tbody>
</table>

Skills to be Learned
- Planning
- Oral skills
- Dramatization
- Motor skills
- Following directions
- Demonstration
- Sharing knowledge with others

I. Play acting & dramatization involving certain given situations. Skits showing:
   a. Two or three children in a group to take a toy & act out what may when one owns a toy & must share it.
   b. When there is two toys for three children.
   c. Two children have two pin wheels amongst a group of five. (In dramatizing, two will not share or two will share with two others and one cannot get one) A sixth child comes with knowledge how to make one & shows all how to construct them so now each can have one.

2. The teacher & class can have a discussion about the skits and the ideas they show.

3. The children can construct their own pin wheels.
Ownership must be a stewardship and not infringe upon or violate the personal right of others.

Discipline Area: Language Arts
Subject: Dramatization
Problem Orientation: Stewardship
Grade: K

**SUGGESTED LEARNING EXPERIENCES**

**I. Student-Centered in class activity**

A. Classroom

1. Play acting & dramatization involving certain given situations. Skits
   showing:
   a. Two or three children in a group to take a toy & act out what may happen
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   b. When there is two toys for three children.
   c. Two children have two pin wheels amongst a group of five. (In dramatizing, two will
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      A sixth child comes with knowledge how to make one & shows all how to construct them so now each can have one.

2. The teacher & class can have a discussion about the skits and the ideas they show.
3. The children can construct their own pin wheels.

**II. Outside Resource and Community Activities**
### Resource and Reference Materials

#### Publications:

#### Audio-Visual:
Each child should have:
- 5 inch square of paper
- pin
- bead or cut off straw to use
- pencil with eraser

#### Community:
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Draw to use: a saw to use

**Note:**

- Use a proper safety gear.
- Ensure the area is clear of obstructions.
- Practice cutting techniques to minimize accidents.

**Additional Learning:**

- Research different types of saws and their uses.
- Participate in practical workshops on sawing techniques.

**Safety Measures:**

- Always wear protective eyewear.
- Keep fingers away from moving blades.
- Never exceed the recommended cutting speed of the saw.
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

In commenting on each episode used in your class, you may use this format. Please feel free to adapt it and add more pages. Let your comments be both negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

on each episode used in your class, you may wish to duplicate this suggested feel free to adapt it and add more pages. Let us know all your critiques and ive and positive.

Objectives

Source & Reference Materials

& Community Activities

Learning Experiences

Suggestions & comments)
SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA  Language Arts  Grade  1

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin  54301
(414) 432-4338
ENTERTY PROGRAM FOR ENVIRONMENTAL EDUCATION

E AREA _Language Arts_____ Grade 1

under Title III E.S.E.A.
-C-E
schools in CESA's 3-8-9
Street
, Wisconsin  54301
-4338

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist
PREFACE

If you wish to excite students about their environment, help of over a hundred teachers, year long meetings, a summer workshop, ecologists, this guide means realistic, developed aid for you, which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are cases--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know you to adapt, adopt, or use. Be design, the range of suggestions mentation and usage are even wider. Many episodes are self-contained others can be changed in part or developed more keenly over possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning plan. The reasons are simple. No guide has all the answers unless viewed in the context of your classroom situation. To give it a triple reading, check over the resources listed, prime your students, and seek help. The Project personnel and knowledgement page stand ready to aid your efforts. Feel free to visit. Phone 432-4338.
4. The Project Resource Materials Center serves all CESA 3, 8 private. We will send available materials pre-paid. Call if you visit.
5. Check often the Project ICF Center materials. Please office suggestions, comments, or ad service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with scratch suggestions on the episode pages or use the attached evalua collected in late May next year and will be used in our revision reactions and suggestions--negative and positive. Please note in the episodes may refer to specific, local community resources cases, individual school districts and teachers will have tostitutes. A list of terms pertinent to the episodes is below.
7. Ecologists and other experts have simplified the issue--sur Creation's beauty and complexity--often noted as the work of and human energy to save. A year's work by a hundred of you gesture. Without you, their work will crumble, and so might let us live to think, feel, and act in harmony with our worl.

1. Cognitive means a measurable mental skill, ability, or pro
2. Affective refers to student attitudes, values, and feelin
3. APWI means Acceptable Performance Will Include (labels a
4. EPA - Environmental Problem Area.
PREFACE

excite students about their environment, help is ready. Thanks to the efforts of teachers, year long meetings, a summer workshop, university consultants and guide means realistic, developed aid for you. Please note the following ideas and teachers in writing and editing this guide.

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The Project ICE Bibliography in your school library for available Resource is. Please offer suggestions, comments, or advice at any time so that this low. Let's help each other.

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Editorial Board

fans a measurable mental skill, ability, or process based on factual data. refers to student attitudes, values, and feelings. Acceptable Performance Will Include (labels a cognitive or mental performance.) nonmental Problem Area.
ACKNOWLEDGMENTS: The following teachers and consultants participated in the development of the Supplementary Environmental Education Guide.

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Lillian Goddard, Coleman
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Michael Kersten, Suring
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Paul Kane, Ashwaubenon
Roy Lukes, Gibraltar
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Benjamin Roloff, Howard-Suamico
Greg Schmitt, Cathedral
John DeWan, Green Bay
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John Hussey, Green Bay
Sister Barbara, St. Bernard

Ednajean Purcell, OSU
Shaynette David West, Lawrence U.

Robert Cook, UWGB
Dennis Bryan, UWGB
Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

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<th>BEHAVIORAL OBJECTIVES</th>
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<tr>
<td>Cognitive: The child will show the effects of the wind and the sun by participating in a dramatization of the fable, acting the parts of the wind and sun. The child will recall two ways the sun helps or harms us.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>Affective: The children will ask questions about the sun as stimulated by the teacher.</td>
<td>1. What are fables?</td>
</tr>
<tr>
<td>Skills to be Learned</td>
<td>2. Reading the fable, &quot;The Sun &amp; the Wind.&quot;</td>
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<tr>
<td>Listening</td>
<td>3. Discuss difference between hot sunny days and cold windy days.</td>
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<tr>
<td>Promote sensory image of how sun and wind feel and sound.</td>
<td>4. Dramatize the fable.</td>
</tr>
<tr>
<td>Vocabulary</td>
<td>5. Set up questions as: Who was the strongest? What can the sun and wind do for plants?</td>
</tr>
<tr>
<td></td>
<td>6. Summarizing the concept that sometimes the sun and wind help us and sometimes they harm us: each child do an experiment a blow balloon till it bursts, melt butter in the sun, dish of water in sun to show evaporation.</td>
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Suggested Learning Experiences

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### Resource and Reference Materials

**Publications:**
- Fable - "Sun and the Wind"
- "Who Has Seen the Wind," by Rosetti

**Audio-Visual:**
- Calendar
- Thermometer
- Epe-paper streamer
- Electric fan
- Pictures
- Catalogs, to cut pictures from that show how we dress for different weather.
- Film(strip) on seasons

### Community:
Continued and Additional Suggested Learning Experiences
All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The students will learn to recognize some animals by name through pictures. The student will learn to recognize some birds by name through pictures. The student will write an informational article on the needs of his choice of animal & bird.

**Affective:** As the student participates in learning & doing, he will seek other examples of animals and how they live in their environment.

**Skills to be Learned**
- Listening for information
- Writing an informational article
- Looking for a bird & naming it

**SUGGESTED LEARNING I. Student-Centered in class activity**

**A. Class:**

1. Read: *The Kitchen-Window Squirrel* by Harold Longman. Let above introduce:
   - a. Animals of neighborhood
   - b. Birds of neighborhood
2. List wild animals (mammals of neighborhood & find pictures of adults & babies. Make bulletin board, learn to recognize names.
3. Have animal information read by teacher. Children write an informational article for one or more animals. A booklet could be made of stories.
4. Have a class period in which each child has a chance to tell when he saw one of these animals.
5. Discuss how many of these animals live here—why not more or less.
6. Put up bird pictures, have children learn to recognize them by picture. Have personal charts made & have child check if he sees bird each day of week. (cont.)
isms interact among

... and environment,

... the unit called an

... Subject

... Discipline Area

... Language Arts

Problem Orientation: Ecosystem

Grade: 1

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Class:

1. Read: The Kitchen-Window Squirrel by Harold Longman. Let above introduce:
   a. Animals of neighborhood
   b. Birds of neighborhood

2. List wild animals (mammals) of neighborhood & find pictures of adults & babies. Make bulletin board, learn to recognize names.

3. Have animal information read by teacher. Children write an informational article for one or more animals. A booklet could be made of stories.

4. Have a class period in which each child has a chance to tell when he saw one of these animals.

5. Discuss how many of these animals live here—why not more or less.

6. Put up bird pictures, have children learn to recognize them by picture. Have personal charts made & have child check if he sees bird each day of week. (cont.)

II. Outside Resource and Community Activities

A. Outside activity

1. Take field trips to school yard & neighboring woods to see birds.

2. Write a letter to ask permission to visit neighbor's woods. a. Take a field trip & list all animal life seen.

(cont.)
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<tr>
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<tr>
<td>The Kitchen-Window Squirrel, by</td>
<td>I. (cont.)</td>
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<tr>
<td>Harold Longman</td>
<td>7. As a culminating activity, have students</td>
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<td>about how living organisms react to changes.</td>
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<td>Begin with a question such as:</td>
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<td></td>
<td>a. What would happen if the sky were</td>
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<td>other day would come out white?</td>
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</table>

**Audio-Visual:**

**Community:**
Continued and Additional Suggested Learning Experiences

I. (cont.)

7. As a culminating activity, have a discussion about how living organisms react to each other. Begin with a question such as:
   a. What would happen if the skunk we smelled the other day would come out while we have recess?
3. Environmental factors are limiting numbers of organisms living in their influence, thus, each environment has a carrying capacity.

**BEHAVIORAL OBJECTIVES**

- **Cognitive:** The student will give an imaginative talk telling what happened to him as a frog, the student will find rhyming words in a poem.
- **Affective:** Each child decides if all frog eggs hatched and all frogs lived would there be room in the pond?

**Skills to be Learned**
- Giving an imaginative talk
- Listening for rhyming words
- Making accurate observations of the developing frog eggs.

**SUGGESTED LEAFLETS**

1. Student-Centered in class activity
   - Read & enjoy poem "Twenty Froggies" by George Cooper
   - Have children bring in frog eggs for observation. Have one aquarium with a few eggs and one aquarium overstocked with eggs. Have children watch results.
   - Have children give talks in which they make believe they are tadpoles or little frogs and tell what happened to himself.
   - Discuss what would happen if all the eggs hatched & the frogs lived in the ponds around school. Include food, shelter, space, enemies.
   - Make chart of the life cycle of a frog or where frogs live.
   - Learn to sing "Twenty Froggies."
   - Make a bulletin board about frogs.
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of organisms living
fluence, thus, each
carrying capacity.

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<td>6. Learn to sing &quot;Twenty Froggies.&quot;</td>
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<td>7. Make a bulletin board about frogs.</td>
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<td>Outside Resource and Community Activities</td>
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<tr>
<td>1. Have children look in library to find life cycle of frog.</td>
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<td>Twenty Froggies by George Cooper.</td>
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<td><strong>Audio-Visual:</strong></td>
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<td>Aquarium</td>
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<td>Frog eggs</td>
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Community:
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<td>Cooper</td>
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</table>
An adequate supply of pure water is essential for life.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The learner will tell a story about going without water. The learner will list ways he uses water at school.

**Affective:** The class will offer ways in which they use water. The list will be written on board.

**Skills to be Learned**

- Listing what could not be done if there was no water
- Giving a talk about the need of water
- Story-telling

**SUGGESTED LEARNING EX:**

1. **Student-Centered in class activity**
   - Show pictures of the many places in the world where water is found (ocean, lake, pond, river)
   - Show pictures of where there isn't water (deserts, tundras)
   - Make bulletin board of above pictures.
   - To see if water is essential, the children will not use any water for a given amount of time.
   - Children will list all things they were not able to do because of not being able to use water.
   - Children will tell story about a. how they felt when they couldn't use water b. why he needs water
   - The children could try to figure out a lunch menu or meal which would not use water.
SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   1. Show pictures of the many places in the world where water is found (ocean, lake, pond, river)
   2. Show pictures of where there isn't water (deserts, tundras)
   3. Make bulletin board of above pictures.
   4. To see if water is essential, the children will not use any water for a given amount of time.
   5. Children will list all things they were not able to do because of not being able to use water.
   6. Children will tell story about
      a. how they felt when they couldn't use water
      b. why he needs water
   7. The children could try to figure out a lunch menu or meal which would not use water.

II. Outside Resource and Community Activities
### Resource and Reference Materials

#### Publications:

**Audio-Visual:**
- pictures of where water is found & where water is not found

#### Community:
<table>
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45
C 5. An adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food.

BEHAVIORAL OBJECTIVES

Cognitive: Understand what air pollution is by watching experiments.

Affective: Each child will be given the opportunity to contribute to a class board list, any odor which has been brought to him by moving air.

Skills to be Learned
Increase acuity in observance

SUGGESTED LEARNING EXPERIENCE

I. Student-Centered in class activity
   A. Activities:
      1. Airsprays
      2. Fans
      3. Kites
      4. Balloons
      5. Chimneys

II. Outside Co-Op Program
   A. Practices:
      1. Practicing
      2. Contributing
      3. Observing
      4. Aiding
The supply of clean air is used by most organisms. During respiration, energy is obtained through the exchange of air, which has energy in their food.

**Discipline Area**: Language Arts  
**Subject**: Language Arts  
**Problem Orientation**: Clean air  
**Grade**: 1

### OBJECTIVES

Understand what is learned by watching activity in the classroom.

A child will be given the opportunity to see the class board which has been shown to him by the teacher.

### SUGGESTED LEARNING EXPERIENCES

#### I. Student-Centered in class activity

A. Activities:
1. Airsprays
2. Fans
3. Kites
4. Balloons
5. Chimneys

#### II. Outside Resource and Community Activities

A. Make windmills & pin onto pencil eraser. Take them out in air to show air current. Air moves & polluted air comes to us.

B. Cover a picture frame or cardboard frame with cheese cloth. Hang it in a tree & observe the things that catch on to it.
### Resource and Reference Materials

**Publications:**

- *Who Has Seen The Wind*

### Audio-Visual:

- Kites, balloons, paper
- Cheese cloth & frame
- Plastic bottle-cigarette

### Community:
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<th>Text Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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</table>
6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

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<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive: The student will listen to a story &amp; show understanding by planting his seeds and comparing plant life in different areas, giving reasons why the plant life is different.</td>
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</tr>
<tr>
<td>Affective: Teacher makes list on chalk board. Children will place a W or S before name of resource (Apple, Banana) that has to be shipped into our area either in summer and/or winter.</td>
<td></td>
</tr>
</tbody>
</table>

Skills to be Learned:
- Carrying out an individual project
- Comparing (land areas, requirement of different plant life)
- Organizing a talk
- Classifying

1. Student-Centered in class activity
   1. Read "Seeds & More Seeds" by Millicent Selsam.
   2. Plant seeds & care for them.
   3. Give talk in about a week's time telling why or why not the seeds grew (too much or too little water)
   4. Discuss - Could parts of the world be like reasons in No. 3.
   5. Make bulletin board showing swamps, deserts, good farm land, woods.
   7. Make a booklet of:
      a. Fruits growing in community & those shipped in all the time or part of the time.
      b. Same as (a) but use vegetables.
      c. Same as (a) but with flowers.
   8. Have an exhibit of No. 7.
Resources are not equally distributed over the earth or over time. This affects the geographic quality of life.

**Discipline Area** | **Language Arts**
---|---
**Subject** | **Comparison & Discussion**
**Problem Orientation Resource Usage Grade** | 1

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**SUGGESTED LEARNING EXPERIENCES**

**I. Student-Centered Class Activity**

1. Read "Seeds & More Seeds" by Millicent Selsam.
2. Plant seeds & care for them.
3. Give talk in about a week's time telling why or why not the seeds grew (too much or too little water)
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   b. Same as (a) but use vegetables.
   c. Same as (a) but with flowers.
8. Have an exhibit of No. 7.

**II. Outside Resource and Community Activities**

1. Visit schoolyard or neighborhood areas which show swamps, drainage ditches, sand hills, etc. On trip, compare what grows in each area.
### Resource and Reference Materials

#### Publications:
- Seeds & More Seeds by Millicent Selsam.

---

### Continued and Additional Suggested

#### Audio-Visual:
- Seeds - peas, garden beans & soybeans best.
- Containers in which to plant
- Pictures of swampy areas, deserts, good farm land, woods.
- Pictures fresh fruits, vegetables, flowers
- Real fruits & vegetables for a display

#### Community:
Factors such as facilitating transportation, economic conditions, population growth, discipline area, language and increased leisure time have great subject influence on changes in land use, centers of population density.

BEHAVIORAL OBJECTIVES

I. Student-Centered in class activity
A. Classroom activities
1. Have children tell:
   a. Where he lives
   b. Why he is there
   c. How he helps man or other animals
   d. Where he wishes he could live
2. Make a bulletin board, using the idea of the above activity.
3. Make believe some of the children are various animals, pen them up in pens, pens & others human visitors, what would the animals talk about?

ESTED LEARNING OBJECTIVES

C. Factors such as facilitating transportation, economic conditions, population growth, discipline area, language and increased leisure time have great subject influence on changes in land use, centers of population density.

BEHAVIORAL OBJECTIVES

I. Student-Centered in class activity
A. Classroom activities
1. Have children make believe he is one of the animals he knows, write letters to accomplished
   a. List necessary things to be learned
   b. Write letters
   c. List necessary things to be accomplished
   d. Writing stories

B. Affective: Children will voluntarily participate in a discussion on a teacher-made question. Example: Why don't we leave the animals in the woods where they are happy instead of penning them up in parks or zoos? After they have had a poll of hands to show who wants to pen the animals, have discussion on the reasons they chose.

Skills to be Learned

I. Student-Centered in class activity
A. Classroom activities
1. Have children make believe he is one of the animals he knows and tell:
   a. Where he lives
   b. Why he is there
   c. How he helps man or other animals
   d. Where he wishes he could live
2. Make a bulletin board, using the idea of the above activity.
3. Make believe some of the children are various animals in pens & others human visitors, what would the animals talk about?
SUGGESTED LEARNING EXPERIENCES

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
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</thead>
<tbody>
<tr>
<td>A. Classroom activities</td>
<td>A. Outside activities</td>
</tr>
<tr>
<td></td>
<td>1. Do necessary preparing for a bus field trip.</td>
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<td></td>
<td>a. Letters</td>
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<td>b. Phone calls</td>
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<td>c. Money needed</td>
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<td>d. List of what is to be observed or accomplished on the trip</td>
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<td>e. Discussion of how one should behave</td>
</tr>
<tr>
<td>1. Have children make believe he is one of the animals he knows and tell:</td>
<td>2. After the trip to a recreational area, the teacher will lead a discussion using all or some of these questions:</td>
</tr>
<tr>
<td>a. Where he lives</td>
<td>a. Why did we go to the trout ranch?</td>
</tr>
<tr>
<td>b. Where he wishes he could live</td>
<td>b. Why do other people go?</td>
</tr>
<tr>
<td>c. Why he is there</td>
<td>c. When is the trout ranch open to the public? Why?</td>
</tr>
<tr>
<td>d. How he helps man or other animals</td>
<td>d. Why do people from far away come here?</td>
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<td>e. Where do these people come from?</td>
</tr>
<tr>
<td>2. Make a bulletin board using the idea of the above activity.</td>
<td>f. Why do we like these people to come here?</td>
</tr>
<tr>
<td>3. Make believe some of the children are various animals in pens &amp; others are human visitors, what would the animals talk about?</td>
<td>g. Did these people always come from?</td>
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Student 

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Resou:

and Reference Materials

Publicati

Continued and Additional Suggested Learn

Audio-VisuLl:

Pictures of what is done in recreational areas

Community:

Resource unit such as:

Park
Zoo
Trout ranch
Swimming area
Water skiing area
Snowmobiling area
Fishing ponds
Boating area

II. (cont.)

Green Bay, Milwaukee, etc.? Why now?
h. Do these people bring something
i. Do these people bring something (Pollution)
j. What else happens because these
(Roads, materials for building,
3. Write a story about their trip.
Continued and Additional Suggested Learning Experiences

II. (cont.)

Green Bay, Milwaukee, etc.? Why are they coming now?

h. Do these people bring something we need? (Money)

i. Do these people bring something we don't need? (Pollution)

j. What else happens because these people come north? (Roads, materials for building, food)

3. Write a story about their trip.
Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

Cognitive: The student will write a letter asking permission and will choose one of the following to tell what happened on the trip: write, discuss, or list things.

Affective: How will you help to have a pretty place as we have one today?

**Skills to be Learned**

- Letter writing
- Making lists of necessary things to be done
- Identifying specimens
- Writing down one's thoughts on a specified topic
- Writing a story in sequence

**SUGGESTED LEARNING EXPERIENCES**

I. Student-Centered in class activity
   1. Read "The Clean Brook" by Margaret Bartlett.
   2. After field trip:
      Write or discuss about "I Liked The Field Trip" or "I Did Not Like The Field Trip."
   3. Write or discuss:
      What Can I Do To Enjoy The Out-of-doors More Often?
      a. learn more about it
      b. go to the woods more often
      c. preserve it
      d. don't pollute it
   4. Identify specimens taken on field trip.
   5. Write story of what was done on trip in sequential order.

II. Out-of-class activity
   1. Field trips
      a. Use your own part
      b. School projects
      c. Discussions
      d. Talks
      e. Oral presentation
      f. Writing reports
      g. Field research
      h. Discussions on current events
      i. Writing stories of field trips
      j. Identifying specimens
      k. Writing in sequential order
Discipline Area: Language Arts
Subject: Language Arts
Problem Orientation: Attitudes
Grade: 1

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
1. Read "The Clean Brook" by Margaret Bartlett.
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   b. go to the woods more often
   c. preserve it
   d. don't pollute it
4. Identify specimens taken on field trip.
5. Write story of what was done on trip in sequential order.

II. Outside Resource and Community Activities
1. Field trip
   a. Write for permission to use private roadway, privately owned area, & permission from parent to go.
   b. Collect jars & boxes for specimens.
   c. Discuss behavior on trip
   d. Teacher point out on trip:
      1) plant life
      2) water life
      3) quietness
      4) what noise does to area
      5) have all sit around & discuss what is seen
   6. Have children, with paper & crayons, draw something in area
   7. Eat lunch and proceed to classroom
### Resource and Reference Materials

<table>
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<th>Continued and Additional</th>
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</table>

**Publications:**

**Book:**
- *The Clean Brook* by Margaret Bartlett.

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**Audio-Visual:**

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**Community:**
- any outdoor area which children may enjoy:
  - a. wooded area
  - b. lake
  - c. river
  - d. pond
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<th>Materials</th>
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Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

BEHAVIORAL OBJECTIVES

Cognitive: The child will observe what happens to the resource snow under given circumstances by taking part in experiments that cause this change.

- Melting snow
- Spring rain

Affective: Is water best standing still or moving?

Skills to be Learned

Make trips to nearby creeks and rivers
Observation of experiment
Demonstrate a simple experiment
Listen for information
Oral reports on observations

SUGGESTED LEARNING ACTIVITY

I. Student-Centered in class activity

1. Demonstration of what happens to snow.
2. Activities: Two pans in room:
   a. One filled with snow
      1) Evaporates
   b. Soil covered with snow
      1) earth absorbs moisture
   c. Keep chart of which melts first - time it takes - what happens
3. As snow melts in spring, water finds its way to our creeks & rivers
   a. Box filled with dirt, soil piled high on one side. Pour water on high side to show how water finds its way to lower levels (creeks).
4. Flooding caused by swelling of rivers:
   a. Sand box made into level land, rivers, valleys, & high elevations.
5. People lose homes from floods:
   a. Make milk carton houses (for city) & trees for villages. Pour water (Cont.
<table>
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<th>SUGGESTED LEARNING EXPERIENCES</th>
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   1. Demonstration of what happens to snow.
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      a. Sand box made into level land, rivers, valleys, & high elevations.
   5. People lose homes from floods.
      a. Make milk carton houses (for city) & trees for villages. Pour water (Cont.)
Resource and Reference Materials

Publications:
- News Pilot (Scholastic)

Continued and Additional Suggestions

1. (Cont.)
   swiftly into the rivers.
   to milk carton houses and
b. Make two trees - cut one
   one down from top and sli
6. Draw pictures in sequence
   to become water.

Audio-Visual:
- pans with soil & water
- sand box
- newspaper pictures
- posters - the inspiring beauty of
  our natural environment
- Film - "Winter Snows"

Community:
Continued and Additional Suggested Learning Experiences

I. (Cont.)

swiftly into the rivers. Watch what happens to milk carton houses and trees.

b. Make two trees - cut one up from bottom, one down from top and slip together to stand. 

6. Draw pictures in sequence of how snow melts to become water.
C 10. Short-term economic gains may produce long-term environmental losses.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING</th>
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<tbody>
<tr>
<td>Cognitive: Through dramatization by puppets, the children will show the long-term result of careless planning. Affective: Children will voluntarily judge that short-term gains are not really gains at all in the long run.</td>
<td>I. Student-Centered in class activity A. Classroom 1. Read, 'Why the Bear Lost his Beautiful Tail' to the children. 2. In a discussion, point out the fact that the bear wanted something quickly but did it in a foolish way, suffering a loss which cannot be replaced. 3. Have the children tell why the bear could have done something which would have been more sensible. (It should have been planned.) 4. The children can make puppets and act out the folktale.</td>
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Skills to be Learned
- Dramatization
- Discussion
- Audio skills
term economic gains may

Long-term environmental

AL OBJECTIVES
through dramatization, the children will show the long-term consequences of careless decisions. Students will judge that short-term gains are not really valuable in the long run.

Problem Orientation
Conservation
Grade K-1

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
A. Classroom
1. Read, "Why the Bear Lost his Beautiful Tail" to the children.
2. In a discussion, point out the fact that the bear wanted to get something quickly but did it in a foolish way, suffering a loss which could not be replaced.
3. Have the children tell what the bear could have done which would have been more sensible. (It should have been planned.)
4. The children can make puppets and act out the folktale.

II. Outside Resource and Community Activities
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
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<tbody>
<tr>
<td><strong>Publications:</strong></td>
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<td><strong>Story:</strong></td>
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<tr>
<td>Why the Bear Lost his Beautiful</td>
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<td>Tail</td>
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<td><strong>Audio-Visual:</strong></td>
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<td><strong>Community:</strong></td>
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<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
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<td>Beautiful</td>
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</table>
Individual acts, duplicated or compounded, produce significant environmental alterations over time.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** During a week's period the children will make a graph & put checks behind their names as to how many pieces of litter they have picked up. Give a short oral report on the effect of their own private clean-up campaign.

**Affective:** On the way to & from school, the child will watch for litter. This will be reported on the next day with ideas of what should have been done with the litter.

**Skills to be Learned**
- Observing
- Speaking
- Vocabulary enrichment
- Litter - pollution & street cleaners

**SUGGESTED LEARNING EX:***

I. Student-Centered in class activity

II. Out Comm A. O

ESEA Title III - 59-70-0135-1 Project I-C-E
## SUGGESTED LEARNING EXPERIENCES

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<th>I. Student-Centered in class activity</th>
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<tr>
<td></td>
<td>A. Outside classroom</td>
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<tr>
<td></td>
<td>1. Yard trip for children to see the articles that have been dropped by careless people.</td>
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<td>2. Field trip to a park or picnic ground to arouse feelings in children about environment used by the public.</td>
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<td>3. Reports after they return to school.</td>
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<td>4. Drawings of the devastation that was caused at park or picnic grounds.</td>
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<tr>
<td>Resource and Reference Materials</td>
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<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>Smokey, the Bear, story &amp; song</td>
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<tr>
<td>Keep Our World Clean, song sheet</td>
<td></td>
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<tr>
<td>available at CESA #9 Office</td>
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<tr>
<td>This Land is Your Land, song sheet</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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<tr>
<td>TV - radio, newspaper articles</td>
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<td>to report on</td>
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<td>Conservation film</td>
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<td><strong>Community:</strong></td>
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<td>Neighborhood trips</td>
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</tr>
<tr>
<td>Resource person from ConservationDept.</td>
<td></td>
</tr>
<tr>
<td>Pick up things on their way to school as their contribution to &quot;Clean Up&quot;</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
</tr>
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</tbody>
</table>
Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Behavioral Objectives

Cognitive: The student will learn how to properly use a telephone. The student will also discuss how our land should be treated & compare the past, present & future.

Affective: Using pictures of land areas which have been harmed or left unharmed, each child will explain what caused the good or bad situation.

Skills to be Learned

Learning to make a polite telephone call
Time lapses
Speech skills: Introduction Clarity Closing

Suggested Learning Environment

I. Student-Centered in class activity
A. Classroom
   1. Discuss telephone etiquette.
   2. Place a telephone call to get permission to walk on neighbor's field.

II. 

Discipline Area: Language
Subject: Language
Problem Orientation: Environment
acts, duplicated
produce significant changes over time.

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
<td></td>
</tr>
<tr>
<td>A. Classroom</td>
<td></td>
</tr>
<tr>
<td>1. Discuss telephone etiquette.</td>
<td></td>
</tr>
<tr>
<td>2. Place a telephone call to get permission to walk on neighbor's field.</td>
<td></td>
</tr>
<tr>
<td>II. Outside Resource and Community Activities</td>
<td></td>
</tr>
<tr>
<td>A. Out of class</td>
<td></td>
</tr>
<tr>
<td>1. Visit a farm field.</td>
<td></td>
</tr>
<tr>
<td>2. Sit down at field's edge &amp; talk about:</td>
<td></td>
</tr>
<tr>
<td>a. What was this like when your grandfather was a little boy or when Indians were here?</td>
<td></td>
</tr>
<tr>
<td>b. What has been done to the land since then?</td>
<td></td>
</tr>
<tr>
<td>c. Why has this been done?</td>
<td></td>
</tr>
<tr>
<td>d. What will this land be like in 10 or 50 years?</td>
<td></td>
</tr>
<tr>
<td>e. How can it be made into poor land?</td>
<td></td>
</tr>
<tr>
<td>f. How can it be kept a good land?</td>
<td></td>
</tr>
<tr>
<td>g. Why do we want it to be kept as a good crop land?</td>
<td></td>
</tr>
<tr>
<td>3. Have children bring in pictures of land areas which have been harmed by man &amp; those which have been kept good by man.</td>
<td></td>
</tr>
<tr>
<td>4. Have children give oral reports on what they observed on their trip.</td>
<td></td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggested Learning</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
</tr>
<tr>
<td>Audio-Visual:</td>
<td></td>
</tr>
<tr>
<td>Community:</td>
<td></td>
</tr>
</tbody>
</table>
Continued and Additional Suggested Learning Experiences
Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The learner will dramatize either how books should or should not be taken care of, and will list school property which should be cared for.

**Affective:** The student will adopt better ways for caring for school property.

**Skills to be Learned**
- Dramatizing how books should or should not be used.
- Learning to take turns in discussions.

**SUGGESTED LEARNING EXPERIENCE**

1. **Student-Centered in class activity**
   - The children will look at the trees through the windows and then the teacher will list ways in which they are used stressing paper making which becomes their textbooks.

2. Show filmstrip, How to Take Care of Books.

3. Have children dramatize the correct or incorrect way to handle books.

4. Discuss why school books should be cared for.

5. From discussion in number four, list other school property which should be cared for; children may want to tell how to care for each article listed.

6. Discuss how our taking care of property now will help our future. (Include with this, that if we mar our books, will the first graders
   (cont.)
The ownership must be a stewardship and not encroach upon or violate the legal right of others.

**AL OBJECTIVES**

<table>
<thead>
<tr>
<th></th>
<th>I. Student-Centered in class activity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. The children will look at the trees through the windows and then the teacher will list ways in which they are used stressing paper making which becomes their textbooks.</td>
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<td></td>
<td>6. Discuss how our taking care of property now will help our future. (Include with this, that if we mar our books, will the first graders (cont.)</td>
</tr>
</tbody>
</table>

**SUGGESTED LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th>II. Outside Resource and Community Activities</th>
</tr>
</thead>
</table>

**Discipline Area** Language Arts

**Subject** Dramatization

**Problem Orientation** Public

**Grade** 1

**Property**
### Resource and Reference Materials

#### Publications:

<table>
<thead>
<tr>
<th>Continued and Additional Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. (Cont) coming next year enjoy reading</td>
</tr>
<tr>
<td>7. If children are interested, discuss other things (parks, roads) families pay taxes.</td>
</tr>
<tr>
<td>8. Some children may want to tell places where the public goes, often paid for by taxes.</td>
</tr>
</tbody>
</table>

### Audio-Visual:

- How to Take Care of Books, filmstrip

### Community:
1. (Cont)
coming next year enjoy reading as much as we have?
7. If children are interested, discuss where we use other things (parks, roads) for which our parents pay taxes.
8. Some children may want to tell about actions in places where the public goes, but are not aid for by taxes.
In commenting on each episode used in your class, you may wish to format. Please feel free to adapt it and add more pages. Let us know comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)
**SUGGESTED LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Student-Centered in class activity</strong></td>
</tr>
<tr>
<td><strong>A. Introduce the essentials of group discussion or planning</strong></td>
</tr>
<tr>
<td><strong>B. Introduce an environmental cause (glass disposal, paper disposal)</strong></td>
</tr>
<tr>
<td><strong>C. Make classroom committees responsible for:</strong></td>
</tr>
<tr>
<td>1. Writing handout sheets</td>
</tr>
<tr>
<td>2. Writing newspaper articles</td>
</tr>
<tr>
<td><strong>D. Check sources for ideas which could be used to increase community impact</strong></td>
</tr>
<tr>
<td><strong>II. Outside Resource and Community Activities</strong></td>
</tr>
<tr>
<td><strong>A. Carry on a bottle drive in the community following the distribution of publicity materials.</strong></td>
</tr>
<tr>
<td><strong>B. The signing on a pledge could be used to create community support.</strong></td>
</tr>
<tr>
<td><strong>C. Distribute pledge (petition) to stores, village board, etc. to show support for exclusion of non-returnable bottles.</strong></td>
</tr>
<tr>
<td><strong>D. Evaluate community reaction.</strong></td>
</tr>
<tr>
<td>1. Perceivable responses</td>
</tr>
<tr>
<td>2. Any changes</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td><strong>Publications:</strong></td>
</tr>
<tr>
<td>The English Language</td>
</tr>
<tr>
<td>Ref. Group discussion and planning</td>
</tr>
<tr>
<td>Current issues of weeklys</td>
</tr>
<tr>
<td>Reader's Guide to Periodical</td>
</tr>
<tr>
<td>Literature</td>
</tr>
<tr>
<td>Speaking by Doing</td>
</tr>
<tr>
<td>National Textbook Co.</td>
</tr>
<tr>
<td>Skokie, Illinois</td>
</tr>
<tr>
<td>(Shows all different speech</td>
</tr>
<tr>
<td>formats)</td>
</tr>
</tbody>
</table>

**Audio-Visual:**

**Community:**
Continued and Additional Suggested Learning Experiences
12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

BEHAVIORAL OBJECTIVES

Cognitive: In groups, members have an opportunity to listen, speak, take notes, and organize their thoughts. Smaller groups often allow more informal approach. Both chairmen, and finally the teacher, can quiz groups on their notes on organization of thoughts.

Affective: At end of chairman's reports, entire class might be tested by an essay question, on their beliefs regarding the concept as it appears in these writings. An open-ended discussion after final reports is another possibility.

Skills to be Learned

Listening
Speaking
Note-taking
Organizing notes

SUGGESTED LEARNING ACTIVITY

I. Student-Centered in class activity

A. Divide the class into groups. Each group (of 6-8 students) could read 3 of the 4 named works. Using a chairman as spokesman, each group could develop the concept as it exists in each of the three works read.

B. Group meetings in which each member of each group should be encouraged to express orally, and in writing, his ideas about Keane's, Melville's, Clark's, and Updike's concepts of ownership.

C. Conduct a chairman's meeting to sum up findings.

D. Chairmen report to class on findings of various groups.
Ownership must be re-

teward and should not be 
upon or violate the 
right of others.

**OBJECTIVES**

- Opportunity to take notes, share thoughts.
- Often allow for a quiz on notes on a particular day.
- End of class reports, entire class tested by discussion, on each day regarding what it appears they have learned.
- Discussion and reports is a priority.

**SUGGESTED LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Divide the class into groups. Each group (of 6-8 students) could read 3 of the 4 named works. Using a chairman as spokespan, each group could develop the concept as it exists in each of the three works read.</td>
<td>A. Bring in speakers knowledgeable about literature to speak about different authors.</td>
</tr>
<tr>
<td>B. Group meetings in which each member of each group should be encouraged to express orally, and in writing, his ideas about Keane's, Melville's, Clark's, and Updike's concepts of ownership.</td>
<td></td>
</tr>
<tr>
<td>C. Conduct a chairman’s meeting to sum up findings.</td>
<td></td>
</tr>
<tr>
<td>D. Chairmen report to class on findings of various groups.</td>
<td></td>
</tr>
</tbody>
</table>
Resource and Reference Materials

Publications:
Pigeon Feathers and Other Stories
John Updike

The Field
J. B. Keane

Bartleby the Scrivener
Herman Melville

The Ox Bow Incident
Walter VanTilky Clark

Audio-Visual:
Collages by students, based on their mental pictures of Updike's stories and their relationship to the concept, that private ownership should not disturb others' rights.

Community:
Outside speakers with emphasis on literature, perhaps a local person who is a writer, a minister (specifically, one who might recognize Melville's Calvinistic overtones), or a different English teacher.
<table>
<thead>
<tr>
<th>Other Stories</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
</table>

Based on the relationship of Updike's and a local disturbance, one who disturb
Another emphasis of a local a
was, one who disturb her.

346 347
In commenting on each episode used in your class, you may wish to adapt the format. Please feel free to adapt it and add more pages. Let us know your comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In-Class:

   B. Outside & Community Activities:

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

For each episode used in your class, you may wish to duplicate this suggested form free to adapt it and add more pages. Let us know all your critiques and opinions.

Objectives

Session Experiences

Community Activities:

Reference & Reference Materials

Questions & Comments)
A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA  Language Arts  GRADE  12

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin  54301
(414) 432-4338

Robert Warp
Robert Kell
George Howl
PROGRAM FOR ENVIRONMENTAL EDUCATION

Language Arts GRADE 12

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist
PREFACE

If you wish to excite students about their environment, help of over a hundred teachers, year long meetings, a summer work ecologists, this guide means realistic, developed aid for you which have directed teachers in writing and editing this guide 1. This guide is supplementary in nature and the episodes are ces—to plug into existing, logical course content.

2. Each page or episode offers suggestions. Since you know to adapt, adopt, or use. By design, the range of suggesti mentation and usage are even wider. Many episodes are sel others can be changed in part or developed more keenly over possibilities allow you to explore.

3. Now we urge that you try the episodes and suggested learn plan. The reasons are simple. No guide has all the answer unless viewed in the context of your classroom situation. give it a triple reading, check over the resources listed, prime your students, and seek help. The Project personnel knowledgement page stand ready to aid your efforts. Feel

4. The Project Resource Materials Center serves all CESA 3, private. We will send available materials pre-paid. Call visit. Phone 432-4338.

5. Check often the Project ICE Bibliography in your school li Center materials. Please offer suggestions, comments, or service may grow. Let's help each other.

6. Involve yourself with the guide by reacting to it with scr suggestions on the episode pages or use the attached evalu lected in late May next year and will be used in our revis reactions and suggestions—negative and positive. Please in the episodes may refer to specific, local community res cases, individual school districts and teachers will have stitutes. A list of terms pertinent to the episodes is be

7. Ecologists and other experts have simplified the issue—su Creation's beauty and complexity—often noted as the work and human energy to save. A year's work by a hundred of y gesture. Without you, their work will crumble, and so mig let us live to think, feel, and act in harmony with our wo

1. Cognitive means a measurable mental skill, ability, or
2. Affective refers to student attitudes, values, and feel
3. APWI means Acceptable Performance Will Include (labels
4. EPA - Environmental Problem Area
PREFACE

to excite students about their environment, help is ready. Thanks to the efforts of teachers, year long meetings, a summer workshop, university consultants and this guide means realistic, developed aid for you. Please note the following ideas
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Its supplementary in nature and the episodes are designed—at appropriate instant-
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or episode offers suggestions. Since you know your students best, you decide what
adopt, or use. By design, the range of suggestions is wide; your chances for exper-
ence are even wider. Many episodes are self-contained, others open-ended, still
be changed in part or developed more keenly over a few weeks. These built-in
oes allow you to explore.

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page stand ready to aid your efforts. Feel free to ask their help in pre-planning.

Resource Materials Center serves all CESA 3, 8, and 9 area schools—public and
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grow. Let’s help each other.

self with the guide by reacting to it with scratch ideas, notes, and extended
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May next year and will be used in our revisions. We sincerely want your
and suggestions—negative and positive. Please note that some resources listed
es may refer to specific, local community resources or conditions. In such
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list of terms pertinent to the episodes is below.

and other experts have simplified the issue—survival—yours, mine, our students,
ality and complexity—often noted as the work of a genius—will take our genius
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to think, feel, and act in harmony with our world.

— — — — — — — — — — — -
Editorial Board

means a measurable mental skill, ability, or process based on factual data.
refers to student attitudes, values, and feelings.

s Acceptable Performance Will Include (labels a cognitive or mental performance.)
ronmental Problem Area
ACKNOWLEDGEMENTS: The following teachers and consultants part of the Supplementary Environmental Education:

**CESA #3**
- Eugene Anderson, Peshtigo
- Laura Berken, Oconto Falls
- Willard Collins, Crivitz
- John Cowling, Niagara
- Nicholas Dal Santo, Pembine
- Robert Dickinson, Oconto
- Ann Fuhrmann, Marinette
- Lillian Goddard, Coleman
- William Harper, Lena
- Robert Herz, St. James (L)
- Ester Kaatz, Wausaukee
- Michael Kersten, Suring
- Douglas Koch, Cath. Central
- Donald Marsh, Bonduel
- David Miskulin, Goodman
- Don Olsen, Shawano
- Elmer Schabo, Niagara
- Marion Wagner, Gillett
- Ruth Ward, Crivitz
- George Kreiling, Marinette
- Marg. McCambridge, White Lake
- Virginia Pomusl, White Lake
- Gailen Braun, Lena
- Kay DePuydt, Gillett
- Lousene Benter, Gillett

**CESA #8**
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- William Behring, Lourdes
- David Bell, Neenah
- Marie Below, Clintonville
- William Bohne, Kimberly
- Bob Church, Little Chute
- Ronald Conradt, Shiocton
- Lee Halberg, Appleton
- Ronald Hammond, Hortonville
- Jerome Hennes, Little Chute
- Barbara Huth, Menasha
- Darrell Johnson, Hortonville
- Bernadyne King, Neenah
- Harold Lindhorst, St. Martin (L)
- John Little, Winneconne
- Gordon Rohloff, Oshkosh
- William Schaff, St. Joseph
- Doris Stehr, Mt. Calvary (L)
- Carolyn Shills, New London
- Sister Dorothy, Xavier
- Clarence Trentlage, Freedom
- Mike Hawkins, Xavier
- Beth Hawkins, Xavier
- Ed Patschke, Menasha
- Connie Peterson, St. Martin (L)
- Dallas Werner, Kaukauna
- Ron Schreier, Omro

Consultant Staff
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- Charles Richards, UW-Marinette
- Ednajean Purcell, OSU
- David West, Lawrence U.
The following teachers and consultants participated in the development of the Supplementary Environmental Education Guide:

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- Mike Hawkins, Xavier
- Beth Hawkins, Xavier
- Ed Patschke, Menasha
- Connie Peterson, St. Martin (L)
- Dallas Werner, Kaukauna
- Ron Schreier, Omro

CESA #9

- Joan Alioto, Denmark
- Angela Anthony, Gibraltar
- Harold Baeten, St. Norbert
- Anthony Balistreri, Howard-Suamico
- Lillian Berges, Seymour
- Carmella Blecha, Green Bay
- Joan Charnetski, Sevastopol
- Billie Feichtinger, Green Bay
- Rev. B. Frigo, Abbot Pennings
- Robert Haen, Luxemburg-Casco
- Russ Hamset, Seymour
- Paul Kane, Ashwaubenon
- Roy Lukes, Gibraltar
- Sister Anna, St. Philips
- Jim Maki, Sturgeon Bay
- Joyce Mateju, Algoma
- Richard Minten, W. DePere
- Gloria Morgan, Linsmeier Private
- George Pederson, Southern Door
- Allan Schuh, Pulaski
- Thomas Weyers, Cathedral
- Ruth Windmuller, Green Bay
- James Wiza, DePere
- John Torgerson, Kewaunee
- Benjamin Roloff, Howard-Suamico
- Greg Schmitt, Cathedral
- John DeWan, Green Bay
- Emmajean Harmann, Sevastopol
- Ray Gantenbein, Green Bay
- David Bartz, Sturgeon Bay
- John Hussey, Green Bay
- Sister Barbara, St. Bernard

CESA #8

- Ednajean Purcell, OSU
- UW-Marinette David West, Lawrence U.

CESA #9

- Robert Cook, UWGB
- Dennis Bryan, UWGB
C 1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive: The student will produce a film with voice and/or music sound track which illustrates that the sun is the source of all energy.</td>
<td>1. Student-Centered In class activity</td>
</tr>
<tr>
<td>Affective: Using creative portrayal of the sun's effect the student will develop a positive attitude and understanding of the sun's effects.</td>
<td>2. Instruction in use of &quot;Super 8&quot; camera.</td>
</tr>
<tr>
<td>Skills to be Learned</td>
<td>3. Instruction in use of sound with &quot;Super 8&quot; equipment.</td>
</tr>
<tr>
<td>Film making</td>
<td>4. The &quot;production team&quot; is organized and instructed by teacher. The production team will discuss the concept and come up with ideas for a scenario dealing with how the sun affects life around them.</td>
</tr>
<tr>
<td>Narration of film</td>
<td>5. Each &quot;production team&quot; develops a &quot;scenario outline&quot; geared to the concept of the sun.</td>
</tr>
<tr>
<td>Ability to discover and capture on film, concrete manifestations of ecological concepts.</td>
<td>6. Each &quot;scenario outline&quot; is analyzed and revised, first by student groups, finally by the teacher.</td>
</tr>
</tbody>
</table>

Discipline Area: Subject: Problem Oriented
the basic source

assisted through plant

form all living

processes.

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Language Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>English</td>
</tr>
<tr>
<td>Problem Orientation</td>
<td>Energy</td>
</tr>
</tbody>
</table>

### SUGGESTED LEARNING EXPERIENCES

#### I. Student-Centered Class Activity

1. Instruction in use of "Super 8" camera.
2. Instruction in use of sound with "Super 8" equipment.
3. The "production team" is organized and instructed by teacher. The production team will discuss the concept and come up with ideas for a scenario dealing with how the sun affects life around them.
4. Each "production team" develops a "scenario outline" geared to the concept of the sun.
5. Each "scenario outline" is analyzed and revised, first by student groups, finally by the teacher.
6. A "mock" take is made by one team as other team and instructor observe.
7. "Mock take" is criticized and revised.
8. "Shooting."
10. Adding sound.

#### II. Outside Resource and Community Activities
Resource and Reference Materials

<table>
<thead>
<tr>
<th>Publications:</th>
<th>Continued and Additional Suggested Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kodak's &quot;How to Make a Movie&quot;</td>
<td>I. (cont.)</td>
</tr>
<tr>
<td>&quot;Famous T.V. Plays&quot;, Gore Vidal.</td>
<td></td>
</tr>
<tr>
<td>Audio-Visual:</td>
<td></td>
</tr>
<tr>
<td>&quot;Super 8&quot; camera</td>
<td></td>
</tr>
<tr>
<td>&quot;Super 8&quot; projector</td>
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<td>Film</td>
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<td>Projection Screen</td>
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<td>Sound equipment</td>
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<td>Editing equipment</td>
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<tr>
<td>Community:</td>
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<tr>
<td>Local theatre group or drama society.</td>
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</tbody>
</table>
Continued and Additional Suggested Learning Experiences

I. (cont.)

11. Viewing.
12. Class evaluation of production and the ideas contained therein.
All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

BEHAVIORAL OBJECTIVES

Cognitive: Given the raw data, the student is to discover the thesis inherent in that data, and he is to state that thesis in sentence form, and he is to support that thesis in a formal essay.

Affective: To experience the process of discovery, and from this experience, begin to value the ability to synthesize. In short, each student should be able, not only to analyze data, but also to use (synthesize) the data in an organized manner.

Skills to be Learned
Analysis of data
Statement of thesis
Composition of Supporting Evidence in formal style

I. Student Centered in class activity
A. Present "raw" data (See attached sheet).
B. Students are to individually analyze the raw data.
C. Students are to state (in a single sentence) the thesis which they have derived from their analysis of the raw data.
D. Students are to write a brief formal essay in which they present the thinking which in their analysis of the raw data, led to the conclusion (thesis) they individually formulated.
E. Class discussion of the various analyses of the raw data.
F. Suggestions for Raw Data
1. Wolf population on Isle Royale
2. Deer herds
3. Trees
4. Other items of the student's choice

Discipline Area
Languages
Subject: Environmental Studies
Problem Orientation

SUGGESTED LEAFLET
Project I-C-E
EDTA Title III - 59-70-0135-1
and their environment, an intricate unit called

The organism interact among

Given the raw data, the student is to make a thesis inference, and he is to write this thesis in a single sentence. He is to experience the process of discovery, to use his own experience, to derive the ability to analyze data. In short, he should be able to analyze data, to use (synthesize) his own experience, and to organize the thesis which he has derived from their analysis of the raw data.

D. Students are to write a brief formal essay in which they present the thinking which in their analysis of the raw data, led to the conclusion (thesis) they individually formulated.

E. Class discussion of the various analyses of the raw data.

F. Suggestions for Raw Data
   1. Wolf population on Isle Royale
   2. Deer herds
   3. Trees
   4. Other items of the student's choice

---

SUGGESTED LEARNING EXPERIENCES

I. Student Centered in class activity
   A. Present "raw" data
      (See attached sheet).
   B. Students are to individually analyze the raw data.
   C. Students are to state (in a single sentence) the thesis which they have derived from their analysis of the raw data.
   D. Students are to write a brief formal essay in which they present the thinking which in their analysis of the raw data, led to the conclusion (thesis) they individually formulated.
   E. Class discussion of the various analyses of the raw data.
   F. Suggestions for Raw Data
      1. Wolf population on Isle Royale
      2. Deer herds
      3. Trees
      4. Other items of the student's choice

II. Outside Resource and Community Activities

---

SEL Second Sheet
for raw data
Resource and Reference Materials

Publications:

Invention and Topics: Or Where to Look for Something to Say, by Scott Elledge, p. 11.

(Published by Commission on English of the College Entrance Examination Board)

Wisconsin Dept. of Natural Resources

Michigan Conservation Dept.

Audio-Visual:

Community:

Students each seek raw data to present to class members.

This graph is to be prepared with this direction: "write a statement explaining i.e. account for the different.
This graph is to be presented to the students with this direction: "Analyze this graph, and write a statement explaining what it shows, i.e., account for the differences."
Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

**BEHAVIORAL OBJECTIVES**

- **Cognitive:** In modern drama, the student will be able to isolate actions of characters which are influenced by the area in which they live through their interviews and discussion of the problem.

- **Affective:** By researching and comparing the attitudes of people about city life, the student will find that man, through managing and mis-managing his environment, can indirectly alter his attitudes and his life style by advocating good management techniques.

**SUGGESTED LEARNING ACTIVITY**

1. Student-Centered in class activity
   - A. The class will orally read the play Street Scene.
   - B. After reading, the class will discuss how the carrying capacity influenced the attitudes and actions of the characters.
   - C. Discuss how one person in such a close situation can influence the life of another.

**Skills to be Learned**
- Interpretive reading skills
- Comparisons of actions in relationship to an ecological problem
- Interviewing skills
Environmental factors are limiting the growth of organisms living in a particular area. Thus, each species has a carrying capacity, which is influenced by the environment they live in and the attitudes of the people who live in that environment. This can alter their life-style and their ability to survive.

Objectives:

1. Be able to understand the influence of the environment on the attitudes of characters in modern drama.
2. Recognize how the carrying capacity influences the attitudes and actions of the characters.
3. Discuss how one person in such a close situation can influence the life of another.

Suggested Learning Experiences:

I. Student-Centered Activity
   A. The class will orally read the play Street Scene.
   B. After reading, the class will discuss how the carrying capacity influenced the attitudes and actions of the characters.
   C. Discuss how one person in such a close situation can influence the life of another.

II. Outside Resource and Community Activities
   A. Interview people who have lived in a large city regarding their attitudes on city life.
### Resource and Reference Materials

#### Publications:
- **Street Scene** - Elmer Rice
- **Time of Your Life** - William Saroyan
- Washington Square Paperback, publisher

#### Audio-Visual:

#### Community:
- Members of the Community
C 4. An adequate supply of pure water is essential for life.

Cognitive: To organize a newspaper campaign to draw attention to the need for solutions to problems drawing from an inadequate water treatment center.

Affective: By getting the student actively involved in a civic problem that is immediate & relevant, he will understand the importance of pure water to his life as he researches the history of the city plant & discusses his findings.

Skills to be Learned
- Ability to analyze data, to establish the crux of the matter, to effectively report findings

SUGGESTED LEARNING
I. Student-Centered in class activity
   A. Research
      1. History of the current city plant
      2. Report the standards set for the city which the student resides.
      3. Report present conditions to write a comparison.
      4. Write the newspaper articles to support your campaign.
Discipline Area: Language Arts
Subject: English
Problem Orientation: Treatment plant
Grade: 12

### Objectives
- Organize a plan to draw need for problems with inadequate center.
- Retaining the involved that relevant, and the are water the history plant & findings.

### Suggested Learning Experiences

#### I. Student-Centered in class activity

- **Research**
  1. History of the current city plant
  2. Report the standards set for the city which the student resides.
  3. Report present conditions to write a comparison.
  4. Write the newspaper articles to support your campaign.

#### II. Outside Resource and Community Activities

- **A. Interview city officials and residents to discuss the situation.**
- **B. Take findings to the class with an oral report or set up a panel discussion.**
- **C. Tour the processing plant to get a first hand look. Write a report of your personal reaction.**
- **D. Tour water treatment center.**
Resource and Reference Materials

Publications:
The Sea Around Us, R. Carson
The Master Builder, Ibsen

Audio-Visual:

Community:
Resource people in the community
Water plant
City engineer
Doctors & health officials
An adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Using the media of editorial writing the student will be able to construct a sound logical editorial based on a community problem.

**Affective:** The student will demonstrate his understanding that clean air is essential for life by writing a letter to the editor urging the curbing an air pollution source.

**Skills to be Learned**
- Determining community problems
- Writing of editorials
- Evaluation of editorials

**SUGGESTED LEARNERS**

I. Student-Centered in class activity

1. Present two pictures—one with abundant clean air; the other with polluted air. Why would be more conducive to life? Why?

2. What problems are created by lack of clean air? Discuss.

3. Survey community for example of air pollution. Research examples for reasons why air pollution is allowed.

4. Discuss in what ways this example creates other problems and why is it necessary in the community to allow them to pollute.

5. Write editorials or "letters to the editor" urging the curbing of air pollution in the community.

6. Select the best paper and submit it to the local newspaper.
The supply of clean air is a necessity for most organisms. Oxygen, through respiration, enters the body and is used to produce energy in their food.

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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<tbody>
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<td>II. Outside Resource and Community Activities</td>
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<tr>
<td>3. Survey community for example of air pollution. Research examples for reasons why air pollution is allowed.</td>
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<tr>
<td>4. Discuss in what ways this one example creates other problems and why is it necessary in this community to allow them to pollute.</td>
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<tr>
<td>5. Write editorials or &quot;letters to the editor&quot; urging the curbing of sources of air pollution in the community.</td>
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<td>6. Select the best paper and submit it to the local newspaper.</td>
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<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggestions</td>
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<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>Newspaper for examples of editorials.</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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<tr>
<td>SMOG: The Air Pollution Game</td>
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<tr>
<td>Environmental Pollution...Our World in Crisis - Ward's filmstrip</td>
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<tr>
<td><strong>Community:</strong></td>
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<tr>
<td>Editorial writer of local newspaper.</td>
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</tbody>
</table>
Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Students will be able to take notes, to view things from others point of view, through listening to authorities on given subjects and thru their discussion.

**Affective:** Through discussion, students will become aware of different life styles & how natural resources shape these life styles by participating in an open-ended discussion involving every student.

**Skills to be Learned**
- Notetaking
- Listening
- Discussion techniques
- Role-playing - seeing things from various points of view

**SUGGESTED LEARNING**

1. **Student-Centered in class activity**

   1. Student discussion in which some students (or all) might role-play Indian & white attitudes. Discussion would center on apparent differences in values systems of Indians & whites as illustrated in speakers' views, as seen on field trip.
<table>
<thead>
<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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<tr>
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<td>1. Student discussion in which some students (or all) might role-play Indian &amp; white attitudes. Discussion would center on apparent differences in values systems illustrated in speakers' views, as seen on field trip.</td>
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<tr>
<td><strong>II. Outside Resource and Community Activities</strong></td>
<td></td>
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<tr>
<td>1. Speaker on Indians use of land &amp; students ask questions; take notes.</td>
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<tr>
<td>2. Speaker on white man's use of land - students ask questions; take notes.</td>
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</tbody>
</table>
| 3. Field trip, together or individually, to "areas" in nature managed,  
  (in nature) managed, to another area managed basically by Indians. |  |
Resource and Reference Materials

<table>
<thead>
<tr>
<th>Publications:</th>
<th>Continued and Additional Suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Next Hundred Years by Harrison Brown, Viking Press, 1957.</td>
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</tbody>
</table>

Audio-Visual:
- Student-created collages of various people's use or misuse of land
- Pictures or slides taken on field trip
- Records on this area or problem

Community:
- Speaker - Indian leaders, industry spokesman, DNR spokesman
- Historical records - local library, including pictures of given areas, then & now.
<table>
<thead>
<tr>
<th>Harrison 7.</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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</table>

- [Image]
7. Factors such as facilitating transportation, economic conditions, population growth, Discipline Area Language and increased leisure time have a great influence on changes in land use and centers of population density.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive: Students will work on their reading skills for characterization, theme... Students are afforded the chance to work on writing skills-organization, argument, synthesis, conclusion, etc. Students work at listening carefully-taking notes. Check them against a playback of the speaker's talk. Affective: Students think about influences of mass society on their lives. These influences-e.g. of mass media-might be the subject. Students become more sophisticated concerning life styles especially if they are enabled to see middle, upper &amp; lower class of an essay.</td>
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</table>

Skills to be Learned
- Reading for content, speed
- Writing-organization
- Listening-notetaking
- Standards in dress, politics

1. Student-Centered in class activity
   A. Classroom
   1. Read novels pertaining to topics being discussed.
   2. Mock trial in which one or more students might be held & accused of some type of fundamental "heresy". e.g. The family is a worthless unit or the family is a very worthless institution.
   3. 2 or 3 students do an opinion poll on some unsettling idea & then report to class.
   4. Debate on "Whither mass society?"
   5. Theme assignment - topic "How close are we to 1984"
   6. Panel on "Creative Use of Leisure Time."
such as facilitating transportation, conditions, population growth, Discipline Area Language Arts

Problem Orientation Leisure Time Grade 12

Students will use their reading skills to identify, state, and evaluate the content, speed, and organization as they think of the social changes in land use and population density.

SUGGESTED LEARNING EXPERIENCES

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
<td>A. Outside classroom</td>
</tr>
<tr>
<td>A. Classroom</td>
<td>1. Students could interview various people by asking them specific questions such as:</td>
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<tr>
<td>1. Read novels pertaining to topics being discussed.</td>
<td>a. Do you feel increased pressures in your life to conform? If so, why?</td>
</tr>
<tr>
<td>2. Mock trial in which one or more students might be held &amp; accused of some type of fundamental &quot;heresy&quot;, e.g. The family is a worthless unit or the family is a very worthwhile institution.</td>
<td>b. Do you feel people are prepared (formally or otherwise) to use increased leisure time creatively?</td>
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<tr>
<td>3. 2 or 3 students do an opinion poll on some unsettling idea &amp; then report to class.</td>
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<tr>
<td>4. Debate on &quot;Whither mass society?&quot;</td>
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<tr>
<td>5. Theme assignment - topic: &quot;How close are we to 1984?&quot;</td>
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<tr>
<td>6. Panel on &quot;Creative Use of Leisure Time.&quot;</td>
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<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggestions</td>
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<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>1984, George Orwell</td>
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<td>Brave New World by Huxley</td>
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<td>Walden II, B. F. Skinner</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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<tr>
<td>Collages showing leisure time</td>
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<td>activities. Some emphasis might</td>
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<td>be put on &quot;quality&quot; of activities.</td>
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<td><strong>Film:</strong></td>
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<td>1984</td>
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<td><strong>Community:</strong></td>
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<td>Outside speakers:</td>
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<td>Minister might talk on the</td>
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<td>church as an establishment tool.</td>
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<td>Leader in industry could speak on</td>
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<td>shortened work week, attendant</td>
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<td>problems</td>
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<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
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The student tool the student tool speak on attendent
**Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.**

### BEHAVIORAL OBJECTIVES

| Cognitive: | Students can work on their reading skills analysis of social factors involved, can look at their writing techniques & work at verbalizing their social patterns' influences on people's lives. |
| Affective: | Students should become aware that various sociological factors have influenced others & will influence their lives. Students might be given a choice of essay topics to write on. |

### Skills to be Learned
- Reading
- Writing
- Notetaking
- Organizing material
- Listening

### SUGGESTED LEAD

1. **Student-Centered in class activity**
   - Read one or more novels noted in publications. Entire class could read or work or class could be divided into groups responsible for discussing each novel.
   - a. Theme on topic such as slavery, physical or intellectual.
   - b. Have a panel or debate theme of the novel.
   - 2. Dramatization of given scenes from novel e.g. death scene in *Grapes of Wrath*, or opening scene replete with sleepy husband and wife in bathroom in *Babbitt.*
Natural, economic, social, and cultural factors determine status values and attitudes in his environment.

**Behavioral Objectives**

- Students can improve their reading skills by considering social factors that influence their lives. They can look at their own techniques and work on understanding the social influences on their lives.

- Students should understand that various social factors have affected others' lives and will shape their lives. They might be given essay topics to be learned.

**Suggested Learning Experiences**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
</tr>
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<tbody>
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<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggested Learning</td>
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<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>The Grapes of Wrath by John</td>
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<td>Steinbeck.</td>
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<td>The Bear by Wm. Faulkner.</td>
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<td>Main Street and Babbitt by Sinclair Lewis.</td>
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<td><strong>Audio-Visual:</strong></td>
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<td>Film - The Grapes of Wrath</td>
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<td>Collage - of people who make up</td>
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<td>all our Main Streets; of how</td>
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<td>the &quot;curse&quot; of slavery affects</td>
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<td>this land's culture (North &amp;</td>
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<td>South) today.</td>
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<td><strong>Community:</strong></td>
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<td>Chamber of Commerce speaker (on</td>
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<td>some such &quot;service-oriented&quot;</td>
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<td>activity to espouse the causes</td>
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<td>of Main Street, U.S.A.</td>
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<td>Speaker who might talk on the</td>
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<td>evils of finance capitalism.</td>
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</table>
C 2. Man has the ability to manage, 

O N manipulate, and change his

C E environment.

<table>
<thead>
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<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARN</th>
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<tbody>
<tr>
<td>Cognitive: Given the position papers the student is to declare himself for either position A or B. Based on his research of his stand or position, the student is to defend his stand verbally &amp;/or in writing to other students in the class. Affective: Students should be able, through listening to others &amp; through diligent research, to realize that the quality of his environment is something in which he must involve himself. The students' notes taken during discussion could be collected &amp; evaluated by the instructor.</td>
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</table>

Skills to be Learned
- Literary analysis
- Researching an issue
- Defending a position, verbally or in writing
- Note taking

I. Student-Centered in class activity
A. Classroom
1. Two brief papers are presented by instructor Paper A - takes position that to solve technology dilemma is to carry out further technological development. e.g. Buchmuller's "Design Strategy" approach. Paper B - position of anti-techno individuals or groups. Cummings poems or Reich "The Greening of America"
2. Students are asked to a stand for position A Students should research their stand. (The number of days used for research optional.)
3. Students are either to debate (formally or informally) or to write their position essay form.
the ability to manage,

and change his

Discipline Area  Language Arts

Subject  English

Problem Orientation  Land Use  Grade  12

I. Student-Centered in class activity
   A. Classroom

1. Two brief papers are presented by instructor.
   Paper A - takes position that to solve technological dilemma is to carry out further technological development. e.g. Buchminster Fuller's "Design Strategy" approach. Paper B - present position of anti-technological individuals or groups. e.g. Cummings poems or Reich's "The Greening of America".

2. Students are asked to take a stand for position A or B. Students should research their stand. (The number of days used for research is optional.)

3. Students are either to debate (formally or informally) or to write their positions in essay form.

II. Outside Resource and Community Activities
   A. Invite a factory owner, conservation agent or a person from DNR to give a talk to class.
Given the


**SUGGESTED LEARNING EXPERIENCES**

<table>
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<td>3. Students are either to debate (formally or informally) or to write their positions in essay form.</td>
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<td></td>
</tr>
<tr>
<td><em>Utopia or Oblivion</em>, Buchminster Fuller</td>
<td></td>
</tr>
<tr>
<td><em>Progress is a Comfortable Disease,</em> other poems by Cummings</td>
<td></td>
</tr>
<tr>
<td><em>The Greening of America</em>, C. Reich</td>
<td></td>
</tr>
<tr>
<td><em>Those Good New Days</em>, G. Seaborg, <em>Saturday Review</em>, March 6, 1971, p. 52</td>
<td></td>
</tr>
</tbody>
</table>

### Audio-Visual:

- *Magazines & news pictures*
- *Films (available from I.C.E. office)*
  - "Later...Perhaps"
  - "The Gifts"

### Community:

- *EIR*
- Factory owner
- Conservationist
C 10. Short-term economic gains may produce long-term environmental losses.

<table>
<thead>
<tr>
<th>Discipline: Area</th>
<th>Subject</th>
<th>Problem Orientation</th>
</tr>
</thead>
</table>

**BEHAVIORAL OBJECTIVES**

- **Cognitive**: Small groups' work should aid students in developing tools of discussion, listening, note taking, and analyzing.

- **Affective**: Students should become more aware of the effects (both good & bad) of our using our environment for economic gain by taking an active part in a symposium discussion centered around the biologic, social, economic & ethical views of environmental losses.

**Skills to be Learned**

- Listening
- Note taking
- Analyzing

**SUGGESTED LEA**

I. Student-Centered in class activity

A. Classroom

1. Class could be divided into small groups, each group to deal with one basic reading of the mentioned.

   a. Group 1 - the biologic view. In dramatization, use of collage, speakers, this group could base its work on *Our Plundered Planet*.

   b. Groups 2 & 3 - the two groups could, through dramatization, panel of speakers, deal with effects of human greed (short-sightedness) and social & economic problems. Group 2 could use *The Octopus & Group Doe The Jungle*.

   c. Group 4 - probably if held till last, particularly because of Walden's more optimistic tone (in relation used by the first three). This group could use...
ecological gains may be a long-term environmental issue.

**Discipline/Area** Language Arts

**Subject** English

**Problem Orientation** Land Use

**Grade** 12

---

**OBJECTIVES**

- All groups' students should be aware of the environmental gains by their involvement in class activities related to the biologic, ethical, social & economic problems learned.

---

**SUGGESTED LEARNING EXPERIENCES**

I. Student-Centered in class activity

A. Classroom

1. Class could be divided into small groups, each group to deal with one basic reading of the 4 mentioned.

   a. **Group 1** - the biologic view. In dramatization use of collages, panels, speakers, this group could base its work on Our Plundered Planet.

   b. **Groups 2 & 3** - these two groups could, thru dramatization, panels, speakers, deal with the effects of human greed (short-sightedness) on individuals (& groups)

   c. **Social & Economic problems. Group 2 use The Octopus & Group 3 use The Jungle.

   d. **Group 4** - probably best if held till last, particularly because of Walden's more optimistic tone (in relation to texts used by the first 3 groups).

This group could use (cont.)
### Resource and Reference Materials

<table>
<thead>
<tr>
<th>Publications:</th>
<th>Continued and Additional</th>
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</thead>
<tbody>
<tr>
<td>Walden, Thoreau</td>
<td>I. (cont.)</td>
</tr>
<tr>
<td>Our Plundered Planet, F. Osborn</td>
<td>selections from Walden</td>
</tr>
<tr>
<td>1948, Little, Brown &amp; Co.</td>
<td>learns to live within</td>
</tr>
<tr>
<td>The Octopus, F. Norris</td>
<td>collages, panels and</td>
</tr>
<tr>
<td>The Jungle, U. Sinclair</td>
<td></td>
</tr>
</tbody>
</table>

### Audio-Visual:
Students can make collages, slides; films on our meat packing industry (& others) are available

### Community:
Speakers
- DNR
- Local conservationist's group
- Paper mill manufacturer
- Sociologist
<table>
<thead>
<tr>
<th>Reference Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beaux</td>
<td>I. (cont.) selections from Walden to show what happens when man learns to live within the structure of nature. Use collages, panels and readings.</td>
</tr>
<tr>
<td>Planet, F. Osborn</td>
<td>Brown &amp; Co.</td>
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<tr>
<td>Sinclair</td>
<td>F. Norris</td>
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<td>Brown &amp; Co.</td>
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<td>Sinclair</td>
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<td></td>
<td>make collages, focus on our meat industry (&amp; others)</td>
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<td></td>
<td>Conservationist's group</td>
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<td></td>
<td>manufacturer</td>
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</tbody>
</table>
### BEHAVIORAL OBJECTIVES

#### Cognitive:
Students will work on their reading skills: seeing characterization, recognizing themes, main ideas. Students can work on their writing, specifically, they might try a descriptive passage (or text) in which they try to show their reader a lovely setting in nature, or a desolate industrial area.

#### Affective:
Students should see the strong relationships between individual's actions and our emotional-psychic and physical environment. Specifically, students might write a number of short papers in which they can portray their own attitudes toward both psychic and/or physical environmental change.

### SUGGESTED LEARNING ACTIVITY

I. Student-Centered in class activity
   A. Panels - on various books.
   B. A symposium - in which the participants try to establish what (if any) relationships exist between the inner environment (psychic) and the exterior (physical) environment.
   C. Readings followed by films.

### Skills to be Learned
- Close reading
- Writing with careful structure
OBJECTIVES

Students will develop reading skills: discrimination, analysis, main ideas, main themes, main points. They can work on descriptive writing (a descriptive essay) in which they discuss the inner setting in isolation. Students should be able to discuss the relationships among the individual's actions, thoughts, and environment. Students might read short stories or novels, they can discuss their own attitudes, and the role of the environment.

Problem Orientation: Aesthetic

Grade: 12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Panels - on various books.
   B. A symposium - in which the participants try to establish what (if any) relationships exist between the inner environment (psychic) and the exterior (physical) environment.
   C. Readings followed by films.

II. Outside Resource and Community Activities
   A. Outside speakers - an artist, a politician could sit on panels with students.
Resource and Reference Materials

Publications:
- *The Picture of Dorian Gray*
  Oscar Wilde
  Dell, Signet
- *All the King's Men*
  Robert P. Warren
- *Population Bomb*
  Paul Erlich
- The "Legend Lake" controversy
  radio, newspaper editorials
- "Under the Lion's Paw"
  (and other stories)
  Hamlin Garland
- *The Greening of America*
  C. Rice

Audio-Visual:
- Film: *All the King's Men*
- Film: *The Picture of Dorian Gray*

Community:
- Speakers from D.N.R., political parties (representatives)
- Demonstration by local artist (commercial) of individuals' reactions to changed psychic or physical environment.
<table>
<thead>
<tr>
<th>Critical Materials</th>
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</thead>
<tbody>
<tr>
<td>Continued and Additional Suggested Learning Experiences</td>
</tr>
<tr>
<td>Gray</td>
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<tr>
<td>Oversy</td>
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<tr>
<td>Materials</td>
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</table>
12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The student will voice his own philosophy on the question of man's relationship to the earth - Is man owner or steward?  
**Affective:** Students should become more aware of others & their own attitudes toward fundamental ecological issues. These new born attitudes toward stewardship, should be evaluated by having a group of 3 or 4 students work out a questionnaire with the aim of measuring the class's attitudes.

**Skills to be Learned**
- Reading difficult material
- Analysis of parts & whole
- Verbal &/or written presentation of ones individual "position" on a fundamental issue

**SUGGESTED LEARNED**

**I. Student-Centered in class activity**

**A. Classroom**

1. Read _The Bear_ by Wm. Faulkner, 5 parts.
2. Analyze parts 1, 2, 3, & emphasize on themes of "initiation into manhood" & "stewardship of land".
3. Critical reading of part 4 with emphasis on mixed up value systems, rape of land vs. urge to use land wisely.
4. Each student should either:
   a. Get on a panel which will discuss one of the basic themes in the book.
   b. Present a paper on some issue as McCaslin's view of the land.
   c. Give a talk on some issue such as, "The changing view of the land from stewardship (Book 1, 2, 3) to greed (Book part 5)."
5. Work out a questionnaire the aim of measuring the class's attitudes and then have a class discussion.
Discipline Area | Language Arts
---|---
Subject | English
Problem Orientation | Stewardship
Grade | 12

### SUGGESTED LEARNING EXPERIENCES

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
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<tr>
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<td></td>
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<tr>
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| 5. Work out a questionnaire with the aim of measuring the class's attitudes and then have a class discussion.

---

Student will develop a philosophy on earth stewardship. Student should develop a philosophy toward stewardship, by reading Earth. The aim: class's material & whole activity on "initiation into manhood" on prudent use

---

Material
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
</tr>
<tr>
<td>Faulkner edited by Malcolm Cowley, Viking pub., (Fine introduction)</td>
<td></td>
</tr>
<tr>
<td>Six Great Modern Short Novels, Dell pub.</td>
<td></td>
</tr>
</tbody>
</table>

**Audio-Visual:**
Students could make slides, collages showing our use or misuse of our land
The Gifts, U.S. Dept. of Interior
Federal Water Quality Association
Office of Public Instruction

**Community:**
Speaker from DNR
Local farmer
Interested citizen
Conservationis group
(All can give talks on use of land)
Malcolm Cowley, introduction)

Short Novels,

slides, collages
misuse of our

C. of Interior
National Association
Instruction

Promotion use of land)
I. Behavioral Objectives

A. Cognitive:

B. Affective:

II. Skills Developed

III. Suggested Learning Experiences

A. In-Class:

B. Outside & Community Activities:

IV. Suggested Resource & Reference Materials

(Reproduce or duplicate as needed.)

In commenting on each episode used in your class, you may wish to make comments - negative and positive. Let us have your suggestions. (specific Suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

on each episode used in your class, you may wish to duplicate this suggested feel free to adapt it and add more pages. Let us know all your critiques andive and positive.

Objectives

Learning Experiences

Community Activities:

source & Reference Materials

suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

Each episode used in your class, you may wish to duplicate this suggested free to adapt it and add more pages. Let us know all your critiques and positive.

Objectives

Overview

Learning Experiences

Community Activities

Source & Reference Materials

Questions & comments)
A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA: Language Arts    Grade: 2

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin  54301
(414) 432-4338

Robert W
Robert K
George H
PROGRAM FOR ENVIRONMENTAL EDUCATION

Rage Arts Grade 2

IL E.S.E.A.

A's 3-8-9

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist
PREFACE

If you wish to excite students about their environment, help is of over a hundred teachers, year long meetings, a summer workshop, ecologists, this guide means realistic, developed aid for you. Please which have directed teachers in writing and editing this guide.
1. This guide is supplementary in nature and the episodes are desires--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know your students, adapt, adopt, or use. By design, the range of suggestions is even wider. Many episodes are self-contained others can be changed in part or developed more keenly over a few possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learning explain. The reasons are simple. No guide has all the answers and unless viewed in the context of your classroom situation. Thus, give it a tripe reading, check over the resources listed, make prime your students, and seek help. The Project personnel and t acknowledge page stand ready to aid your efforts. Feel free to
4. The Project Resource Materials Center serves all CESA 3, 8, and private. We will send available materials pre-paid. Call for an visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school library Center materials. Please offer suggestions, comments, or advice service may grow. Let’s help each other.
6. Involve yourself with the guide by reacting to it with scratch suggestions on the episode pages or use the attached evaluation collected in late May next year and will be used in our revisions. reactions and suggestions--negative and positive. Please note that in the episodes may refer to specific, local community resources cases, individual school districts and teachers will have to ad constitute. A list of terms pertinent to the episodes is below.
7. Ecologists and other experts have simplified the issue--survival Creation’s beauty and complexity--often noted as the work of a and human energy to save. A year’s work by a hundred of your gesturing. Without you, their work will crumble, and so might we let us live to think, feel, and act in harmony with our world.

I. Cognitive means a measurable mental skill, ability, or process.
2. Affective refers to student attitudes, values, and feelings.
3. APWI means Acceptable Performance Will Include (labels a cog
4. EPA - Environmental Problem Area
PREFACE

The students about their environment, help is ready. Thanks to the efforts of teachers, year long meetings, a summer workshop, university consultants and others, realistic, developed aid for you. Please note the following ideas in writing and editing this guide.

Elementary in nature and the episodes are designed at appropriate instant-existing, logical course content.

The offers suggestions. Since you know your students best, you decide what use. By design, the range of suggestions is wide; your chances for experience are even wider. Many episodes are self-contained, others open-ended, still used in part or developed more keenly over a few weeks. These built-in you to explore.

You try the episodes and suggested learning experiences but please are simple. No guide has all the answers and no curriculum will work the context of your classroom situation. Thus, before trying an episode, reading, check over the resources listed, make mental and actual notes, set, and seek help. The Project personnel and teachers listed on the stand ready to aid your efforts. Feel free to ask their help in pre-planning.

The Materials Center serves all CESA 3, 8, and 9 area schools public and end available materials pre-paid. Call for any help, materials, or to 338.

Project ICE Bibliography in your school library for available Resource. Please offer suggestions, comments, or advice at any time so that this Let's help each other.

With the guide by reacting to it with scratch ideas, notes, and extended episode pages or use the attached evaluation format, which will be collected next year and will be used in our revisions. We sincerely want your estions negative and positive. Please note that some resources listed refer to specific, local community resources or conditions. In such school districts and teachers will have to adopt local or available sub-terms pertinent to the episodes is below.

er experts have simplified the issue survival yours, mine, our students, and complexity often noted as the work of a genius will take our genius to save. A year's work by a hundred of your fellow teachers is a saving ou, their work will crumble, and so might we all literally. Instead, nk, feel, and act in harmony with our world.

Editorial Board

a measurable mental skill, ability, or process based on factual data. s to student attitudes, values, and feelings.
table Performance Will Include (labels a cognitive or mental performance.)
ental Problem Area
ACKNOWLEDGEMENTS: The following teachers and consultants participated in the Supplementary Environmental Education Program:

CESA #3
- Eugene Anderson, Peshtigo
- Laura Berken, Crandon Falls
- Willard Collins, Crivitz
- John Cowling, Niagara
- Nicholas Dal Santo, Pembine
- Robert Dickinson, Crandon
- Ann Fuhrmann, Marinette
- Lillian Goddard, Coleman
- William Haroer, Lena
- Robert Herz, St. James (L)
- Ester Kaatz, Wausaukee
- Michael Kersten, Suring
- Douglas Koch, Cath. Central
- Donald Marsh, Bonduel
- David Miskulin, Goodman
- Don Olsen, Shawano
- Elmer Schabo, Niagara
- Marion Wagner, Gillett
- Ruth Ward, Crivitz
- George Kreiling, Marinette
- Marg. McCambridge, White Lake
- Virginia Pomusl, White Lake
- Gailen Braun, Lena
- Kay DePuydt, Gillett
- Louise Beuter, Gillett

CESA #8
- Lowell Baltz, Weyauwega
- William Behring, Lourdes
- David Bell, Neenah
- Marie Below, Clintonville
- William Bohne, Kimberly
- Bob Church, Little Chute
- Ronald Conradt, Shiocton
- Lee Halberg, Appleton
- Ronald Hammond, Hortonville
- Jerome Hennes, Little Chute
- Barbara Huth, Menasha
- Darrell Johnson, Hortonville
- Bernadyne King, Neenah
- Harold Lindhorst, St. Martin (L)
- John Little, Winneconne
- Gordon Rohloff, Cshkosh
- William Schaff, St. Joseph
- Doris Stehr, Mt. Calvary (L)
- Carolyn Shills, New London
- Sister Dorothy, Xavier
- Clarence Trentlage, Freedom
- Mike Hawkins, Xavier
- Beth Hawkins, Xavier
- Ed Patschke, Menasha
- Connie Peterson, St. Martin (L)
- Dallas Werner, Kaukauna
- Ron Schreier, Cmro

Consultant Staff
- Frank Tate, UW-Marinette
- Charles Richards, UW-Marinette
- Ednajean Purcell, CSU
- David West, Lawrence U.
The following teachers and consultants participated in the development of the Supplementary Environmental Education Guide:

**CESA #8**
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- Beth Hawkins, Xavier
- Ed Patschke, Menasha
- Connie Peterson, St. Martin (L)
- Dallas Werner, Kaukauna
- Ron Schreier, Cmro

**CESA #9**
- Joan Alioto, Denmark
- Angela Anthony, Gibraltar
- Harold Baeten, St. Norbert
- Anthony Balistreri, Howard-Suamico
- Lillian Berges, Seymour
- Carmella Blecha, Green Bay
- Joan Charnetski, Sevastopol
- Billie Feichtinger, Green Bay
- Rev. B. Frigo, Abbot Pennings
- Robert Haen, Luxemburg-Casco
- Paul Kane, Ashwaubenon
- Roy Lukes, Gibraltar
- Sister Anna, St. Philips
- Jim Maki, Sturgeon Bay
- Joyce Mateju, Algoma
- Richard Minten, W. DePere
- Gloria Morgan, Linsmeier Private
- George Pederson, Southern Door
- Alan Schuh, Pulaski
- Thomas Weyers, Cathedral
- Ruth Windmuller, Green Bay
- James Wiza, DePere
- John Torgerson, Kewaunee
- Benjamin Roloff, Howard-Suamico
- Greg Schmitt, Cathedral
- John DeWan, Green Bay
- Emmajean Harmann, Sevastopol
- Ray Gantenbein, Green Bay
- David Bartz, Sturgeon Bay
- John Hussey, Green Bay
- Sister Barbara, St. Bernard

**CESA 1**
- Ednajean Purcell, CSU
- Marinette David West, Lawrence U.

**CESA 2**
- Robert Cook, UWGB
- Dennis Bryan, UWGB
C 1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

BEHAVIORAL OBJECTIVES

Cognitive: The class will cut their sunflower into sections as to roots, blossom, leaves, & stem. Mix these up. Put back in order and label parts.

Affective: The student advocates that this is a concrete example of the use of the sun's energy.

Skills to be Learned

- Construction of sections of a plant
- Reconstruct plant in correct order
- Critical thinking

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Discussion of a sunflower using a picture or the flower.
2. Construct sunflower (blossom, roots, leaves, stem)
3. How do they think sunflower got its name.
4. Tell what the sun's job was in growing this plant.
5. Tell what would have happened if it had been without sun.
6. Tell values of sunflower (bird food, aesthetic, snacks)
the sun, the basic source

This is converted through Discipline Area Language Arts

thesis into a form all Subject Language Arts

can use for life processes. Problem Orientation Energy use Grade 2

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
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<td>Resource and Reference Materials</td>
<td>Continued and Additional Studies</td>
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<tr>
<td>Publications:</td>
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<tr>
<td>Audio-Visual:</td>
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<tr>
<td>Sunflower or a picture</td>
<td></td>
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<td>of one.</td>
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</tbody>
</table>

Community:
Continued and Additional Suggested Learning Experiences
2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The child will explain the difference between frogs and toads. The child will orally describe the place where we find frog eggs. Affective: The child will choose which they would rather be—a frog or toad. Ex. - Frog-I like to swim. Toad- I like insects.

**Skills to be Learned**
- Record and sketch changes in egg appearances
- Make booklets about frogs
- Writing an informational article about frogs
- Show & read pictures & stories to the kindergarten
- Find rhyming words

**SUGGESTED LEARNING EX: I.**

Student-Centered in class activity
A. Read:
   1. Frog and Toad are Friends
   2. The Letter
   3. Oily's Polliwogs
B. Use above to discuss "life cycle".
C. Discuss frog & toad activities:
   2. How they swim.
D. Discuss how frogs & toads change.
E. How they fit into balance of nature.
   1. Eat bugs, etc.
   2. Food for humans, and also other small animals.
F. Identify:
   1. Describe changes & relate information they have learned to the kindergarten.
**SUGGESTED LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Read:</td>
<td>A. The children will go to a nearby pond, bait store, or hatchery to obtain frog &amp; toad eggs &amp; observe them each day for changes using magnifying glass.</td>
</tr>
<tr>
<td>1. Frog and Toad are Friends</td>
<td></td>
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<tr>
<td>2. The Letter</td>
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<td></td>
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<tr>
<td>1. Describe changes &amp; relate information they have learned to the kindergarten.</td>
<td></td>
</tr>
</tbody>
</table>
### Resource and Reference Materials

**Publications:**

**Books:**
- Frog and Toad are Friends
- The Letter
- Olly's Polliwog
- All by Arnold Lobel

**Audio-Visual:**
- Frog eggs in glass jar
- Magnifying glass
- Glass jar for polliwogs
- Folk song, *Froggie Went A Courtin'*

**Community:**
2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Children will observe actual rabbits & realize need for being very quiet in observing. Children will use library for stories both factual and fanciful. Children may pretend to be a rabbit (Where will he look for food, shelter, protection from enemies.)

**Affective:** Each child evaluates for himself the good and bad traits of a rabbit.

**Skills to be Learned**

Evaluate ways in which the situation can be controlled

a. Traps
b. Provide other source of food

Protection of trees & shrubs

a. By repellent
b. Covering trunks & branches

**SUGGESTED LEARNING ACTIVITY**

I. Student-Centered in class

1. Poem "The Rabbit"
2. Pretend that child is a rabbit:
   a. Where build his home?
   b. What are his natural enemies?
   1. Man - hunting
   2. Dogs - hunting
   3. Foxes & hawks
   c. How can rabbit protect himself?
      1. Color blends
      2. Natural protection by snow
3. Panel discussion:
   a. Rabbits are nuisance and it is all right to set traps & hunt them.
   b. Rabbits enrich our lives & the damage done to trees and shrubs could have been eliminated.
   1. Class will decide which presentation is best presented - pro and con.
gan1sms interacmong heir environment, 

Discipline Area Language Arts
Subject Language Arts
Problem Orientation Ecosystem Grade 2

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
1. Poem "The Rabbit"
2. Pretend that child is a rabbit:
   a. Where build his home?
   b. What are his natural enemies?
   1. Man - hunting
   2. Dogs - hunting
   3. Foxes & hawks
   c. How can rabbit protect himself?
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   b. Rabbits enrich our lives & the damage done to trees and shrubs could have been eliminated.
   1. Class will decide which presentation is best presented - pro and con.

II. Outside Resource and Community Activities

OBJECTIVES

Children will learn the traits of rabbits & being very adorableness. Chil-
dren for the animal and in may may may may 

The child

Self

traits

The child

Self

traits

The child

Self

traits

The child

Self

traits

The child

Self

traits

The child

Self

traits

The child

Self

traits

The child

Self

traits
Resource and Reference Materials

**Publications:**
- *Time for Poetry - A Teacher's Anthology* by May Hill Arbuthnot.
- "The Rabbit" by Elizabeth Madox Roberts, p. 96.

**Audio-Visual:**
- The Rabbit.

**Community:**

---

Continued and Additional Suggestion:

**The Rabbit**

When they said the time to hid
I hid back under a thick gra

And while I was still for the
A little gray thing came out

He hopped his way through the
And sat down close by a cabb

He sat down close where I co
And his big still eyes looke

His big eyes bursting out of
And I looked back very hard

From "Under the Tree"

Elizabeth Madox
The Rabbit

When they said the time to hide was mine,
I hid back under a thick grapevine.

And while I was still for the time to pass,
A little gray thing came out of the grass.

He hopped his way through the melon bed,
And sat down close by a cabbage head.

He sat down close where I could see,
And his big still eyes looked hard at me.

His big eyes bursting out of the rim,
And I looked back very hard at him.

From "Under the Tree" by

Elizabeth Madox Roberts
C 2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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</thead>
</table>
| Cognitive: Children will listen for ways to identify the presence of woodpeckers. Children will learn to identify kinds of woodpeckers and observe where they build nests. Affective: Old, rotten trees, posts, etc. provide food for woodpeckers and provide places for nests; when we destroy these natural situations, we are destroying their environment. How would we feel if our home was destroyed. | I. Student-Centered in class activity  
1. Poem: "The Woodpecker"  
2. Collect pictures - mural with environment added.  
3. Draw pictures & write story about woodpecker observed.  
4. Discussion: Are woodpeckers necessary? What happens when all rotten & decayed positions of trees are removed? Nesting places gone Food supply limited Are artificial methods possible to attract woodpeckers? |

Skills to be Learned
Listening for tapping Use of field glasses for identification Recognize local - a. Red-headed b. Hairy & downy Compare & contrast other similar habits
organisms interact among their environment,

<table>
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<tr>
<th>Subject</th>
<th>Language Arts</th>
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<tbody>
<tr>
<td>Problem Orientation</td>
<td>Ecosystem</td>
</tr>
<tr>
<td>Grade</td>
<td>2</td>
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</tbody>
</table>

**OBJECTIVES**

- Children will learn to identify woodpeckers.
- Children will learn to identify woodpeckers and what they build.
- Children will build rotten wood, provide insects, and build or mount nests;
- Children will build the environment and feel these changes.

**SUGGESTED LEARNING EXPERIENCES**

**I. Student-Centered In Class Activity**

1. Poem: "The Woodpecker"
2. Collect pictures - mural with environment added.
3. Draw pictures & write story about woodpecker observed.
4. Discussion:
   - Are woodpeckers necessary?
   - What happens when all rotten & decayed positions of trees are removed?
   - Nesting places gone
   - Food supply limited
   - Are artificial methods possible to attract woodpeckers?

**II. Outside Resource and Community Activities**
Resource and Reference Materials

Publications:
Time for Poetry - A Teacher's Anthology, "The Woodpecker," p. 84 by Elizabeth Madox Roberts.

Audio-Visual:
Taped woodpecker sounds
Stuffed specimens from local museum, etc.

Continued and Additional Suggested Literature

The Woodpecker

The woodpecker pecked out a little hole
And made him a house in the telephone pole!

One day when I watched he peeled out
And he had on a hood and a collar.

When the streams of rain pour out
And the sparkles of lightning go off

And the big, big wheels of thunder
He can snuggle back in the telephone

From "Under the Trees"

Elizabeth Madox Roberts

75
The Woodpecker

The woodpecker pecked out a little round hole
And made him a house in the telephone pole.

One day when I watched he poked out his head,
And he had on a hood and a collar of red.

When the streams of rain pour out of the sky,
And the sparkles of lightning go flashing by,

And the big, big wheels of thunder roll,
He can snuggle back in the telephone pole.

From "Under the Tree" by

Elizabeth Madox Roberts
Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive: Student will, using 2 cans, compare space used by used cans. Observe flattened &amp; unflattened cans and give oral report on observation. Affective: Student will observe that folded cans will take up less space; out of clutter, perhaps, cans can be recycled, thus, reusing metals.</td>
<td>I. Student-Centered in class activity 1.</td>
</tr>
</tbody>
</table>

Skills to be Learned
- Observation and comparison
- Chart for comparison
- Show space used by folded & unfolded cans.
- Speech skill/reporting
Environmental factors are limiting years of organisms living. The influence, thus, each has a carrying capacity.

<table>
<thead>
<tr>
<th>ALL OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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</thead>
<tbody>
<tr>
<td>I. Student will, compare space cans. Observe flattened oral report.</td>
<td>II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td>Student will folded cans less space; perhaps, recycled, thus,</td>
<td>1. Gather opened, used cans. Sort, Remove paper labeling, wash out can, remove remaining end, &amp; flatten can.</td>
</tr>
<tr>
<td>learned and compa-</td>
<td>2. Compare amount of space used by original collection of cans to amount used by flattened cans.</td>
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<tr>
<td>3. If possible, turn in cans for re-use.</td>
<td>4. Chart and compare space used.</td>
</tr>
<tr>
<td>4. Chart and compare space used.</td>
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</tr>
<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggested Learning</td>
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<td>----------------------------------</td>
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<td><strong>Publications:</strong></td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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<td><strong>Community:</strong></td>
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<tr>
<td>Sanitary Dept. Engineer</td>
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<tr>
<td>Companies - Local &amp; national</td>
<td></td>
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<tr>
<td>using this procedure - their</td>
<td></td>
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<tr>
<td>pamphlets, booklets, may be</td>
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<tr>
<td>available. Contact Public</td>
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<tr>
<td>Relations Dept.</td>
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</tr>
<tr>
<td>a. American Can Corp.</td>
<td></td>
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<tr>
<td>b. National Can</td>
<td></td>
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<tr>
<td>c. Continental Can</td>
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</table>
4. An adequate supply of pure water is essential for life.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive:</strong> Children will describe the things found in polluted water using a word list.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td><strong>Affective:</strong> Children feel flustered due to pollution. They will help by attempting to correct the situations.</td>
<td>1. Teacher &amp; children collect pictures of fish - cut out:</td>
</tr>
<tr>
<td></td>
<td>a. healthy fish as fish for dinner</td>
</tr>
<tr>
<td></td>
<td>b. dying fish - pleasant &amp; unpleasant</td>
</tr>
<tr>
<td><strong>Skills to be Learned</strong></td>
<td>2. Put on chart.</td>
</tr>
<tr>
<td>Making distinctions</td>
<td>3. Children give reasons for healthy &amp; unhealthy fish; reasons could be pollution, debris, soap suds, etc.</td>
</tr>
<tr>
<td>Writing a word list</td>
<td>4. Write ideas of the feelings of a fish in one of the two groups.</td>
</tr>
<tr>
<td>Chart making</td>
<td></td>
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</tbody>
</table>
## SUGGESTED LEARNING EXPERIENCES

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
</tr>
</thead>
</table>
| 1. Teacher & children collect pictures of fish - cut out:  
   a. healthy fish as fish for dinner  
   b. dying fish - pleasant & unpleasant  
  2. Put on chart.  
  3. Children give reasons for healthy & unhealthy fish; reasons could be pollution, debris, soap suds, etc.  
  4. Write ideas of the feelings of a fish in one of the two groups. |
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested</th>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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<td><strong>Community:</strong></td>
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</table>
### Continued and Additional Suggested Learning Experiences

<table>
<thead>
<tr>
<th>Date</th>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan 1</td>
<td>Experiment A</td>
<td>Perform experiment A and record results.</td>
</tr>
<tr>
<td>Jan 2</td>
<td>Experiment B</td>
<td>Conduct Experiment B and analyze data.</td>
</tr>
<tr>
<td>Jan 3</td>
<td>Literature Review</td>
<td>Read articles on related topics.</td>
</tr>
<tr>
<td>Jan 4</td>
<td>Case Study Analysis</td>
<td>Analyze case study for insights.</td>
</tr>
<tr>
<td>Jan 5</td>
<td>Group Discussion</td>
<td>Discuss findings in class.</td>
</tr>
</tbody>
</table>

**Note:** Additional activities and learning experiences may be added as needed.
An adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food. Discipline-Area Language Area
Subject Language Area Problem Orientation Clean A

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive:</strong> Children will be able to name 3 pleasant &amp; 3 unpleasant odors.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td><strong>Affective:</strong> The teacher will put words or phrases in pairs, the child will reject the pairs of words which could be harmful by circling the pairs showing non-harmful odors. Ex. - Candy, bananas Gas, smoke Pumpkin pie, gasoline</td>
<td>A. Class 1. Discuss with children why we can smell the hot-lunch. 2. List odors which they like. 3. List odors they dislike. 4. Smell odors such as, smoke, onions, perfume, etc. 5. Discuss how odors can be harmful to us.</td>
</tr>
</tbody>
</table>

Skills to be Learned
- Listing
- Discussing
- Making judgments
A. Class
1. Discuss with children why we can smell the hot-lunch.
2. List odors which they like.
3. List odors they dislike.
4. Smell odors such as, smoke, onions, perfume, etc.
5. Discuss how odors can be harmful to us.

II. Outside Resource and Community Activities
A. Outside activity
1. Children will bring materials from home and community for a smelling party.
2. Bring in pictures of polluted air.
3. Bring in articles to smell, half of the room can bring in nice odors & the others, the bad odors.
Continued and Additional Suggested Learning Experiences
6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** To construct a picture story showing at least 3 environmental resources of the far North or that of our region.

**Affective:** The children will respond to the situation: Eskimos have many days of darkness. Wouldn't it be a good idea to take electric light bulbs, hot plates, and electric heaters there & sell them to the Eskimos?

**Skills to be Learned**

To compare difference in:
- food
- weather
- possessions, etc.

Show a specific idea on a picture

**SUGGESTED LEARNING EXPERIENCE**

I. Student-Centered in class activity

1. Teacher reads a story about Eskimo life.
2. Teacher & children discuss how the life of Eskimos is similar to & different than ours. Include:
   - food
   - possessions
   - natural resources

3. The children will draw conclusions (teacher will write on board) which tell the effects on each group's life because of the quantity of water, snow, trees, growing weather.

4. Divide the class into 2 or more groups & have each group draw a picture showing the natural resources of the area.

5. The children could make charts comparing clothes, food, animals of the two areas.
Language Arts

Problem Orientation Resource Usage Grade 2

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Teacher reads a story about Eskimo life.

2. Teacher & children discuss how the life of Eskimos is similar to & different than ours. Include:
   - food
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   - natural resources

3. The children will draw conclusions (teacher will write on board) which tell the effects on each group's life because of the quantity of water, snow, trees, growing weather.

4. Divide the class into 2 or more groups & have each group draw a picture showing the natural resources of the area.

5. The children could make charts comparing clothes, food, animals of the two areas.

II. Outside Resource and Community Activities

- Visit to Eskimo settlement
- Visit to local Eskimo cultural museum
- Interview with a local Eskimo
- Watch Eskimo life video
- Participate in an Eskimo cultural workshop

Note: These activities are not equally distributed on the earth or over the geographic area. In the table above, the Discipline Area is Language Arts, and the Subject is Language Arts. The Problem Orientation is Resource Usage, and the Grade is 2.

Community Activities

- Student: Teacher reads a story about Eskimo life.
- Teacher & children discuss how the life of Eskimos is similar to & different than ours. Include:
  - food
  - possessions
  - natural resources
- Students draw conclusions (teacher will write on board) which tell the effects on each group's life because of the quantity of water, snow, trees, growing weather.
- Students divide the class into 2 or more groups & have each group draw a picture showing the natural resources of the area.
- Students could make charts comparing clothes, food, animals of the two areas.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested Learning Activities</th>
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</thead>
<tbody>
<tr>
<td>Audio-Visual:</td>
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<td>Community:</td>
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</table>

**Audio-Visual:**

**Community:**
<table>
<thead>
<tr>
<th>Continued and Additional Suggested Learning Experiences</th>
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</thead>
</table>

...
C 7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

BEHAVIORAL OBJECTIVES

Cognitive: A movie will be constructed by the class which shows the sequence of land transportation and how it caused change in land use.

Affective: The teacher will provide a list of modes of transportation to be rated in groups according to the greatest effects on land use.

Example:
- Wagon 3
- Airplanes 3
- Walking 4
- Jets 2
- Railroad 2
- Horses 4
- Jets 1
- Cars 1

Skills to be Learned
- Sequential order
- Listing

SUGGESTED LEARNING

I. Student-Centered in class activity
   A. Classroom
      1. The children will form groups and make a movie showing the sequence of land transportation and changes needed for each.
## Objectives

<table>
<thead>
<tr>
<th></th>
<th>Student-Centered in class activity</th>
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<tbody>
<tr>
<td>I. Classroom</td>
<td></td>
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<tr>
<td>1. The children will form groups &amp; make a movie showing the sequence of land transportation &amp; changes needed for each.</td>
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## Suggested Learning Experiences

<table>
<thead>
<tr>
<th></th>
<th>II. Outside Resource and Community Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Projects</td>
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</tr>
<tr>
<td>1. The children &amp; teacher will go for a walk &amp; note the various ways of land transportation.</td>
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<tr>
<td>2. When they get back to the classroom, a composite list of ways of transportation will be made:</td>
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<tr>
<td>a. Ways he observed on walk</td>
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<td>b. Other ways</td>
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<td>3. Discussion will follow:</td>
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<tr>
<td>a. Modes of travel in sequential order.</td>
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<td>b. What had to be done to our land when each new way was discovered</td>
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<td>c. Why were more ways of transportation needed?</td>
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<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggestions</td>
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<td><strong>Publications:</strong></td>
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</table>
Continued and Additional Suggested Learning Experiences

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<td>Activity 1</td>
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<td>Activity 2</td>
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<td>Activity 3</td>
<td>...</td>
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Note: The table continues on the next page.
Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

| Cognitive: | Student will observe for one day: (taking notes) signs of pollution in the air and in the environment. |
| Affective: | What things do I do that cause pollution? |

**Skills to be Learned**
- Observation of positive and negative factors
- Taking notes of observation posters

**SUGGESTED LEARNING EXPERIENCES**

I. Student-Centered in class activity
1. Make notes to look for following things:
   - A. Air pollution:
     - 1) chimneys
     - 2) cars, trucks
   - B. Scenic pollution
     - 1) garbage
     - 2) junking old cars
   - C. Noise pollution
     - 1) home
     - 2) school
2. Do we need noise? How much can be tolerated?
   - a. small children
   - b. school children
   - c. adults, older brothers and sisters
   - d. parents
   - e. grandparents
3. Discussion - how to cope with each individual's particular problem.

II. Out-of-class activity
Economic, social, and environmental factors determine status and attitudes.

**Subject:** Language Arts

**Problem Orientation:** Pollution

**Grade:** 2

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
<td>II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td>1. Make notes to lock for following things:</td>
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<td>c. Noise pollution</td>
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<td>2) school</td>
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<td>How much can be tolerated?</td>
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<td>e. grandparents</td>
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<td>3. Discussion - how to cope with each individual's particular problem.</td>
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<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggested Libraries</td>
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<tr>
<td>Audio-Visual:</td>
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<td>newspaper &amp; magazine pictures</td>
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<td>(for discussion)</td>
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<td>cameras</td>
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<td>Community:</td>
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<td>Materials</td>
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87
9. Man has the ability to manage, manipulate, and change his environment.

### BEHAVIORAL OBJECTIVES

**Cognitive:** Children will select some specific area to evaluate over a period of time. Each can decide on area to be observed. Seasons can change aspect of environment.

**Affective:** Given a picture to observe, child suggests what he would do to improve site.

### Skills to be Learned

- Watching for specific areas to concentrate on
- Compare area—Earth's scars from road constructions, abandoned cars & machinery covered with snow, spring shows up pollution
- Note taking
- Story writing

### Discipline Area

Subject

Problem Orientation

### SUGGESTED LEA

1. Student-Centered in classroom activity

#### A. Classroom activity

1. Children will decide what area they plan to observe.
2. Each group reports on area of choice.
3. They will also decide at what intervals they will make observations, time of day, morning or night.
4. Aesthetic evaluation
   - a. What is objectionable? Why?
   - b. What is good? Why?
5. Write stories about observations.
   - a. Spelling list of words children suggest to enable them to compose stories
   - b. Compare notes from first observation to last observed and compare.
6. Children may read stories to classmates.
Aesthetic evaluation:
a. What is objectionable? Why?
b. What is good? Why?

5. Write stories about observations.
a. Spelling list of words children suggest to enable them to compose story.
b. Compare notes from first observation to last observed and compare.
   1. Has spelling improved?
   2. Good sentence structure?

6. Children may read stories to classmates.

II. Outside Resource and Community Activities
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
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<td>Photographs - local news</td>
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<td>Magazine pictures of areas</td>
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<td>similar to those observed</td>
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<tr>
<td>Collage or chart design making</td>
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</table>

Community:
### Behavioral Objectives

**Cognitive:** The students will answer four out of five correct answers to "yes" or "no" questions to tell the right ways of "marking-the-place" in a book.

**Affective:** The teacher will watch to see how books are marked and listen to see if children tell each other what to do.

### Skills to be Learned
- Logical thinking
- Proper care of books

### Suggested Learning Experience

1. **Student-Centered in class activity**
   - A. The teacher will say there is one child in the room who is a very good reader, but when library reading time is up, he bends the corner of the page to mark his place in the library book.
   - 1. What would happen if all our class members did this?
   - 2. If the entire school did this?
   - 3. If everyone who went to the library did this?
   - 4. Is this taking care of our library environment?
   - 5. What other ways could we keep our place in a book?
   - 6. Bookmarks will be made.

2. **Out activity**
   - B. The teacher will ask the students to think of other ways to keep their place in a book. They might suggest using a bookmark or a library card.
[Duplicated]

<table>
<thead>
<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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<td>Publications:</td>
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**Audio-Visual:**

**Community:**
Continued and Additional Suggested Learning Experiences
12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

**BEHAVIORAL OBJECTIVES**

| Cognitive: After taking a field trip the child will identify three wild flowers. | I. Student-Centered in class activity |
| Affective: The students will try to preserve wild flowers for other to enjoy. | |

**Skills to be Learned**

Planning field trip -
- Transportation - bus or walk
- Observe flowers - natural setting
- Take notes
- Make sketches
- On return:
  - Find illustrations and note pages.

**SUGGESTED LEARNING EXPERIENCES**

II. Out of class

Comm. Field
1. Collect plants and flowers
2. Class plant and flower lesson
3. Make a chart and label plants
4. In an activity:
   a. Find wild flowers
   b. Take photographs
5. In an activity:
   a. Draw the wild flowers
   b. Write a short story
6. In an activity:
   For Own
Ownership must be re-
wardship and should
no or violate the
of others.

Discipline Area  Language Arts
Subject  Language Arts
Problem Orientation  Land Use  Grade  2

I. Student-Centered in class activity

II. Outside Resource and Community Activities

Field trip:
1. Children will look for place where wild flowers grow.
2. Children will observe area carefully and look specifically for certain flowers.
3. May sketch hastily: leaves, indicate colors, flowers, shade of green, bud, seed.
4. If wild flower is an annual and not protected by law. Flowers may be taken to:
   a. Sketch
   b. Press and preserve
5. If biennial -
   a. Recognize leaves and plants
   b. Learn that it takes two years to produce seeds.
6. If bulbs - may grow from seeds - produce bulb and reproduce in two ways.

For discussion:
Ownership responsibility
<table>
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**Publications:**

**Audio-Visual:**

**Community:**
Continued and Additional Suggested Learning Experiences
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

In commenting on each episode used in your class, you may write in your own format. Please feel free to adapt it and add more pages. Let your own ideas and comments - negative and positive - guide your thinking.

I. Behavioral Objectives
   A. Cognitive:
   
   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:
   
   B. Outside & Community Activities:

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

Depending on each episode used in your class, you may wish to duplicate this suggested form. Feel free to adapt it and add more pages. Let us know all your critiques - negative and positive.

1. Objectives
   Active:

   Passive:

2. Developed

3. Learning Experiences
   Cross:

4. Public & Community Activities:

5. Resource & Reference Materials
   Suggestions & comments)
A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA _Language Arts_ GRADE 3

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin 54301
(414) 432-4338

Robert
George
INSTRUCTION - CURRICULUM - ENVIRONMENT

DOCUMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

LANGUAGE AREA  Language Arts     GRADE  3

under Title III E.S.E.A.

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

Schools in CESA's 3-8-9

54301

2-4338
PREFACE

If you wish to excite students about their environment, help is readily available from over a hundred teachers, year long meetings, a summer workshop, and ecologists. This guide means realistic, development aid for you, which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are designed to plug into existing, logical course content.

2. Each page or episode offers suggestions. Since you know your students, you can adapt, adopt, or use. By design, the range of suggestions is wide and usage are even wider. Many episodes are self-contained; others can be changed in part or developed more keenly over a few possibilities allow you to explore.

3. Now we urge that you try the episodes and suggested learning experiences. The reasons are simple. No guide has all the answers and none unless viewed in the context of your classroom situation. Thus, please give it a triple reading, check over the resources listed, prime your students, and seek help. The Project personnel and teaching acknowledgement page stand ready to aid your efforts. Feel free to ask.

4. The Project Resource Materials Center serves all CESA 3, 2, and 9 private. We will send available materials pre-paid. Call for any visit. Phone 432-4338.

5. Check often the Project ICE Bibliography in your school library for Center materials. Please offer suggestions, comments, or advice--service may grow. Let's help each other.

6. Involve yourself with the guide by reacting to it with scratch ideas and suggestions on the episode pages or use the attached evaluation forms. This will be collected in late May next year and will be used in our revisions. We want your reactions and suggestions--negative and positive. Please note that in the episodes may refer to specific, local community resources or cases, individual school districts and teachers will have to adapt substitutes. A list of terms pertinent to the episodes is below.

7. Ecologists and other experts have simplified the issue--survival--Creation's beauty and complexity--often noted as the work of a genie to save. A year's work by a hundred of your fellow teachers. Without you, their work will crumble, and so might we all. Let us live to think, feel, and act in harmony with our world.

I. Cognitive means a measurable mental skill, ability, or process
2. Affective refers to student attitudes, values, and feelings.
3. AFWI means Acceptable Performance Will Include (labels a cognit
4. EPA - Environmental Problem Area.
PREFACE

students about their environment, help is ready. Thanks to the efforts
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means realistic, developed aid for you. Please note the following ideas
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Materials Center serves all CESA 3, 8, and 9 area schools--public and
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feel, and act in harmony with our world.
Editorial Board

measurable mental skill, ability, or process based on factual data.
to student attitudes, values, and feelings.
ble Performance Will Include (labels a cognitive or mental performance.)
Problem Area.
ACKNOWLEDGEMENTS: The following teachers and consultants participated in the development of the Supplementary Environmental Education Guide.

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John Cowling, Niagara
Nicholas Dal Santo, Pembine
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William Bohne, Kimberly
Bob Church, Little Chute
Ronald Conradt, Shiocton
Lee Halberg, Appleton
Ronald Hammond, Hortonville
Jerome Hennes, Little Chute
Barbara Huth, Menasha
Darrell Johnson, Hortonville
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John Little, Winneconne
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Carolyn Shills, New London
Sister Dorothy, Xavier
Clarence Trentlage, Freedom
Mike Hawkins, Xavier
Beth Hawkins, Xavier
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Carmella Blecha, Green Bay
Joan Charnetski, Sevastopol
Billie Feichtinger, Green Bay
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Benjamin Roloff, Howard-Suamico
Greg Schmitt, Cathedral
John DeWan, Green Bay
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David Bartz, Sturgeon Bay
John Husey, Green Bay
Sister Barbara, St. Bernard

Ednajean Purcell, OSU
Dianette David West, Lawrence U.

Robert Cook, UWGB
Dennis Bryan, UWGB
1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

BEHAVIORAL OBJECTIVES

Cognitive: The student will relate, by means of writing a creative story on what a world would be without a sun.
Affective: Students will realize that without the benefits of the sun's rays, there could be no life on earth. The children will defend the need of the sun in our lives.

Skills to be Learned
Discussing
Writing

I. Student-Centered in class activity
1. The teacher could throw out the question - "What would happen if the sun suddenly disappeared?" Have the children give ideas. (Ex. - How might the earth be different if there were no sun? Would it be dark and lifeless? Would it be cold? Why or why not?)

2. Following the above discussion, write a creative story, "I am living in a world without a sun."
The sun, the basic source

converted through

basis into a form all

use for life pro-

Discipline Area Language Arts

Subject Area Language

Problem Orientation Energy Use Grade 3

I. Student-Centered in class activity

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Have the children give ideas. (Ex. - How might the earth be different if there were no sun? Would it be dark and lifeless? Would it be cold? Why or why not?)

2. Following the above discussion, write a creative story, "I am living in a world without a sun."

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<td>pp. 101-111; Bk. 4 - p. 156-57.</td>
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<td>McMillan Co. by Bernard and</td>
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<td>Lavatelli. pp. 23-26; 63, 68,</td>
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<td>by Schneider. pp. 428, 443,</td>
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<td>447. D.C. Heath Co. 1968</td>
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<td><strong>Community:</strong></td>
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Continued and Additional Suggested Learning Experiences
2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** A demonstration by the children, depicting family living in harmony and out of harmony. They will infer harmony is best.

**Affective:** Children will promote happy family relationships in their lives.

**Skills to be Learned**
- Create an idea
- Work in a group
- Participate in the playlet

**SUGGESTED LEARNING ACTIVITIES**

I. Student-Centered in class activity
   - A. Play SRA record or family story.
   - B. List members of the family living together—mother, father, brother, sister, grandmother, etc.
   - C. Divide class into groups. Each group write a playlet showing:
     1. How the family members work together happily.
     2. What happens when disagreements arise.
   - D. Put on playlets.
organism interact among their environment.

Discipline Area: Language Arts
Subject: Language Arts
Problem Orientation: Ecosystem
Grade: 3

<table>
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<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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| Demonstration, depicting harmony. They are best. The family will learn harmony together. The demonstration will be useful in the playlet. | I. Student-Centered in class activity
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D. Put on playlets. |
| II. Outside Resource and Community Activities |
Audio-Visual:
SRA
Social Studies
Record I
Side I
Filmstrip pertaining to
Family Sharing & Living

Community:
<table>
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C 3. Environmental factors are limiting on the numbers of organisms living within their influence thus, each environment has a carrying capacity.

**BEHAVIORAL OBJECTIVES**

<table>
<thead>
<tr>
<th>Cognitive:</th>
<th>Children will differentiate between a party of a limited number and one where the party became overcrowded through question &amp; answer.</th>
</tr>
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<tbody>
<tr>
<td>Affective:</td>
<td>The children will feel the impact of crowded condition vs. uncrowded conditions.</td>
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</table>

**Skills to be Learned**
- Critical thinking
- Mental creative exercise
- Drawing conclusions

**SUGGESTED LEA**

1. **Student-Centered in class activity**
   1. Teacher creates an imaginary situation:
   - All are invited to a birthday party—unknown to hostess children brought their brothers and sisters.
   2. Questions: Will there be enough room for games, food, prizes, and fun?
   3. Will our chance for a prize be more or less?
   4. What will too many at the party do to our good time.
factors are limiting
organisms living...
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C 4. An adequate supply of pure water is essential for life.

**BEHAVIORAL OBJECTIVES**

- **Cognitive:** Five words which describe pure or impure water will be learned for spelling. Sentences will be written describing pure or impure water.*
- **Affective:** By knowing these descriptive words about water, he will be able to tell why he needs pure water.

**Skills to be Learned**
- Sentence writing
- Spelling
- Choosing descriptive word

* The children will be given word cards describing conditions of water. Each child will classify his words under the heading of pure & impure water.

**SUGGESTED LEARNING ACTIVITY**

I. Student-Centered in class activity

1. The teacher will put the word "water" on the board.
2. The students will list any words which describe water.
3. These words will then be divided into two groups.
   a. Words which describe water which could be pure.
   b. Words which could describe impure water.
4. Sentences can be written using any of the words from above list.
5. Children will choose 5 or more words to learn to spell.
6. Thinking of these words children will discuss the need for all of us to have good, pure water.
Adequate Problem Orientation Water Supply  Grade  3

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2. The students will list any words which describe water.
3. These words will then be divided into two groups.
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</table>


C 5. An adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food.

Discipline Area: Language
Subject: Language
Problem Orientation: Clean Air

BEHAVIORAL OBJECTIVES

Cognitive: They will list words that tell about the conditions of the air. They will write a poem or prose about air. Adv. students may want to create their own.

Affective: A list of words describing pure and impure air will be given to the child. He will put a P by the words that represent pure and an I by impure. (As smoke, supper cooking)

Skills to be Learned
Vocabulary development
Poem or prose writing

SUGGESTED LEARNING EXPERIENCE

I. Student-Centered in class activity
A. Class activity
1. Have children give words which describe air as the teacher lists them on board. (Muggy, clean, foggy, smelly, polluted)
2. Discuss meaning of words bringing in the fact that living organisms need air.
3. Class write a composite poem or prose about air.
4. Advanced students may wish to compose their own.
The supply of clean air is essential to the most organisms, through respiration, they obtain energy in their food.

**Discipline Area** | Language Arts
---|---
**Subject** | Language Arts
**Problem Orientation** | Clean Air
**Grade** | 3

### OBJECTIVES

<table>
<thead>
<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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<tbody>
<tr>
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**II. Outside Resource and Community Activities**
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
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<tr>
<td><strong>Community:</strong></td>
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</tbody>
</table>

**107**
| Materials | Continued and Additional Suggested Learning Experiences |
6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Students will demonstrate by means of oral or written reports, some of the ways in which minerals can be recycled, in order to insure an adequate supply for future use.

**Affective:** How did you feel about the responses of the people in our community when you asked if they were willing to turn in bottles and cans? The responses could be very willing, rather willing, or unwilling.

**Skills to be Learned**

- Reporting
- Writing poems
- Writing stories
- Discussion

**SUGGESTED LEARNING ACTIVITIES**

1. Student-Centered in class activity

   - Children can make verbal reports of their findings in the survey.

2. Short original poems about pollution of streams, and littering of highways. This could include the Haiku form of unrhymed verse.
resources are not equally distributed over the earth or over the geographic and quality of life. 

<table>
<thead>
<tr>
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<th>Language Arts</th>
</tr>
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<tbody>
<tr>
<td>Subject</td>
<td>Language</td>
</tr>
<tr>
<td>Problem Orientation Resource Usage Grade</td>
<td>3</td>
</tr>
</tbody>
</table>

**SUGGESTED LEARNING EXPERIENCES**

**I. Student-Centered in class activity**
1. Children can make verbal reports of their findings in the survey.
2. Short original poems about pollution of streams, and littering of highways. This could include the Haiku form of unrhymed verse.

**II. Outside Resource and Community Activities**
1. Collect empty soda and beer bottles and return them to the stores for refunds and reuse.
2. Collect used cans of both aluminum and tin for recycling purposes.
3. Children may survey their neighborhoods, to find if people are willing to turn in bottles and cans.
<table>
<thead>
<tr>
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<tbody>
<tr>
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<tr>
<td>Grade Teacher, Dec., '70, p. 4</td>
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<tr>
<td>&quot;About Pollution&quot;</td>
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<tr>
<td>The Elks Magazine Feb., '71.</td>
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<tr>
<td>&quot;Ten Things to Tell Your Wife</td>
<td></td>
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<tr>
<td>About Pollution.&quot; pp. 8-10, 29.</td>
<td></td>
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<tr>
<td>Pamphlet - &quot;Conserving Our Waters</td>
<td></td>
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<tr>
<td>and Cleaning the Air.&quot; American Petroleum Institute. 1271 Avenue</td>
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<tr>
<td>of the Americas. New York City,</td>
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<td>New York 10010</td>
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<td><strong>Audio-Visual:</strong></td>
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<tr>
<td>Filmstrip - Water for Tomorrow.</td>
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<tr>
<td>Two color filmstrips and record.</td>
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<tr>
<td>Teacher's Guide. 1810 Mackenzie Drive, Columbus, Ohio.</td>
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<tr>
<td><strong>Community:</strong></td>
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<tr>
<td>Local company (interview,</td>
<td></td>
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<tr>
<td>brochures, and information)</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
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</table>

Waters Avenue, 29. African City, Kenzie Row. Record. Enzie
Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Compare the roads of long ago with the modern day roads showing a change in uses due to population growth.

**Affective:** The teacher will give a hypothetical situation such as, a man with a small farm on the edge of town cannot raise enough food to feed his cows and he cannot buy more land. What should he do and why?

**Skills to be Learned**
- Interpreting
- Illustrating
- Comparisons

**SUGGESTED LEARNING EXPERIENCE**

I. Student-Centered in class activity
   A. Classroom
      1. The teacher will use pictures of different types of roads for comparison.
      2. The students will compare farms, towns, cities of today to the farms, towns & cities of long ago. e.g. Cobblestone streets vs cement streets, dirt roads vs asphalt roads
      3. Discussion will follow telling why people move about now & how they moved about years ago.
      4. The students will pick out an area & make a picture, showing what it looked like years ago & how it has been changed to help us move from place to place. e.g. Dirt roads vs freeways.
such as facilitating transportation, 
and leisure time have a great influence on changes in land use and population density. 

**Problem Orientation**: Transportation  

**Subject**: Language Arts  

**Grade**: 3  

**Discipline Area**: Language Arts  

**Subject**: Language Arts

---

### I. Student-Centered in class activity

#### A. Classroom

1. The teacher will use pictures of different types of roads for comparison.

2. The students will compare farms, towns, cities of today to the farms, towns & cities of long ago. e.g. Cobblestone streets vs cement streets, dirt roads vs asphalt roads.

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---

### II. Outside Resource and Community Activities
Resource and Reference Materials

Audio-Visual:

Community:
| Reference Materials | Continued and Additional Suggested Learning Experiences |

---

111
6. Cultural, economic, social, and political factors determine status. One man’s values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The children will distinguish between the needs of a family and the luxuries by classifying pictures into the above 2 groups and will tell the resources of our environment needed and those which are luxuries.

**Affective:** Is it true that our needs and luxuries use up our natural resources and at the same time cause a pollution problem.

**Skills to be Learned**
- Classifying
- Critical thinking
- Using library references

**SUGGESTED LEARNING EXPERIENCES**

I. Student-Centered in class activity

1. Children bring to class a picture of their family & catalogs & magazines.
2. The children will cut out pictures showing what the family needs & what the family wants.
3. A discussion will follow on what happens to our natural resources & pollution of our country when everyone has what he wants & what he needs.
4. Have a list of resources & tell children what resource was used for articles from No. 2. Library references may have to be used.

II. Our Com
Children between family and classifying above 2 will the environment which true that they use natural resources as cause their needs and wants. A discussion will follow on what happens to our natural resources and pollution of our country when everyone has what they want and what they need.

4. Have a list of resources and tell children what resource was used for articles from No. 2. Library references may have to be used.

I. Student-Centered in class activity
1. Children bring to class a picture of their family and catalogs and magazines.
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3. A discussion will follow on what happens to our natural resources and pollution of our country when everyone has what they want and what they need.

II. Outside Resource and Community Activities

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</table>

**113**
10. Short-term economic gains may produce long-term environmental losses.

Cognitive: By dramatizing & discussing, the students will show ability to empathize with each point of view in the killing for sport situation and will realize that short-term gains may mean long-term loss.

Affective: By volunteering observations in a class discussion, the student accepts the fact that short-term environmental gains may produce long-term environmental loss.

Skills to be Learned
- Dramatizing
- Critical judgement
- Verbal empathy
- Creative writing
- Oral skills

Discipline Area: Language
Subject: Dramatizing
Problem Orientation of RE: Conservation

I. Student-Centered in class activity
A. Classroom
1. Read poem, Hunting Song by Donald Finkel to class.
2. Students decide what is meant in each stanza & how the character of each stanza feels.
3. Discussion of why the hunter wanted to kill the fox.
4. Discuss whether this is a good or poor idea, including what could happen if too many fox are killed.
5. The children will form into small groups & give an extemporaneous dramatization in which the characters are animals & hunters.
6. Children will give their viewpoints on hunter's justification of killing fox.
In economic gains may

...term environmental

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<thead>
<tr>
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<td>Subject</td>
<td>Dramatization &amp; Discussion</td>
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<tr>
<td>Problem Orientation of Resources</td>
<td>Grade 3</td>
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</table>

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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<tbody>
<tr>
<td>dramatizing the students' ability to reach point killing</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>conservation and that short-term mean long-term gains</td>
<td>A. Classroom</td>
</tr>
<tr>
<td>volunteering a class</td>
<td>1. Read poem, Hunting Song by Donald Finkel to class.</td>
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<td>Community:</td>
<td>Poem, Hunting Song, Donald Finkel</td>
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<td>Audio-Visual:</td>
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<td>Continued and Additional Suggest</td>
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</table>
Individual acts, duplicated, or compounded, produce significant environmental alterations over time.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The students will examine a cubic foot of earth, listing their findings. When changes are made, students will record these changes, and will report the results of these changes.

**Affective:** The children will respond to the question of--What could we do to improve our school to make it a more enjoyable place?

**Skills to be Learned**
- Making comparisons
- Keener awareness and use of the senses

**SUGGESTED LEARNING EX: Student-Centered in class activity**

1. 
2. 
3. 
4.
acts, duplicated, produce significant alterations over time.

<table>
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<td>students will learn. Student-Centered in class activity</td>
<td>II. Outside Resource and Community Activities</td>
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<tr>
<td>footprint of their changes, and results of children that could be ours?</td>
<td>1. Examine the various levels of the earth: color, texture, density, smell.</td>
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<td></td>
<td>2. Using senses -</td>
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<tr>
<td></td>
<td>a. Describe the smell of the earth</td>
</tr>
<tr>
<td></td>
<td>b. What words would you use to tell how the earth feels?</td>
</tr>
<tr>
<td></td>
<td>c. Do some parts feel differently?</td>
</tr>
<tr>
<td></td>
<td>d. How many colors do you see?</td>
</tr>
<tr>
<td></td>
<td>e. Look for signs of life.</td>
</tr>
<tr>
<td></td>
<td>f. Listen as you rub the earth between your hands. Can you describe the sound?</td>
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<tr>
<td></td>
<td>3. In what ways can we change the earth?</td>
</tr>
<tr>
<td></td>
<td>a. Add water to it</td>
</tr>
<tr>
<td></td>
<td>b. Add fertilizer</td>
</tr>
<tr>
<td></td>
<td>c. Plant something in it</td>
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<td></td>
<td>d. Let it dry out in the sun</td>
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<tr>
<td></td>
<td>e. Heat it in an oven</td>
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<td></td>
<td>4. Try some of the above ideas with the earth. Plant the same kind of seed (corn)</td>
</tr>
</tbody>
</table>

(cont.)
Resource and Reference Materials

Publications:
A Handful of Soil, Simon, Seymour, Hawthorne Books. 70 Fith Avenue, New York, New York 10011. $3.95

Audio-Visual:

Community:

Continued and Additional Suggested Learning Materials

II. cont.

in foam cups and give each the same
Keep some of the plants away from
some in the window.
5. Report findings and draw conclusions
in foam cups and give each the same amount of water. Keep some of the plants away from direct light, and some in the window.

5. Report findings and draw conclusions.
C 12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING</th>
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<tbody>
<tr>
<td>Cognitive: Children will list 5 measures &amp; situations where private ownership must involve private stewardship. Affective: A child shows by his behavior that he regards private ownership as a stewardship &amp; should not encroach upon or violate the individual rights of others.</td>
<td></td>
</tr>
<tr>
<td>Skills to be Learned</td>
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<tr>
<td>Listening</td>
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<tr>
<td>Reasoning</td>
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<tr>
<td>Discussion</td>
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<tr>
<td>Critical thinking</td>
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I. Student-Centered in class activity

A. Classroom

1. Before class begins, the teacher will distribute her possessions around the room - on desks, under & near desks. She hopes the children will return them.

2. Discussion of what has just happened. Ask if it was right for me as a teacher to leave my things about. Why? (Someone else had to pick them up, they were in people's way. She was just causing other people to do unnecessary work.

3. Have students list things which they should do to show they take care of their possessions & do not cause other people to suffer.

4. Do you like to have your area & freedom to work cluttered up with others possessions? or your space used by someone else's belongings?
Ownership must be stewardship and not a right of others. Disciplne Area Language Arts
Subject Oral Expression
Problem Orientation of Resources Grade 3

OBJECTIVES
Children will identify & situations in which they show by their behavior that they respect the possessions of others. They should not nor violate the rights of others.

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered activity
   A. Classroom
   1. Before class begins, the teacher will distribute
      her possessions around the room - on desks, under
      & near desks. She hopes the children will return
      them.

      2. Discussion of what has just happened. Ask if it was right for me as a teacher to leave my things about. Why? (Someone else had to pick them up, they were in people's way. She was just causing other people to do unnecessary work.

      3. Have students list things which they should do to show they take care of their possessions & do not cause other people to suffer.

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<tr>
<td><strong>Community:</strong></td>
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</table>
In commenting on each episode used in your class, you may wish to use this format. Please feel free to adapt it and add more pages. Let us know your comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities:

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

Filling out each episode used in your class, you may wish to duplicate this suggested form. Feel free to adapt it and add more pages. Let us know all your critiques and comments.

Objectives:

Effective:

Developed:

Guided Learning Experiences:

Class:

Side & Community Activities:

Related Resource & Reference Materials:

Specific suggestions & comments)
A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts  GRADE 4

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin  54301
(414) 432-4338

Robert Warpinski
Robert Kellner,
George Howlett,
INSTRUCTION - CURRICULUM - ENVIRONMENT

PROGRAM FOR ENVIRONMENTAL EDUCATION

Language Arts GRADE 4

III E.S.E.A.

SESA's 3-8-9

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist
PREFACE

If you wish to excite students about their environment, help is read-
of over a hundred teachers, year long meetings, a summer workshop, uni-
egologists, this guide means realistic, developed aid for you. Please-
which have directed teachers in writing and editing this guide.

1. This guide is *supplementary* in nature and the episodes are designed-
ences--to plug into existing, logical course content.

2. Each page or episode offers suggestions. Since you know your stu-
d to adapt, adopt, or use. By design, the range of suggestions is wid-
ent and usage are even wider. Many episodes are self-containe-
others can be changed in part or developed more keenly over a few w-
possibilities allow you to explore.

3. Now we urge that you *try the episodes* and suggested learning experi-
plan. The reasons are simple. No guide has all the answers and no-
less viewed in the context of your classroom situation. Thus, be-
give it a triple reading, check over the resources listed, make men-
prime your students, and seek help. The Project personnel and teach-
knowledgeable page stand ready to aid your efforts. Feel free to ask-

4. The Project Resource Materials Center serves all CESA 3, 8, and 9 as-
private. We will send available materials pre-paid. Call for any I-
visit. Phone 432-4338.

5. Check often the Project ICE Bibliography in your school library for-
Center materials. Please offer suggestions, comments, or advice--an-
service may grow. Let's help each other.

6. **Involve yourself with the guide** by reacting to it with scratch ideas-
suggestions on the episode pages or use the attached evaluation form-
lected in late May next year and will be used in our revisions. We s-
reactions and suggestions--negative and positive. Please note that s-
in the episodes may refer to specific, local community resources or-
cases, individual school districts and teachers will have to adopt in-
stitutes. A list of terms pertinent to the episodes is below.

7. Ecologists and other experts have simplified the issue--survival--VC-
Creation's beauty and complexity--often noted as the work of a genius-
and human energy to save. A year's work by a hundred of your fellow-
gesture. Without you, their work will crumble, and so might we all--
let us live to think, feel, and act in harmony with our world.

Edi-

1. **Cognitive** means a measurable mental skill, ability, or process ba-

2. Affective refers to student attitudes, values, and feelings.

3. APWI means Acceptable Performance Will Include (labels a cognit-

4. EPA - Environmental Problem Area.
PREFACE

It is ready. Thanks to the efforts of many individuals, year long meetings, a summer workshop, university consultants and community leaders, realistic, developed aid for you. Please note the following ideas and suggestions in writing and editing this guide.

The episodes are designed--at appropriate instan-
taneous, logical course content, to offer suggestions. Since you know your students best, you decide what use. By design, the range of suggestions is wide; your chances for experi-
ence are even wider. Many episodes are self-contained, others open-ended, still
in part or developed more keenly over a few weeks. These built-in

ify the episodes and suggested learning experiences but please pre-
are simple. No guide has all the answers and no curriculum will work
context of your classroom situation. Thus, before trying an episode,
ing, check over the resources listed, make mental and actual notes,
and seek help. The Project personnel and teachers listed on the ack-
and ready to aid your efforts. Feel free to ask their help in pre-planning.

Materials Center serves all CESA 3, 8, and 9 area schools--public and
available materials pre-paid. Call for any help, materials, or to

pect ICE Bibliography in your school library for available Resource
lease offer suggestions, comments, or advice--at any time--so that this
It's help each other.

The guide by reacting to it with scratch ideas, notes, and extended
episode pages or use the attached evaluation format, which will be col-
next year and will be used in our revisions. We sincerely want your
ions--negative and positive. Please note that some resources listed
fer to specific, local community resources or conditions. In such
hool districts and teachers will have to adopt local or available sub-
terms pertinent to the episodes is below.

experts have simplified the issue--survival--yours, mine, our stu-
complexity--often noted as the work of a genius--will take our genius
ave. A year's work by a hundred of your fellow teachers is a saving
, their work will crumble, and so might we all--literally. Instead,
feet, and act in harmony with our world.

Editorial Board

measurable mental skill, ability, or process based on factual data.
o student attitudes, values, and feelings.
ble Performance Will Include (labels a cognitive or mental performance.)

Problem Area.

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ACKNOWLEDGEMENTS: The following teachers and consultants participated in the development of the Supplementary Environmental Education Guide:

CESA #3
Eugene Anderson, Peshtigo
Laura Berken, Oconto Falls
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Nicholas Dal Santo, Pembine
Robert Dickinson, Oconto
Ann Fuhrmann, Marinette
Lillian Goddard, Coleman
William Harper, Lena
Robert Herz, St. James (L)
Ester Kaatz, Wausauke
Michael Kersten, Suring
Douglas Koch, Cath. Central
Donald Marsh, Bonduel
David Miskulin, Goodman
Don Olsen, Shawano
Elmer Schabo, Niagara
Marion Wagner, Gillett
Ruth Ward, Crivitz
George Kreiling, Marinette
Marg. McCanbridge, White Lake
Virginia Pomusl, White Lake
Gailen Braun, Lena
Kay DePuydt, Gillett
Lousene Benter, Gillett

CESA #8
Lowell Baltz, Weyauwega
William Behring, Lourdes
David Bell, Neenah
Marie Below, Clintonville
William Bohne, Kimberly
Bob Church, Little Chute
Ronald Conradt, Shiocton
Lee Halberg, Appleton
Ronald Hammond, Hortonville
Jerome Hennes, Little Chute
Barbara Huth, Menasha
Darrell Johnson, Hortonville
Bernadyne King, Neenah
Harold Lindhorst, St. Martin (L)
John Little, Winneconne
Gordon Rohloff, Oshkosh
William Schaff, St. Joseph
Doris Stehr, Mt. Calvary (L)
Carolyn Shills, New London
Sister Dorothy, Xavier
Clarence Trentlage, Freedom
Mike Hawkins, Xavier
Beth Hawkins, Xavier
Ed Patschke, Menasha
Connie Petersen, St. Martin (L)
Dallas Werner, Kaukauna
Ron Schreier, Omro

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Sister Almy
Jim Almy
Joyce Almy
Richard Almy
Gloria Almy
George Almy
Alan Almy
Thomas Almy
Ruth W. Almy
James W. Almy
John To Almy
Benjamin Almy
Greg Sch Almy
John De Almy
Emmajean Almy
Ray Gan Almy
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John Hul Almy
Sister Almy

Robert Almy
Dennis Almy
The following teachers and consultants participated in the development of the Supplementary Environmental Education Guide:

**CESA #8**
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- Angela Anthony, Gibraltar
- Harold Baeten, St. Norbert
- Anthony Balistreri, Howard-Suamico
- Lillian Berges, Seymour
- Carmella Blecha, Green Bay
- Joan Charnetski, Sevastopol
- Billie Feichtinger, Green Bay
- Rev. B. Frigo, Abbot Pennings
- Robert Haen, Luxemburg-Casco
- Russ Hanseter, Seymour
- Paul Kane, Ashwaubenon
- Roy Lukes, Gibraltar
- Sister Anna, St. Philips
- Jim Maki, Sturgeon Bay
- Joyce Mateju, Algoma
- Richard Minten, W. DePere
- Gloria Morgan, Linsmeier Private
- George Pederson, Southern Door
- Alan Schuh, Pulaski
- Thomas Weyers, Cathedral
- Ruth Windmuller, Green Bay
- James Wiza, DePere
- John Torgerson, Kewaunee
- Benjamin Roloff, Howard-Suamico
- Greg Schmitt, Cathedral
- John DeWan, Green Bay
- Emmajean Harmann, Sevastopol
- Ray Gantenbein, Green Bay
- David Bartz, Sturgeon Bay
- John Hussey, Green Bay
- Sister Barbara, St. Bernard
- Robert Cook, UWGB
- Dennis Bryan, UWGB
1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

**Behavioral Objectives**

**Cognitive:** The students will be able to point out how life depends on the sun by listing ways, dramatizing poems, creative writing of poems, and choral reading.

**Affective:** The children will praise the sun as a basic source of energy - even through poetry.

**Skills to be Learned**

- Dramatizing
- Listing
- Creative writing
- Discussion
- Using library resources
- Choral reading
- Analysis

**Suggested Learning Activity**

1. Children will bring poems to class concerning the sun.
2. As individual poems are read, each student will jot down ways in which life depends on the sun.
3. Discussion will follow of the ways in which life depends on the sun after each poem or after all poems are read.
4. The children can use the poem on back for choral reading using light, medium, and dark voices.
5. The children can form into groups, each group choosing a poem to dramatize putting emphasis on how the sun helps us.
6. The children can write short poems telling about the energy of the sun; e.g.:
   
   **I wait for the sun each morn.**
   When each new day is born,
   To see each lovely thing.
   What new life it will bring.
From the sun, the basic source of energy, is converted through synthesis into a form all humans can use for life processes.

**AL OBJECTIVES**

- Students will point out wonders on the sun's surface, drama-creating poems, and poetry.
- Children will see the sun as a source of energy - poetry.

**Learned**

- Reading
- Writing
- Poetry resources

**SUGGESTED LEARNING EXPERIENCES**

**I. Student-Centered in class activity**

1. Children will bring poems to class concerning the sun.
2. As individual poems are read, each student will jot down ways in which life depends on the sun.
3. Discussion will follow of the ways in which life depends on the sun after each poem or after all poems are read.
4. The children can use the poem on back for choral reading using light, medium, and dark voices.
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   I wait for the sun each morn,
   When each new day is born,
   To see each lovely thing.
   What new life it will bring.

**II. Outside Resource and Community Activities**
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
</tr>
<tr>
<td>Man (In a Poetic Mode)</td>
<td>Song for the Sun That Disappeared</td>
</tr>
<tr>
<td>McDongal, Littell &amp; Co.</td>
<td></td>
</tr>
<tr>
<td><strong>Poems:</strong></td>
<td></td>
</tr>
<tr>
<td>On A Sunny Evening – Anonymous</td>
<td></td>
</tr>
<tr>
<td>Children</td>
<td></td>
</tr>
<tr>
<td>Song for the Sun that Disappeared</td>
<td></td>
</tr>
<tr>
<td>Behind the Rainclouds, Primitive</td>
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</tr>
<tr>
<td>African Trans. Ullibeier.</td>
<td></td>
</tr>
<tr>
<td><strong>Audio-Visual:</strong></td>
<td></td>
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<tr>
<td><strong>Community:</strong></td>
<td></td>
</tr>
</tbody>
</table>

The fire darkens, the wood.
The flame extinguishes, my
God sets out in search of
The rainbow sparkles in his
the bow of the divine hue.
He has heard the lamentation.
He walks along the milky

With quick arms he piles
piles them up with quick
like a woman who collects
and piles them into her
until the pot overflows
until the basket overflows

Primitive African (Horn)
Translated by Ulli B
Song for the Sun That Disappeared Behind the Rainclouds

The fire darkens, the wood turns black.
The flame extinguishes, misfortune upon us.
God sets out in search of the sun.
The rainbow sparkles in his hand,
the bow of the divine hunter.
He has heard the lamentations of his children.
He walks along the milky way, he collects the stars.

With quick arms he piles them into a basket,
piles them up with quick arms
like a woman who collects lizards
and piles them into her pot, piles them up
until the pot overflows with lizards
until the basket overflows with light.

Primitive African (Hottentot)
Translated by Ulli Beier
2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Each child will write an imaginative story of one day in the life of a plant or animal observed in the patch or clump of earth.  

**Affective:** They will learn to enjoy nature as it is without man.

**Skills to be Learned**  
Using descriptive language  
Sentence structure  
Paraphrasing  
Imagination  
Using card catalog

**SUGGESTED LEARNING EXPERIENCES**

I. Student-Centered in class activities  
1. Read poem "The Worm" or similar poem about small creatures. Children put themselves in role of creature in poem & act out what might happen to it during one day.

2. Write stories - children take part of any plant or animal found in study and write about - My Day in a Clump of Grass.
isms interact among

e environment,

The unit called

Discipline Area Language Arts

Subject

Problem Orientation Ecosystem Grade 4

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activities

1. Read poem "The Worm" or similar poem about small creatures. Children put themselves in role of creature in poem & act out what might happen to it during one day.

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### Resource and Reference Materials

<table>
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<tr>
<th>Publications:</th>
<th>Audio-Visual:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Books:</td>
<td>String &amp; stakes or shovels</td>
</tr>
<tr>
<td>Concepts in Science 4 p. 135-73 and p. 175-209.</td>
<td>Several reading glasses</td>
</tr>
<tr>
<td>Under a Tree by Elizabeth Madox Roberts - Viking Press.</td>
<td>Plastic bags or wide-mouth</td>
</tr>
<tr>
<td>Our Living World of Nature by McGraw-Hill Book Co.</td>
<td>glass jars for carrying earth</td>
</tr>
<tr>
<td>The Life of the Cave</td>
<td>samples</td>
</tr>
<tr>
<td>The Life of the Ocean</td>
<td>Movie projector</td>
</tr>
<tr>
<td>The Life of the Marsh</td>
<td>Film:</td>
</tr>
<tr>
<td>The Life of Rivers &amp; Streams</td>
<td>Life in a Cubic Foot of Soil</td>
</tr>
<tr>
<td>The Life of the Pond</td>
<td>BAVI 5677 - 11 min.</td>
</tr>
<tr>
<td>The Life of the Seashore</td>
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<tr>
<td>The Life of the Desert</td>
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<tr>
<td>The Life of the Mountains</td>
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<tr>
<td>The Life of the Prairies &amp; Plains</td>
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<tr>
<td>Margaret Waring Buck, Abingdon</td>
<td>In Woods &amp; Fields</td>
</tr>
<tr>
<td>In Woods &amp; Fields</td>
<td>In Ponds &amp; Streams</td>
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<tr>
<td>In Ponds &amp; Streams</td>
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### Community:
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<tr>
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<th>Continued and Additional Suggested Learning Experiences</th>
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</table>
| p. 135-73 | S. A. Eth Madox
|           | S. S. S. S. suggested by
|           | Abingdon
|           | The Stream
|           | In Streams
|           | Shore
|           | Desert
|           | Mountains
|           | Valleys & Plains
|           | Earth
|           | of Soil
|           | Erosion
Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity. (3) Problem Orientation

### Behavioral Objectives

**Cognitive:** List 5 ways that the classroom becomes too crowded & uncomfortable for good learning. (Ex., poor air, noise, lack of room for walking, no room for experiments, teacher can't find time to talk to students.)

**Affective:** Defend the idea that all plants, animals, & people can become too many for a given area and this causes a lack of quality.

**Skills to be Learned**
- Concentration of a concept
- Making observations
- Taking notes
- Reporting (objective description)

### Suggested Learning Experiences

I. **Student-Centered in class activity**
   1. Teacher asks, "What would happen if our principal said we needed to have 18 more students put into our rather small classroom?"
   Discussion:
   - a. Conditions for learning
   - b. Conditions for activities
   - c. Conditions for noise
   Take notes.

II. **Out-of-class activity**
   1. **Comprehension**
Factors are limiting organisms living influence, thus, each carrying capacity. (3) Problem Orientation

<table>
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<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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<td>c. Conditions for noise</td>
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<tr>
<td>Take notes.</td>
</tr>
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<td>II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
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<tr>
<td>----------------------------------</td>
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<tr>
<td>Publications:</td>
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</tbody>
</table>

**Audio-Visual:**

**Community:**
<table>
<thead>
<tr>
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</table>
4. An adequate supply of pure water is essential for life.

**BEHAVIORAL OBJECTIVES**

<table>
<thead>
<tr>
<th>Cognitive:</th>
<th>The child will show that he understands the water cycle by writing an imaginative story about a water molecule.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective:</td>
<td>The student will read a favorite poem about water to the class.</td>
</tr>
</tbody>
</table>

**Skills to be Learned**

- Interpreting poetry and music
- Reacting physically to poetry and music
- Creative writing

**SUGGESTED LEARNING EXPERIENCES**

I. Student-Centered in class activity

1. Read aloud poems to contrast moods.
2. Interpret through pantomime and creative dance the moods of music and poems (especially those starred). Children become raindrops, ocean waves, snowflakes, plants, animals, etc.
3. Dramatize the water cycle incorporating feeling & moods from poems & music with facts from science or social studies—include polluting agents into dramatization.
4. Write imaginative story "The Travels of the Water Molecule."
The child will understand a cle by writing a story about a cule.
The student favorite poem to the class.

**AL OBJECTIVES**

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| 3. Dramatize the water cycle incorporating feeling & moods from poems & music with facts from science or social studies--include polluting agents into dramatization. |
| 4. Write imaginative story "The Travels of the Water Molecule." |
| **II. Outside Resource and Community Activities**

**Discipline Area** Language Arts

**Subject** English

**Problem Orientation** Water Supply

**Grade** 4
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested</th>
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<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
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<tr>
<td><strong>Books:</strong></td>
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<tr>
<td>Wind Song by Carl Sandburg</td>
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<tr>
<td>p. 23 Sea Wisdom, Harcourt,</td>
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<tr>
<td>Brace, &amp; World p. 63</td>
<td></td>
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<tr>
<td>Niagara, p. 106* Summer Grass</td>
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<tr>
<td>Let Freedom Ring, Hallmark Cards</td>
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<tr>
<td>Navajo Chant.</td>
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<tr>
<td>Little Hills - Sam Bryan, p. 51</td>
<td></td>
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<tr>
<td>Tap Roots &amp; Tips, Wells Printing</td>
<td></td>
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<tr>
<td>Co., Madison.</td>
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<tr>
<td>The Poems of Robert Frost, p. 263</td>
<td></td>
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<tr>
<td>Spring Fools, Random House.</td>
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<tr>
<td>Miracles by Richard Lewis,</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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<td><strong>Record:</strong></td>
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<tr>
<td>La Mer*, Debussy.</td>
<td></td>
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<tr>
<td>Reference Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
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<tr>
<td>Sandburg</td>
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<td>Harcourt,</td>
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<td>63</td>
<td></td>
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<td>Summer Grass</td>
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<td>Hallmark Cards</td>
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<td>Bryan, p. 51</td>
<td></td>
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<tr>
<td>Wells Printing</td>
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<tr>
<td>Frost, p. 263</td>
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<tr>
<td>Dodd House.</td>
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<tr>
<td>Lewis, &amp; Schuster.</td>
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</tr>
</tbody>
</table>
An adequate supply of pure water is essential for life.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Each child will write a letter, in correct form, either requesting permission to visit plant or thanking people who conducted tour and each child will write a report or make a poster or chart recording information gained.

**Affective:** The child will be able to organize information about adequate water supply.

**Skills to be Learned**
- Correct letter form
- Notetaking
- Summarizing
- Sentence structure
- Paragraphing
- Spelling

**SUGGESTED LEARNING EXPERIENCE**

I. Student-Centered in class activity
   1. Write letters to water plant and/or sewage disposal plant requesting permission to visit—use text for correct form.
   2. Discuss how to take notes.
   3. Write reports of field trips for school paper, newspaper, children's own writing notebooks, bulletin board, office, reports to P.T.A. etc. Or, Make posters and charts showing how water is obtained & distributed & how sewage is collected, treated & disposed of.
   4. Write thank-you notes.
   5. Read poem "The Tide River" about pollution in 19th century.
Adequate Problem Orientation

Problem Orientation

Grade 4

OBJECTIVES

I. Student-Centered in class activity

1. Write letters to water plant and/or sewage disposal plant requesting permission to visit—use text for correct form.

2. Discuss how to take notes.

3. Write reports of field trips for school paper, newspaper, children's own writing notebooks, bulletin board, office, reports to P.T.A. etc. Or, Make posters and charts showing how water is obtained & distributed & how sewage is collected, treated & disposed of.

4. Write thank-you notes.

5. Read poem "The Tide River" about pollution in 19th century.

SUGGESTED LEARNING EXPERIENCES

II. Outside Resource and Community Activities

1. Field trip to water plant and/or sewage disposal plant. Follow with discussion.
Resource and Reference Materials

Publications:

Books:

Poem:

Audio-Visual:
- Large sheets of cardboard

Community:
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book 4, Race, &amp; Concepts &amp; Harcourt, p. 219-</td>
<td></td>
</tr>
</tbody>
</table>
An 'adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food. Subject

BEHAVIORAL OBJECTIVES

1. Student-Centered in class activity

Skills to be Learned
Dramatize Linking action & thought-through imagination

Cognitive: Each child give a 1/2 minute pantomime on how the object gets air. 

Problem Orientation Clean Air

II. Concept

SUGGESTED LEARNING EXPERIENCES

A. By research

B. By discussion

Language Arts

Discipline Area

C. Language Arts

ESEA Title III - 59-70-0135-1 Project I-C-E

Problem Orientation Clean Air

- Depend on oxygen, through respiration, to release the energy in their food.
### OBJECTIVES

<table>
<thead>
<tr>
<th>I</th>
<th>II</th>
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<tbody>
<tr>
<td>Student-Centered in class activity</td>
<td>Outside Resource and Community Activities</td>
</tr>
</tbody>
</table>

### SUGGESTED LEARNING EXPERIENCES

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Each child brings a picture of a plant, animal or machine (excluding people) which need air.</td>
</tr>
<tr>
<td>B. Discuss how all these things use our air—is the air now as clean as it was before its use.</td>
</tr>
</tbody>
</table>

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These most organisms, through respiration, release energy in their food.
Resource and Reference Materials

Publications:

Audio-Visual:
Pictures or objects such as (toy cars, trains, fish, etc.)

Community:
<table>
<thead>
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<td>etc.</td>
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</tbody>
</table>

135
6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive:</strong> Student will answer factual questions on the resources of his choice.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td><strong>Affective:</strong> Each child will respond to the teacher: Do you think you picked a good resource to show that natural resources are not distributed equally? Why or why not?</td>
<td>1. Students role-play a natural resource (rain, trees, etc.)</td>
</tr>
<tr>
<td><strong>Skills to be Learned</strong></td>
<td>2. Each student chooses one resource.</td>
</tr>
<tr>
<td>Locating and taking notes on a selected item</td>
<td>3. Students ask questions — answered by role-player.</td>
</tr>
<tr>
<td>Standing before class to role-play.</td>
<td>4. Questions ought to be on the availability &amp; quantity left on Earth of their particular resource.</td>
</tr>
</tbody>
</table>

Problem Orientation Resource: Student will answer factual questions on the resources of his choice.
I. Student-Centered in class activity
   1. Students role-play a natural resource (rain, trees, etc.)
   2. Each student chooses one resource.
   3. Students ask questions - answered by role-player.
   4. Questions ought to be on the availability & quantity left on Earth of their particular resource.

II. Outside Resource and Community Activities
   1. Research of resource in library.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
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</thead>
<tbody>
<tr>
<td>Publications</td>
<td></td>
</tr>
</tbody>
</table>

**Audio-Visual:**

**Community:**

| 137 |
| Source Materials | Continued and Additional Suggested Learning Experiences |
Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

### Behavioral Objectives

<table>
<thead>
<tr>
<th>Cognitive:</th>
<th>Affective:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children will perform, through pantomime, a clear idea on a leisure time activity. Peers will interpret pantomime &amp; the children should differentiate between harmless and harmful.</td>
<td>The teacher will provide a list of leisure time activities (play) to be classified into suitabilities for children, young people &amp; adults.</td>
</tr>
</tbody>
</table>

### Skills to be Learned

- Dramatization
- Making judgements

### Suggested Learning Experience

#### I. Student-Centered in class activity

**A. Classroom**

1. Teacher will ask the students, "What is leisure time?"
2. How many hours of leisure time do we have during a school day? a week-end? summer time?
3. Children choose a leisure time activity to dramatize.
4. Each activity is listed on the board & class discussion as to whether this activity caused a harmful effect on our environment.
5. Children may classify these leisure time activities into suitabilities for:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Children</th>
<th>People</th>
<th>Adults</th>
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<tbody>
<tr>
<td>Reading</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Bike riding</td>
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<td>Building blocks</td>
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<td>Baseball</td>
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<td>Singing</td>
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<td>Playing</td>
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<tr>
<td>Dolls</td>
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<tr>
<td>Swimming</td>
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facilitating transportation,

- population growth, Discipline Area Language Arts

facilitating transportation, population growth, Discipline Area Language Arts

Problem Orientation Leisure Time Grade 4

<table>
<thead>
<tr>
<th>ACTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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<tbody>
<tr>
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<td>A. Classroom</td>
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<td>Young Children People Adults</td>
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<td>Reading</td>
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<td>Bike riding</td>
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<td>Baseball</td>
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<td>Playing dolls</td>
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<td>Swimming</td>
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II. Outside Resource and Community Activities
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestions</th>
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<tbody>
<tr>
<td>Publications:</td>
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**Audio-Visual:**

**Community:**
| Science Materials | Continued and Additional Suggested Learning Experiences |
Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

| Cognitive: Each student will demonstrate his attitude toward his environment through the media of writing poetry. Affective: Color in nature enhances our lives. Shall we change this natural color by pollution? |
|---|---|

<table>
<thead>
<tr>
<th>Skills to be Learned</th>
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<tbody>
<tr>
<td>Observation Writing poetry</td>
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**SUGGESTED LEARNING EXPERIENCE**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
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<tr>
<td>1. Read several poems to children.</td>
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<td>2. Discuss the type of person who could write things like this about color. How do you think she feels about her environment.</td>
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<td>3. Discuss the senses she should have to use.</td>
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<td>4. Depending on the season of year, concentrate on an appropriate color: green or brown, blue, or white, etc.</td>
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<td>5. Write a poem telling about the color being emphasized.</td>
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<th>II. Outs</th>
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<td>Communication</td>
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<td>2. Lit</td>
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<td>a. Read</td>
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<td>b. Doc</td>
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<td>PRIMARY OBJECTIVES</td>
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<td>Each student rate his atti-</td>
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<td>sus and attitudes</td>
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<td>Values and attitudes</td>
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<td>Discipline Area</td>
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<td>Social Studies</td>
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<td>Language Arts</td>
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<td>Problem Orientation</td>
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<td>Attitudes</td>
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II. Outside Resource and Community Activities
1. Children, armed with notebooks and a pencil, go outside and look for things that color, touch and collect if reasonable. Smell, perhaps taste. Do you hear anything from that color?
2. Library:
   a. Read additional poems
   b. Do research on Mary O'Neill.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested Learning</th>
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<tbody>
<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>Hailstones and Halibut Bones,</td>
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<td><strong>Audio-Visual:</strong></td>
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<tr>
<td>Recordings of poems and nature sounds to set up &quot;walk&quot; experience.</td>
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<td><strong>Community:</strong></td>
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<tr>
<td>State Historical Society</td>
<td>other sources of nature poems</td>
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<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
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Co4 Inc.
Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

- **Cognitive:** Through writing poetry and copying another poet's poetry about nature, man's values and attitudes toward his environment become more concrete.

- **Affective:** We can praise our surroundings through the poetic words of others and ourselves.

**Skills to be Learned**

- Reading poetry
- Writing poetry
- Listening to poetry

**SUGGESTED LEARNING ACTIVITIES**

1. **Student-Centered in class activity**
   - Introduce pupils to the idea of what an anthology of poems is by having them select poems which they enjoyed. Explain what anthology means.
   - Pupils read favorite poems to class.
OBJECTIVES

I. Student-Centered in class activity
   1. Introduce pupils to the idea of what an anthology of poems is by having them select poems which they enjoyed. Explain what anthology means.
   2. Pupils read favorite poems to class.

II. Outside Resource and Community Activities
   a. Divide class into groups to locate in library categories of poems dealing with nature. Categorize poems into "Animals," "Trees," "Flowers," etc.
   b. Pupils add own poems to copied poems to assemble booklet with their own paintings, printing and cover.
   c. Invite other classes to hear poems and see booklets.
   d. Booklets could be given to shut-ins.
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<thead>
<tr>
<th>Resource and Reference Materials</th>
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<tbody>
<tr>
<td><strong>Publications:</strong></td>
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<td>Children's Anthology.</td>
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<td>Poetry by following writers:</td>
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<td>Eugene Field</td>
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<td>Robert Louis Stevenson</td>
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<td>Henry Longfellow</td>
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<td>James Kiley</td>
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<td>The MacMillan English Series 4,</td>
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**Audio-Visual:**

**Community:**
<table>
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Continued from previous pages:

- References 4,
C 10. Short-term economic gains may produce long-term environmental losses.

BEHAVIORAL OBJECTIVES

Cognitive: After examining the waste paper collection of the classroom or school, the class will prepare a tape, slide or picture presentation of the amount of paper used.

Affective: Students will in some way of their own choice, attempt to improve the manner in which they & their peers can conserve natural resources.

Skills to be Learned

- Group discussion
- Preparation of slides
- Prepare a talk
- Interview

SUGGESTED LEARNING

I. Student-Centered in class activity

A. Classroom

1. There is a rule of thumb after quoted: 19 trees produce a ton of paper. Have student think in terms of 1 tree producing 200 lbs. of paper.

2. Weight the amount of used paper discarded in the class or entire school if possible each day for a week or more.

3. Equate this to the number of trees it required to make this paper.

4. Break into small groups to discuss the ways this situation can be improved. What can they do about it?

5. Then discuss how they can convince their classmates of the need & the way for the wise use of paper. Possibilities:
   a. Panel discussion
   b. Prepare slides & a talk
   c. Prepare slides accompanied by a student prepared tape
   d. Make posters
   e. Make a large tree, animals, children's voices living taped for the talking tree
The economic gains may be long-term environmental

**Discipline Area:** Language Arts

**Subject:** Language

**Problem Orientation:** Land Use

**Grade:** 4

**GENERAL OBJECTIVES**

After examining paper collection in the classroom or school, students will prepare a picture to estimate the amount of the material used. Students will attempt to improve on which they can conserve resources.

**Learned Information**

- Discussion of slides, talk

**SUGGESTED LEARNING EXPERIENCES**

I. Student-Centered in class activity

   A. Classroom

      1. There is a rule of thumb after quoted: 19 trees produce a ton of paper. Have student think in terms of 1 tree producing 200 lbs. of paper.

      2. Weight the amount of used paper discarded in the class or entire school if possible each day for a week or more.

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         a. Panel discussion
         b. Prepare slides & a talk
         c. Prepare slides accompanied by a student prepared tape
         d. Make posters
         e. Make a large tree, animate. Use children's voices live or taped for the talking tree.

II. Outside Resource and Community Activities

   A. Teacher

      1. Measure their attempt to change the behavior of their peers.

      2. For another week or more, weigh the amount of scrap paper.

      3. Interview other teachers to find out if they can notice a conscious attempt on the part of students to use paper wisely.
<table>
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<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested Learning</th>
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</thead>
<tbody>
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...
### BEHAVIORAL OBJECTIVES

<table>
<thead>
<tr>
<th>Cognitive: Children will write two (or more) descriptive paragraphs - at least one factual and one imaginative - showing changes in environment affected by man.</th>
<th>SUGGESTED LEARNING EXPERIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective: The child will choose something which has been changed since white man came to Wisconsin. He will offer reasons why this is good or bad.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>Skills to be Learned</td>
<td>II. Outside activity</td>
</tr>
<tr>
<td>Writing of descriptions</td>
<td>1. Use language texts - sections on writing descriptions - factual and imaginative and writing paragraphs.</td>
</tr>
<tr>
<td>Writing of paragraphs</td>
<td>2. Using social studies texts, books about Wisconsin history, Wisconsin magazines, etc., to find out what Wisconsin was like before white men arrived.</td>
</tr>
<tr>
<td>Observations</td>
<td>3. Write then and now descriptive paragraphs showing how man has affected his environment in Wisconsin.</td>
</tr>
<tr>
<td>Making comparisons</td>
<td>a. Factual paragraph</td>
</tr>
<tr>
<td>Expressing reactions or feelings clearly</td>
<td>b. Imaginative paragraph</td>
</tr>
<tr>
<td>Sentence structure</td>
<td>4. Observe one thing observed on field trip or from children's previous experience and describe it in a descriptive paragraph.</td>
</tr>
<tr>
<td>Spelling</td>
<td>a. Factually</td>
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<td></td>
<td>b. Imaginatively - expressing personal feeling or reaction to thing observed.</td>
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</tbody>
</table>
Several acts, duplicated led, produce significant alterations over time. Children will improve more.

**Problem Orientation**

**Land Use**

**Grade**

**Subject**

**Descriptive Writing**

**Discipline Area**

**Language Arts**

<table>
<thead>
<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>1. Use language texts-sections on writing descriptions-factual and imaginative and writing paragraphs.</td>
</tr>
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<td>b. Imaginatively-expressing personal feeling or reaction to thing observed.</td>
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</tbody>
</table>

II. Outside Resource and Community Activities

1. Field trip to observe things in our environment which makes it more beautiful and/or uglier. Keep notes and/or take pictures.

Learned

Descriptions paragraphs

Comparisons

Reactions or thoughts

Observe one thing observed on field trip or from children's previous experience and describe it in a descriptive paragraph. a. Factually

b. Imaginatively-expressing personal feeling or reaction to thing observed.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additonal Suggested Learning Activities</th>
</tr>
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<tbody>
<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>Language textbook:</td>
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<tr>
<td><em>Our Language Today</em> 4, pp. 168-174, American Book Company</td>
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<td>Books about Wisconsin:</td>
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<tr>
<td><em>Badger Tales</em>, Lyons &amp; Cornahan, 1940.</td>
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<td>Magazines about Wisconsin:</td>
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<tr>
<td><em>Badger History</em></td>
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<tr>
<td><em>Wisconsin Tales and Trails</em></td>
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<td><strong>Audio-Visual:</strong></td>
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<td>Pictures of Wisconsin before coming of white man.</td>
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<td>Pictures of present day Wisconsin.</td>
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<td>Wisconsin travel brochures</td>
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<td>Camera and film</td>
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<td><strong>Community:</strong></td>
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</tbody>
</table>
Cognitive: Each child will express his opinions about industrialized neighborhood situations in a letter written in correct form to editor, business or Congressman.

Affective: Each child will choose an area the class visited or another one he prefers & list the misuse or the good use of the natural resources.

Skills to be Learned
- Observation
- Analyzing
- Correct letter form
- Expressing ideas & feelings in clear
- Courteous language

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

II. Outside Community
   A. Outside
      1. Field trip to industrialized neighborhood
      2. Class trip to industrialized neighborhood
      3. Write & express ideas & feelings
      4. Write & express ideas & feelings
      5. Write & express ideas & feelings
Ownership must be stewardship and not be crouched upon or violate the right of others.

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>A child will learn:</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>- Expressions about the neighborhood</td>
<td>- II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td>- Letters to principal of form</td>
<td>- A. Outside classroom</td>
</tr>
<tr>
<td>- Letters to editor explaining what was found &amp; why</td>
<td>1. Field trip to study an industrialized neighborhood</td>
</tr>
<tr>
<td>- Letters to companies explaining what was found &amp; asking them what is</td>
<td>for signs of pollution or misuse of natural</td>
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<tr>
<td>being done about it.</td>
<td>resources.</td>
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<tr>
<td>- Letters to State Congressmen for any information on State</td>
<td>2. Class discussions on findings &amp; possible reasons for</td>
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<td>pending bills concerned with situation discovered.</td>
<td>them.</td>
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<td>3. Write letters to editor explaining what was found &amp;</td>
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<td>child’s reaction to it.</td>
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<td>4. Write letters to companies explaining what was found</td>
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<td>&amp; asking them what is being done about it.</td>
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<td>5. Write letters to State Congressmen for any information on State pending bills concerned with situation discovered.</td>
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<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggestions</td>
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<td><strong>Publications:</strong></td>
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<td>Language textbook - Unit on correct letter form</td>
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<td>Science and/or social studies text - How man has changed environment</td>
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<td><strong>Audio-Visual:</strong></td>
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<td>List of names &amp; addresses of newspapers, businesses concerned, Congressmen, etc.</td>
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<td><strong>Community:</strong></td>
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<td>Local business leader</td>
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<td>Farmer</td>
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<td>City official</td>
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<td>These can all be interviewed by students or they can give a talk to the class</td>
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</table>
In commenting on each episode used in your class, you may use this format. Please feel free to adapt it and add more pages, make comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
    (specific suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

On each episode used in your class, you may wish to duplicate this suggested form. Feel free to adapt it and add more pages. Let us know all your critiques and suggestions and comments.

Objectives:


Learning Experiences:


Community Activities:


Resource & Reference Materials:

Suggestions & Comments)
A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA  Language Arts    GRADE  5

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin  54301
(414) 432-4338

Robert Warp
Robert Kell
George Howi
INSTRUCTION - CURRICULUM - ENVIRONMENT

PROGRAM FOR ENVIRONMENTAL EDUCATION

Language Arts GRADE 5

Title III E.S.E.A.

in CESA's 3-8-9

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

Wisconsin 54301
PREFACE

If you wish to excite students about their environment, help is ready. To do so, a project of over a hundred teachers, year long meetings, a summer workshop, university ecologists, this guide means realistic, developed aid for you. Please note that the efforts which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are designed—after a few weeks of a year or two—suggestions. Each page or episode offers suggestions. Since you know your students best, adapt, adopt, or use. By design, the range of suggestions is wide; your possibilities allow you to explore.

2. Now we urge that you try the episodes and suggested learning experiences. The reasons are simple. No guide has all the answers and no curriculum unless viewed in the context of your classroom situation. Thus, before you give it a triple reading, check over the resources listed, make mental and personal prime your students, and seek help. The Project personnel and teachers in the acknowledgement page stand ready to aid your efforts. Feel free to ask the Project personnel for any help, visit. Phone 432-4338.

3. Check often the Project ICE Bibliography in your school library for available Center materials. Please offer suggestions, comments, or advice—papers or in person—at any service may grow. Let’s help each other.

4. Involve yourself with the guide by reacting to it with scratch ideas, no suggestions on the episode pages or use the attached evaluation format, collected in late May next year and will be used in our revisions. We select reactions and suggestions—negative and positive. Please note that some ideas in the episodes may refer to specific, local community resources or conditions, individual school districts and teachers will have to adopt local substitutes. A list of terms pertinent to the episodes is below.

5. Ecologists and other experts have simplified the issue—survival—yours, Creation’s beauty and complexity—often noted as the work of a genius—wished and human energy to save. A year’s work by a hundred of your fellow teachers gesture. Without you, their work will crumble, and so might we all—let us live to think, feel, and act in harmony with our world.

Editorial Notes:

1. Cognitive means a measurable mental skill, ability, or process based on reasoning.
2. Affective refers to student attitudes, values, and feelings.
3. APWI means Acceptable Performance Will Include (labels a cognitive or performance attribute).
4. EPA - Environmental Problem Area.
PREFACE

... students about their environment, help is ready. Thanks to the efforts of others, year long meetings, a summer workshop, university consultants and means realistic, developed aid for you. Please note the following ideas teachers in writing and editing this guide.

Elementary in nature and the episodes are designed--at appropriate instan-

ting logical course content.

The offers suggestions. Since you know your students best, you decide what use. By design, the range of suggestions is wide; your chances for experi-

tation are even wider. Many episodes are self-contained, others open-ended, still ed in part or developed more keenly over a few weeks. These built-in

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You try the episodes and suggested learning experiences but please pre-

are simple. No guide has all the answers and no curriculum will work in the context of your classroom situation. Thus, before trying an episode, reading, check over the resources listed, make mental and actual notes, and seek help. The Project personnel and teachers listed on the ack-

stand ready to aid your efforts. Feel free to ask their help in pre-planning.

The Materials Center serves all CESA 3, 8, and 9 area schools--public and

send available materials pre-paid. Call for any help, materials, or to 338.

Please offer suggestions, comments, or advice--at any time--so that this

Let's help each other.

Read the guide by reacting to it with scratch ideas, notes, and extended episode pages or use the attached evaluation format, which will be col-

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d school districts and teachers will have to adopt local or available sub-

terms pertinent to the episodes is below.

Experts have simplified the issue--survival--yours, mine, our students, and complexity--often noted as the work of a genius--will take our genius to save. A year's work by a hundred of your fellow teachers is a saving you, their work will crumble, and so might we all--literally. Instead, feel, and act in harmony with our world.

Editorial Board

... mental skill, ability, or process based on factual data. to student attitudes, values, and feelings.

able Performance Will Include (labels a cognitive or mental performance.)
ACKNOWLEDGEMENTS: The following teachers and consultants participated in the development of the Supplementary Environmental Education Guide:

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John Cowling, Niagara
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Robert Dickinson, Oconto
Ann Fuhrmann, Marinette
Lillian Goddard, Coleman
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Ronald Conradt, Shiocton
Lee Halberg, Appleton
Ronald Hammond, Hortonville
Jerome Hennes, Little Chute
Barbara Huth, Menasha
Darrell Johnson, Hortonville
Bernadyne King, Neenah
Harold Lindhorst, St. Martin (L)
John Little, Winneconne
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William Schaff, St. Joseph
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Carolyn Shills, New London
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Clarence Trentlage, Freedom
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Dennis Br
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Gloria Morgan, Linsmeier Private
George Pederson, Southern Door
Alan Schuh, Pulaski
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John Torgerson, Kewaunee
Benjamin Roloff, Howard-Suamico
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Emmajean Harmann, Sevastopol
Ray Gantenbein, Green Bay
David Bartz, Sturgeon Bay
John Hussey, Green Bay
Sister Barbara, St. Bernard

Robert Cook, UWGB
Dennis Bryan, UWGB
<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING E</th>
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<tbody>
<tr>
<td>Cognitive: Students through creative writing will state the important effects of the sun on nature. Affective: Children will defend the fact that things on the earth are dependent upon the sun's energy.</td>
<td>I. Student-Centered in class activity A. Pupil writing as Mr. Sun: &quot;How do I effect things on earth from sunrise to sunset.&quot; 1. As the sun awakes and arises in the morning how does it effect a leaf, a child, a house, the grass, the air: at noon and at evening are the effects the same or does it change? B. Plants in room 1. One grown with the sun and the other without the sun.</td>
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</table>

Skills to be Learned
Writing skills:
  - Punctuation
  - Capitalization
  - Etc.
  - Creative imagination
sun, the basic source

converts into a form all

use for life pro-
cesses.

Discipline Area Language Arts

Subject Creative Writing

Problem Orientation Energy Grade 5

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Pupil writing as Mr. Sun:
"How do I effect things on earth from sunrise to sunset."

1. As the sun awakes and arises in the morning how does it effect a leaf, a child, a house, the grass, the air: at noon and at evening are the effects the same or does it change?

B. Plants in room

1. One grown with the sun and the other without the sun.

II. Outside Resource and Community Activities
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested</th>
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<tbody>
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<td><strong>Publications:</strong></td>
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<td>Mr. Sun, Bell Telephone (1 hr)</td>
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<td><strong>Audio-Visual:</strong></td>
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<td>Fosters - bright colors</td>
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<td>Appropriate music - suggesting</td>
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<td>sunrise-sunset</td>
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<td>Music teacher and librarian</td>
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<td>could offer suggestions</td>
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<td><strong>Community:</strong></td>
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<td>Local photographer could</td>
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</tr>
<tr>
<td>talk about the sun - its</td>
<td></td>
</tr>
<tr>
<td>impact on camera shots,</td>
<td></td>
</tr>
<tr>
<td>photo-effects, etc.</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>(1 hr.)</td>
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</tr>
</tbody>
</table>

Continued and Additional Suggested Learning Experiences.
C 2. All living organisms interact among themselves and their environment, Discipline Area Language, Subject Vocabulary, Problem Orientation Ecology.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive: Students will accurately match ecological terms &amp; meanings with 90% accuracy.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>Affective: Student suggests ecological words and their meanings.</td>
<td>A. Teacher and students draw up a list of ecological words. (Suggested list on back)</td>
</tr>
</tbody>
</table>

Skills to be Learned

Environmental words and their meanings.

Using these words.

B. Together teacher and students look up definitions of words and discuss how they are used. If not completed in class, students will finish list on their own.

C. Review all words and their definitions. Teacher gives matching test.

D. The student looks for examples of these ecological terms in the home environment and reports the results to the class.
Learning organisms interact

Intricate unit called an __________ Subject

Vocabulary

Problem Orientation ___________ Ecosystem ___________ Grade 5

GENERAL OBJECTIVES

Students will learn ecological 

words with 90%

Student suggest ecological 

words

Learned ecological words and 

terms.

I. SUGGESTED LEARNING EXPERIENCES

A. Teacher and students draw up a list of ecological words. (Suggested list on back)

B. Together teacher and students look up definitions of words and discuss how they are used. If not completed in class, students will finish list on their own.

C. Review all words and their definitions. Teacher gives matching test.

D. The student looks for examples of these ecological terms in the home environment and reports the results to the class.

II. Outside Resource and Community Activities

A. Find use of words in newspapers, ads, and speeches.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td>Possible Words:</td>
</tr>
<tr>
<td></td>
<td>1. Environment</td>
</tr>
<tr>
<td></td>
<td>2. Survival</td>
</tr>
<tr>
<td></td>
<td>3. Ecology</td>
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<tr>
<td></td>
<td>4. Energy</td>
</tr>
<tr>
<td></td>
<td>5. Population</td>
</tr>
<tr>
<td></td>
<td>6. Culture</td>
</tr>
<tr>
<td></td>
<td>7. Value</td>
</tr>
<tr>
<td></td>
<td>8. Economic</td>
</tr>
<tr>
<td></td>
<td>9. Stewardship</td>
</tr>
<tr>
<td></td>
<td>10. Inherit</td>
</tr>
<tr>
<td></td>
<td>11. Deterioration</td>
</tr>
<tr>
<td></td>
<td>12. Interdependent</td>
</tr>
<tr>
<td></td>
<td>13. Interaction</td>
</tr>
<tr>
<td></td>
<td>14. Limitless</td>
</tr>
<tr>
<td></td>
<td>15. Distribute</td>
</tr>
<tr>
<td></td>
<td>16. Photosynthesis</td>
</tr>
<tr>
<td></td>
<td>17. Capacity</td>
</tr>
<tr>
<td></td>
<td>18. Manipulate</td>
</tr>
</tbody>
</table>

**Audio-Visual:**
Non-verbal activities to reinforce abstractions—posters, collage, pantomine, skits, dance.

**Oral synonyms game.**

**Illustrative:**
Free educational materials from:
- Local businesses
- Travel agencies
- DNR
- State Historical Society
- National Wildlife Federation
<table>
<thead>
<tr>
<th>Environment Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Possible Words:</td>
<td></td>
</tr>
<tr>
<td>1. Environment</td>
<td>19. Violate</td>
</tr>
<tr>
<td>2. Survival</td>
<td>20. Erosion</td>
</tr>
<tr>
<td>4. Energy</td>
<td>22. Pesticide</td>
</tr>
<tr>
<td>5. Population</td>
<td>23. Odor</td>
</tr>
<tr>
<td>6. Culture</td>
<td>24. Exhaust</td>
</tr>
<tr>
<td>7. Value</td>
<td>25. Sewage</td>
</tr>
<tr>
<td>9. Stewardship</td>
<td>27. Incinerate</td>
</tr>
<tr>
<td>10. Inherit</td>
<td>28. Silt</td>
</tr>
<tr>
<td>11. Deterioration</td>
<td>29. Drainage</td>
</tr>
<tr>
<td>12. Interdependent</td>
<td>30. Litter</td>
</tr>
<tr>
<td>14. Limitless</td>
<td>32. Detergent</td>
</tr>
<tr>
<td>15. Distribute</td>
<td>33. Decay</td>
</tr>
<tr>
<td>16. Photosynthesis</td>
<td>34. Bacteria</td>
</tr>
<tr>
<td>17. Capacity</td>
<td>35. Aroma</td>
</tr>
<tr>
<td>18. Manipulate</td>
<td></td>
</tr>
</tbody>
</table>
**BEHAVIORAL OBJECTIVES**

<table>
<thead>
<tr>
<th>Cognitive: Students will observe how a sufficient supply of oxygen is necessary for fish to survive. Keep a daily log &amp; evaluate it.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective: The student supports that oxygen is a necessity for life in water; there is a limit to number of fish per square inch of water.</td>
</tr>
</tbody>
</table>

**Skills to be Learned**
- Notetaking
- Observing
- Setting up physical apparatus
- Evaluating data

**SUGGESTED LEARNING EXPERIENCE**

I. Student-Centered in class activity
1. Read about how to keep (gold)fish in school - upkeep, food.
2. Stock a fishbowl with one or two fish; then add one more at a time (several days apart) until it is noticeable that the fish are searching for oxygen by their continued rising to the top.
3. Keep a daily account (on critical days perhaps an hourly log) on reaction of fish, if notices of lack of oxygen are evident.

Discipline Area: Lang
Subject: Log
Problem Orientation: Carry

ESBA Title III - 59-70-0135-1
Project I-C-E
Environmental factors are limiting the growth of organisms living in aquatic environments, thus, each environment has a carrying capacity.

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
</table>
| Students will learn that sufficient oxygen is necessary for life in aquatic environments as a limit has been reached per liter of water. | I. Student-Centered in class activity  
1. Read about how to keep (gold)fish in school - upkeep, food.  
2. Stock a fishbowl with one or two fish; then add one more at a time (several days apart) until it is noticeable that the fish are searching for oxygen by their continued rising to the top.  
3. Keep a daily account (on critical days perhaps an hourly log) on reaction of fish, if notices of lack of oxygen are evident.  |
<p>| II. Outside Resource and Community Activities |</p>
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
</tr>
<tr>
<td>Fish-keeping book</td>
<td></td>
</tr>
</tbody>
</table>

**Audio-Visual:**

**Community:**

Visits by:
- Pet shop owner
- Fish hatchery representative
- Biology teacher
<table>
<thead>
<tr>
<th>Reference Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

[159]
An adequate supply of pure water is essential for life.

**Behavioral Objectives**

| Cognitive: Using the first person, groups of 2 or 3 students will write their feelings of Mr. Water in its different forms. |
| Affective: Students will support that water in its many different forms is essential for life. |

**Skills to be Learned:**
- First-person creative writing
- Research

**Suggested Learning Activities:**

1. Student-Centered in class activity

   1. Class discusses water cycle (view film if handy). There is practically the same amount of water on the earth now as there was thousands of years ago.
   2. Talk about different forms of Mr. Water... i.e., clouds, fog, dew, snow, rain, hail, ice, aquifer.
   3. Class groups of 2 or 3 choose a water form and research their form of Mr. Water and write in first-person, their feelings of Mr. Water.

   **Suggestions:**
   Make illustrations to accompany their story and display them.
Adequate supply of pure water is essential for life.

**Discipline Area** | **Language Arts**
---|---
**Subject** | **Language Arts**

**Problem Orientation** | **E.P.A. Water** | **Grade** | 5
---|---|---|---

**Expected Outcomes:**
- Understanding the importance of water for life.
- Awareness of water cycle and its forms.
- Ability to research and write about a chosen water form.

**Suggested Learning Experiences:**
1. **Student-Centered Learning Activity**
   - Class discusses water cycle (view film if handy). There is practically the same amount of water on the earth now as there was thousands of years ago.
   - Talk about different forms of water... i.e., clouds, fog, dew, snow, rain, hail, ice, aquifer.

2. **Outside Resource and Community Activities**
   - Class groups of 2 or 3 choose a water form and research their form of water. Write in first-person, their feelings of water.

**Suggestions:**
- Make illustrations to accompany their story and display them.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
</tr>
<tr>
<td>Busy Water, Irma Simonton Black,</td>
<td></td>
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<tr>
<td>E 551.4  (water cycle described)</td>
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<tr>
<td>B56</td>
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<tr>
<td>Wonders of Snow and Ice,</td>
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<tr>
<td>Christie McFall</td>
<td></td>
</tr>
<tr>
<td>551.5</td>
<td></td>
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<tr>
<td>M163</td>
<td></td>
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<tr>
<td>Water for Your Community,</td>
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<tr>
<td>Edward Radisuer</td>
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<tr>
<td>628.1</td>
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<td>B 119</td>
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<tr>
<td>Dittoed excerpts from Rachel</td>
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<tr>
<td>Carson's <em>The Sea Around Us</em></td>
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<tr>
<td>(some interesting sections</td>
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<tr>
<td>about origins and chemistry of</td>
<td></td>
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<tr>
<td>water - non-technical)</td>
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<tr>
<td>Annotated Checklist of 200 Short</td>
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<tr>
<td>Films for Writing Classes</td>
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<tr>
<td>Illinois Assn. of Teachers</td>
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<tr>
<td>of English, Urbana, Ill. 35¢</td>
<td></td>
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<tr>
<td><strong>Audio-Visual</strong></td>
<td></td>
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<tr>
<td>&quot;Waters From the Mountain,&quot;16mm.</td>
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<tr>
<td>sound, 20 min. (snow)</td>
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<tr>
<td><strong>Community:</strong></td>
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<tr>
<td>Continued and Additional Suggested Learning Experiences</td>
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<tr>
<td>List of Materials</td>
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<td>1. 35c</td>
<td></td>
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<tr>
<td>2. 200 Short Stories</td>
<td></td>
</tr>
<tr>
<td>3. History of English, &quot;16th Century&quot;</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The table provided includes references to materials and activities that are part of the learning experience. The specific details of these resources are not visible in the image.
C 5. An adequate supply of clear air is essential because most organisms depend on respiration to supply the oxygen needed to release the energy in their food.

BETHEAVIORAL OBJECTIVES

Cognitive: Students will give campaign speech citing his solutions to air pollution problem.

Affective: Through campaigning, the students will challenge the political complexity of an environmental issue.

Skills to be Learned

Organization and compiling a speech.
Coral presentation as competition.
Techniques of balloting and voting.

SUGGESTED LEARNING ACTIVITIES

1. Conduct speech contest on "I am against air pollution because...When elected I will...(to stop air pollution)"
2. Have the children pretend they are running for office (as mayor or other local office) and they must convince their audience that "I am against air pollution because,...and when I am elected I will...(do what to stop air pollution)"

After speeches the class will cast ballots and vote for their best candidate.
3. Winning candidate might give his report to other classes.

SUGGESTIONS FOR PREPARATION:

4. Tape speeches to be replayed by individuals for self exam of speech skills or judged by local (cont.)
A late supply of clean air is because most organisms depend on to supply the oxygen to release the energy in their cellular respiration.

**Discipline Area**  
**Language Arts**

**Subject**  
**Speech**

**Problem Orientation**  
E.P.A. Air

**Grade**  
5

---

**SUGGESTED LEARNING EXPERIENCES**

1. **Student-Centered in class activity**
   - Conduct speech contest on "I am against air pollution because...When elected I will...(to stop air pollution)"
   - Have the children pretend they are running for office (as mayor or other local office) and they must convince their audience that "I am against air pollution because...and when I am elected I will...(do what to stop air pollution)"

   After speeches the class will cast ballots and vote for their best candidate.

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**SUGGESTIONS FOR PREPARATION:**

4. Tape speeches to be replayed by individuals for self exam of speech skills or judged by local (cont.)
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td>I. (cont.)</td>
</tr>
<tr>
<td>Vital speeches-periodical excerpts or dittoed parts of speeches dealing with ecology.</td>
<td>people.</td>
</tr>
<tr>
<td>HEW - reports, speeches by Sec. Udall.</td>
<td></td>
</tr>
<tr>
<td>Silent Spring (excerpts)</td>
<td></td>
</tr>
<tr>
<td>Robert Carson</td>
<td></td>
</tr>
<tr>
<td>Thirty Basic Speech Experiences - Clark Publishing Co, Pokatello, Idaho</td>
<td></td>
</tr>
<tr>
<td>4-H Form for judging speaking contests - 4-H Soil and Water Conservation.</td>
<td></td>
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</tbody>
</table>

Audio-Visual:

Community:
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excerpts</td>
<td>I. (cont.)</td>
</tr>
<tr>
<td>by Sec.</td>
<td>people.</td>
</tr>
</tbody>
</table>

no, taking
C 6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING EX</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive:</strong> By the means of a diary, the student will record their observation of birds &amp; related conditions on given days.</td>
<td></td>
</tr>
<tr>
<td><strong>Affective:</strong> Through the gathering of information and recording of data, the student will suggest reasons for the varying number &amp; species of birds per day.</td>
<td></td>
</tr>
</tbody>
</table>

**Skills to be Learned**
- Observing birds
- Weather
- Seasons
- Writing a first-person diary

**Discipline Area** Language
**Subject** Diaries
**Problem Orientation** Resolved Learning Experience
**Student-Centered in Class Activity**
1. After outside observations, the children come back inside to write their observations in a first-person diary (first person diary may have to be explained to class by teacher—with examples.) The diary should consist of an 8-page booklet—left half of page for diary & right half for pictures of birds observed that day. (The first day may take more time to construct a booklet—could use a regular 8 1/2 x 11" sheet of paper folded in half for one day's work. The diary should be a personal possession and neither teacher nor other students may read it if so wished by writer.)
Discipline Area | Language Arts
--- | ---
Subject | Diary
Problem Orientation | Natural Resources
Grade | 5

**OBJECTIVES**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. After outside observations, the children come back inside to write their observations in a first-person diary (first person diary may have to be explained to class by teacher—with examples.) The diary should consist of an 8-page booklet—left half of page for diary &amp; right half for pictures of birds observed that day. (The first day may take more time to construct a booklet—could use a regular 8 1/2 x 11&quot; sheet of paper folded in half for one day's work. The diary should be a personal possession and neither teacher nor other students may read it if so wished by writer.</td>
<td>1. Teacher explain that this is a project that will take place on the Mondays of April &amp; May (day or months may change to suit class schedule.) The first fifteen minutes the children will go outside looking for birds (Their color, sounds, habits, name) and also note any significant weather conditions that might explain why there are so many birds or the lack of birds on each particular Monday. The children may wish to take notes while outside if they don't think they can remember all the information.</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggested Learning Activities</td>
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<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>Library books on birds</td>
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<tr>
<td>Hooked on Books, Dr. Foder,</td>
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<tr>
<td>chapter on &quot;The Journal&quot;</td>
<td></td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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<tr>
<td>Bird chart</td>
<td></td>
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<tr>
<td>Tapes of bird songs - National</td>
<td></td>
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<tr>
<td>Wildlife or Audubon</td>
<td></td>
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<tr>
<td><strong>Community:</strong></td>
<td></td>
</tr>
<tr>
<td>Science Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
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<tr>
<td>videos, Fodder,</td>
<td>&quot;Fodder, Journal&quot;).</td>
</tr>
<tr>
<td>National</td>
<td></td>
</tr>
</tbody>
</table>
7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Through use of film or field trip, students write their impressions on how highways change the use of the land.

**Affective:** Students dispute the question of the basic necessity of good land use.

**SUGGESTED LEARNING EXPERIENCE**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
</tr>
</thead>
</table>

**Skills to be Learned**
- Expository writing
- Questioning
- Discussion
- Draw conclusions

**II. Outside Communication**

- A. Through (either of film people, or local people, etc.)
- B. With write these
- C. Each improve class come
- D. Each come concl
such as facilitating transportation, conditions, population growth, Discipline Area Language Arts

Expository Writing

Problem Orientation Land Use Grade 5

[Table]

<table>
<thead>
<tr>
<th>ORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
<td>II. Outside Resource and Community Activities</td>
</tr>
</tbody>
</table>

A. Introduction of land use (either for highway exchange or rural work land) by means of film Highways are For People or by a field trip to local express exchange to see enormous amount of land used for highways.

B. Without discussion, students write their impressions of these types of land use.

C. Each student reads his impression out loud. Rest of class asks questions or adds comments.

D. Class tries to summarize or come up with a general conclusion of their impression.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested Leaders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publications:</td>
<td></td>
</tr>
<tr>
<td>National Safety Council, AAA</td>
<td></td>
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<tr>
<td>Audio-Visual:</td>
<td></td>
</tr>
<tr>
<td>Film:</td>
<td></td>
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<tr>
<td>Highways Are For People, 1968,</td>
<td></td>
</tr>
<tr>
<td>16 mm, Sound, 27 min.,</td>
<td></td>
</tr>
<tr>
<td>Federal Highway Administration</td>
<td></td>
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<tr>
<td>Community:</td>
<td></td>
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<tr>
<td>Road Commissioner or good</td>
<td></td>
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<tr>
<td>representative</td>
<td></td>
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</tbody>
</table>
Materials

Continued and Additional Suggested Learning Experiences
8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

- **Cognitive:** Students will list in order the food chain of an animal and describe the effect that takes place if this chain is broken.
- **Affective:** The child submits evidence that interference with any single segment of any chain of living things can cause problems.
- **Skills to be Learned**
  - Logical thinking
  - Thinking in sequence
  - Cause & effect

**SUGGESTED LEARNING EXPERIENCE**

1. **Student-Centered in class activity**
   - Teacher introduces the lesson quoting John Muir: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." natural resources.
   - Children think, then write down the chain of dependency.
   - Class discussion to agree or disagree with John Muir.
   - Teacher reads part of America's Endangered Wildlife to the class.
OBJECTIVE
Students will learn the factors that determine status of economic, social, and environmental aspects and attitudes towards that environment.

SUGGESTED LEARNING EXPERIENCES

<table>
<thead>
<tr>
<th>Grade</th>
<th>Problem Orientation</th>
<th>Discipline Area</th>
<th>Language Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Food Chain</td>
<td>Language Arts</td>
<td>Reading</td>
</tr>
</tbody>
</table>

1. **Student-Centered in class activity**
   - Teacher introduces the lesson quoting John Muir: "When we try to pick out anything by itself, we find it hitched to everything else in the universe." natural resources.
   - Children think, then write down the chain of dependency.
   - Class discussion to agree or disagree with John Muir.
   - Teacher reads part of America's Endangered Wildlife to the class.

2. **Outside Resource and Community Activities**
   - Use the out-of-doors or go to school windows to observe the chain of dependency. Ex. - The killing off of the fox - What happens to the rabbits? Porcupines? Squirrels? Mice? Shrews? etc.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Publications: America's Endangered Wildlife by George Laycock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community: Wildlife Federation (Publications)</td>
<td>National Audubon Society</td>
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Audubon Visual Chain chart
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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</table>

169
C 8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

| Cognitive: | Given a wildlife stamp the students through creative writing, will express their ideas on a pollution free environment as is illustrated in the stamps. |
| Affective: | The student will volunteer to express his creative ideas about the stamps. |

**Skills to be Learned**

Creative writing

**SUGGESTED LEARNG**

1. **Student-Centered in class activity**
   A. Teacher or pupil places conservation stamps (National Wildlife) on front table.
   1. Each child chooses an one of the group.
   2. Child pastes this on writing or composition paper.
   3. Teacher suggests the children to now write a poem, paragraph, story or just write statements about their stamp.
   4. Display these papers.
Given a wildlife students through writing, will their ideas on a free environment demonstrated in the

The student will to express his ideas about the

<table>
<thead>
<tr>
<th>MORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
<td>II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td>A. Teacher or pupil places conservation stamps (National Wildlife) on front table.</td>
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<td>Continued and Additional Suggestions</td>
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<td><strong>Publications:</strong></td>
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<td>Audio-Visual:</td>
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<td>National Wildlife Stamp or any</td>
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<td>colorful stickers</td>
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<tr>
<td>Start a picture library and thus</td>
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<tr>
<td>involve students</td>
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<tr>
<td>Community:</td>
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<td>Audubon Society</td>
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<td>National Geographics</td>
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<td>Wis. Historical Society</td>
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<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
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</table>

or any
and thus
Man has the ability to manage, manipulate, and change his environment.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** By writing & presenting a speech for a radio presentation, the students will acknowledge their part in managing their environment.

**Affective:** The students will promote individual & community involvement in environmental problems by presenting a radio broadcast.

**Skills to be Learned**
- Speech writing
- Tape presentation
- Poetry writing (to song)
- Feeling of pride in their community

**SUGGESTED LEARNING ACTIVITY**

1. **Student-Centered in class activity**
   - **A. Classroom activity**
     1. Teacher & students plan what can be presented as a radio environment program:
        a. Local problem areas
        b. Ways children of all ages can get involved
        c. Community involvement
     2. Each student writes his view of one of the above topics to be used as a speech.
     3. Speeches are taped (to prevent individual favoritism) & then listened to by class to choose the ones to be used as the radio broadcast.
     4. Students practice presentations on tapes.
     5. Possibly, the children could write words to a familiar tune to open & close the program.
has the ability to manage, regulate, and change his environment.

**Discipline Area**: Language Arts

**Subject**: Speech Writing & presentation

**Problem Orientation**: Natural

**Problem Orientation**: Resources

**Grade**: 5

**AVIOrAL OBJECTIVES**

**I.** By writing & presenting a speech for presentation, the student will acknowledge the value in managing environmental problems by being a radio broadcaster.

**II.** The students promote individual & group involvement in environmental problems by being a radio broadcaster.

**To be Learned**

- Writing
- Presentation
- Writing (to song)
- Pride in community

**SUGGESTED LEARNING EXPERIENCES**

**I. Student-Centered in class activity**

**A. Classroom activity**

1. Teacher & students plan what can be presented as a radio environment program:
   a. Local problem areas
   b. Ways children of all ages can get involved
   c. Community involvement

2. Each student writes his view of one of the above topics to be used as a speech.

3. Speeches are taped (to prevent individual favoritism) & then listened to by class to choose the ones to be used as the radio broadcast.

4. Students practice presentations on tapes.

5. Possibly, the children could write words to a familiar tune to open & close the program.

**II. Outside Resource and Community Activities**

**A. Other activity**

1. Have some of the students contact the radio station to see if they can come to school or if they may go to the studio.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested Literature</th>
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</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>30 Basic Speech Experiences,</td>
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<td>Clark Publishing Co.</td>
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<td><strong>Audio-Visual:</strong></td>
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<td><strong>Community:</strong></td>
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<tr>
<td>Local radio announcer</td>
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<tr>
<td>Continued and Additional Suggested Learning Experiences</td>
<td></td>
</tr>
</tbody>
</table>
BEHAVIORAL OBJECTIVES

Cognitive: By writing a before and after account of a forest logging operation, the student will realize that a short-time gain may produce a long-term environmental loss.

Affective: Students will compare short-term gains and long-term effects of forest management.

Skills to be Learned
Discussion
Writing
Making comparisons
Skill of foresight

SUGGESTED LEARNING

I. Student-Centered in class activity
A. Classroom

1. Teacher & students discuss a hypothetical situation where maple lumber is suddenly in great demand (for some product). I, as an owner of a large maple forest, have a chance to make a great deal of money if I harvest all the maple trees in my woods. My neighbors are convinced of the same thing, so we contract a logging firm to cut all our trees.

2. Class discussion as to what may be the implications of such a procedure.

3. Write a "before and after" account of the area.

4. The students may want to sketch a view of the area.
-term economic gains may

long-term environmental

Discipline Area Language Arts

Subject Writing

Resource Problem Orientation Usage Grade 5

ORAL OBJECTIVES

By writing a
after account of

logging operation,

will realize

short-term gain may

long-term

loss.

Students will

short-term gains

long-term effects of

management.

What is Learned

Comparisons

Foresight

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Classroom
      1. Teacher & students discuss
         a hypothetical situation
         where maple lumber is suddenly
         in great demand (for some new
         product). I, as an owner of a
         large maple forest, have a
         chance to make a great deal of
         money if I harvest all the
         maple trees in my woods. My
         neighbors are convinced of the
         same thing, so we contract a
         logging firm to cut all our
         trees.
      2. Class discussion as to what
         may be the implications of
         such a procedure.
      3. Write a "before and after"
         account of the area.
      4. The students may want to draw
         a sketch of "before and after"
         view of the area.

II. Outside Resource and Community Activities
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<td>Conservation, Nat'l Wildlife</td>
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<td>College of Agriculture bulletins,</td>
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<td>County Forester Office</td>
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<tr>
<td><strong>Auditory:</strong></td>
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<td>Song Library, 8 min,</td>
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<td>Murmurs, Colorado</td>
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<tr>
<td><strong>Filmstrip:</strong></td>
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<td>Brown County Library, Enemies of</td>
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<tr>
<td>the Forest, 634.9</td>
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<tr>
<td>Forest Conservation, 634.9</td>
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<tr>
<td>Our Forest &amp; What they Mean to</td>
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</tr>
<tr>
<td>Us, 634.9</td>
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</tbody>
</table>

**Community:**
11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

**BEHAVIORAL OBJECTIVES**

| Cognitive: Through recognition of air pollution by identification of three air pollutants—by smelling, seeing and feeling—students write their opinions on how these affect them. |
| Affective: The heat and rays of the sun could be stopped by a blanket of earth's pollutants. Students will evaluate how this affects them. |

**Skills to be Learned**
- Writing of opinions
- Discussion

**SUGGESTED LEARNING EXPERIENCE**

| I. Student-Centered in class activity |
| 1. Teacher and students present ideas of sun's rays not being able to reach the earth. Why? |
| 2. Discuss: |
| a. known pollutants—clouds, smog, smoke from chimneys |
| b. how they affect me and my neighbors—sight, smell, health |
| 3. Students will evaluate their thoughts on action and its affects on the sun and us. |
OBJECTIVES

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<td>b. how they affect me and my neighbors - sight, smell, health</td>
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<tr>
<td>3. Write their thoughts on pollution and its affects on the sun and us.</td>
</tr>
</tbody>
</table>

**II. Outside Resource and Community Activities**

1. How clear is the air. Look at pollution and their causes.
2. Interview local factory owner, farmer and Department of Natural Resource representative.
3. Visit fertile and polluted land plots - near school, nearby farm.
<table>
<thead>
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<tbody>
<tr>
<td>Publications:</td>
<td></td>
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</table>

**Audio-Visual:**
- Photographs
- Local slides - student made
- Three dimensional model of land plot - student made and illustrated with graphic-polluted effect.

**Community:**
- Interview local
Continued and Additional Suggested Learning Experiences
12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The students will survey an area, report their findings to the class, discuss the issue and finally list ways to remedy a situation where private ownership should be regarded as a stewardship and should not encroach upon or violate the individual right of others.

**Affective:** Students will share pleasure and satisfaction in resolving an issue after class discussion especially on stewardship.

**Skills to be Learned**
Surveying
Discussion
Listing
Report of statistics

**SUGGESTED LEARNING EXPERIENCE**

I. Student-Centered in class activity
   1. Discussion could follow reports on outside activities to list ways they as fifth graders could remedy this abuse.

II. Outside Community
   1. Students given a city or a city section to study and see how the city is governed.
   2. Students are given a city section of a city and are asked to prepare a report on ways they can improve the city section.
   3. Report of findings is presented to the class.
must be re-

Discipline Area: Language Arts

Subject: Language Arts

Problem Orientation: Conservation

Grade: 5

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   1. Discussion could follow reports on outside activities to list ways they as fifth graders could remedy this abuse.

II. Outside Resource and Community Activities
   1. Students make a survey of lawns in a given area.
   2. Students living in the city could be assigned a given area (for example, a city block) to check to see how many find examples of bicycle abuse of lawns.
   3. Report their findings to the class.
<table>
<thead>
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</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
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</tr>
</tbody>
</table>

**Audio-Visual:**
- Bicycling Riding Film
  - The Day the Bicycle Disappeared
- AAA Foundation for Traffic for Safety (Local automobile clubs)

**Community:**
- Local park commissioner or street commissioner
- "Victims" of bicycle damage (local person on block whose lawn has been damaged.)
<table>
<thead>
<tr>
<th>Reference Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Film: The Disappeared</td>
<td>Traffic for Automobile clubs</td>
</tr>
</tbody>
</table>
| Leader or Teacher | Family damage on block whose aged.)
In commenting on each episode used in your class, you may wish to format. Please feel free to adapt it and add more pages. Let us know comments – negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
    (specific suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

on each episode used in your class, you may wish to duplicate this suggested feel free to adapt it and add more pages. Let us know all your critiques and live and positive.

Objectives

L: E:

E:

L: E:

objected

Learning Experiences

Community Activities

Resource & Reference Materials
(Suggestions & comments)
A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA  Language Arts  GRADE  6

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin  54301
(414) 432-4338
PROGRAM FOR ENVIRONMENTAL EDUCATION

Language Arts GRADE 6

Title III E.S.E.A.

in CESA's 3-8-9

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

Wisconsin 54301
PREFACE

If you wish to excite students about their environment, help is readily available through the Project ICE team, which has directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are designed to plug into existing logical course content.

2. Each page or episode offers suggestions. Since you know your students best, you can adapt, adopt, or use. By design, the range of suggestions is wide. Many episodes are self-contained, others can be changed in part or developed more keenly over a few possibilities allowing you to explore.

3. Now we urge that you try the episodes and suggested learning experiences. The reasons are simple. No guide has all the answers and unless viewed in the context of your classroom situation. Thus, give it a triple reading, check over the resources listed, make prime your students, and seek help. The Project personnel and teacher knowledge page stand ready to aid your efforts. Feel free to...

4. The Project Resource Materials Center serves all CESA 3, 8, and 9 private. We will send available materials pre-paid. Call for an appointment.

5. Check often the Project ICE Bibliography in your school library for Center materials. Please offer suggestions, comments, or advice-service may grow. Let's help each other.

6. Involve yourself with the guide by reacting to it with scratch id suggestions on the episode pages or use the attached evaluation form in late May next year and will be used in our revisions. We seek reactions and suggestions--negative and positive. Please note that in the episodes may refer to specific, local community resources and cases, individual school districts and teachers will have to adopt substitutes. A list of terms pertinent to the episodes is below.

7. Ecologists and other experts have simplified the issue--survival-creation's beauty and complexity--often noted as the work of a ge and human energy to save. A year's work by a hundred of your fellow students may live to think, feel, and act in harmony with our world.

1. Cognitive means a measurable mental skill, ability, or process
2. Affective refers to student attitudes, values, and feelings.
3. APWI means Acceptable Performance Will Include (labels a cognt)
4. EPA - Environmental Problem Area.
PREFACE

To excite students about their environment, help is ready. Thanks to the efforts of teachers, year long meetings, a summer workshop, university consultants and this guide means realistic, developed aid for you. Please note the following ideas of teachers in writing and editing this guide.

As supplementary in nature and the episodes are designed--at appropriate instan-
to existing, logical course content.

The episode offers suggestions. Since you know your students best, you decide what opt, or use. By design, the range of suggestions is wide; your chances for exper-
and usage are even wider. Many episodes are self-contained, others open-ended, still be changed in part or developed more keenly over a few weeks. These built-in s allow you to explore.

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Resource Materials Center serves all CESA 3, 8, and 9 area schools--public and will send available materials pre-paid. Call for any help, materials, or to be 432-4338.

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And other experts have simplified the issue--survival--yours, mine, our students, beauty and complexity--often noted as the work of a genius--will take our genius rgy to save. A year's work by a hundred of your fellow teachers is a saving hout you, their work will crumble, and so might we all--literally. Instead, o think, feel, and act in harmony with our world.

Editorial Board

means a measurable mental skill, ability, or process based on factual data.
refers to student attitudes, values, and feelings.

Acceptable Performance Will Include (labels a cognitive or mental performance.) ronmental Problem Area.
ACKNOWLEDGEMENTS: The following teachers and consultants participated of the Supplementary Environmental Education Guide:

CESA #3
Eugene Anderson, Peshtigo
Laura Berken, Oconto Falls
Willard Collins, Crivitz
John Cowling, Niagara
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Michael Kersten, Suring
Douglas Koch, Cath. Central
Donald Marsh, Bonduel
David Miskulin, Goodman
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Lousene Benter, Gillett

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Ronald Conradt, Shiocton
Lee Halberg, Appleton
Ronald Hammond, Hortonville
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Clarence Trentlage, Freedom
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Charles Richards, UW-Marinette

Ednajean Purcell, OSU
David West, Lawrence U.

Robert Coons
Dennis Br...
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David Bell, Neenah
Louis Below, Clintonville
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John Little, Winneconne
Gordon Rohloff, Oshkosh
William Schaff, St. Joseph
Doris Stehr, Mt. Calvary (L)
Carolyn Shills, New London
Sister Dorothy, Xavier
Clarence Trentlage, Freedom
Mike Hawkins, Xavier
Beth Hawkins, Xavier
Ed Patschke, Menasha
Connie Peterson, St. Martin (L)
Dallas Werner, Kaukauna
Ron Schreier, Omro

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Harold Baeten, St. Norbert
Anthony Balistreri, Howard-Suamico
Lillian Berges, Seymour
Carmella Blecha, Green Bay
Joan Charnetski, Sevastopol
Billie Feichtinger, Green Bay
Rev. B. Frigo, Abbot Pennings
Robert Haen, Luxemburg-Casco
Russ Hanseter, Seymour
Paul Kane, Ashwaubenon
Roy Lukes, Gibraltar
Sister Anna, St. Philips
Jim Maki, Sturgeon Bay
Joyce Mateju, Algoma
Richard Minten, W. DePere
Gloria Morgan, Linsmeier Private
George Pederson, Southern Door
Alan Schuh, Pulaski
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Ruth Windmuller, Green Bay
James Wiza, DePere
John Torgerson, Kewaunee
Benjamin Roloff, Howard-Suamico
Greg Schmitt, Cathedral
John DeWan, Green Bay
Emmajean Harmann, Sevastopol
Ray Gantenbein, Green Bay
David Bartz, Sturgeon Bay
John Hussey, Green Bay
Sister Barbara, St. Bernard

Ednajean Purcell, CSU
David West, Lawrence U.

Robert Cook, UWGB
Dennis Bryan, UWGB
Energy from the sun, the basic source, is converted through plant photosynthesis into a form all living things can use for life processes.

### BEHAVIORAL OBJECTIVES

**Cognitive:** The student will demonstrate the proper letter writing form by writing a letter to Mr. Sun. Students will identify with the life giving forces of the sun. The student will accept the sun's work in spite of man's desires.

**Affective:** Students will identify with the life giving forces of the sun. The student will accept the sun's work in spite of man's desires.

**Skills to be Learned**
- Letter Writing
- Review of Paragraphs
- Punctuation
- Spelling
- Penmanship

### SUGGESTED LEARNING ACTIVITY

1. **Student-Centered in class activity**
   - A. Discuss form for letter writing—(friendly letter)
   - B. Review in group discussion, our dependence on the sun.
   - C. View film or appropriate filmstrip-charts.
   - D. Write a letter to Mr. Sun, choice:
     1. Expressing appreciation of what he does.
     2. Expressing dissatisfaction over disrupted plans.
     3. Relating any experience in which you and the sun were involved.
     4. Requesting a specific kind of weather.
     5. Relating to the sun something you know about him.
the sun, the basic source;
is converted through
thesis into a form all
students can use for life pro-
cesses.

**Problem Orientation**

<table>
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<tr>
<th>Discipline Area</th>
<th>Language Arts</th>
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<tr>
<td>Subject</td>
<td>Writing - Letter Writing</td>
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<td>Grade</td>
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<td>D. Write a letter to Mr. Sun, choice:</td>
</tr>
<tr>
<td>1. Expressing appreciation of what he does.</td>
</tr>
<tr>
<td>2. Expressing dissatisfaction over disrupted plans.</td>
</tr>
<tr>
<td>3. Relating any experience in which you and the sun were involved.</td>
</tr>
<tr>
<td>4. Requesting a specific kind of weather.</td>
</tr>
<tr>
<td>5. Relating to the sun something you know about him.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>II. Outside Resource and Community Activities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Resource and Reference Materials</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td><strong>Publications:</strong></td>
</tr>
<tr>
<td><strong>Books:</strong></td>
</tr>
<tr>
<td>English text for 6th grade,</td>
</tr>
<tr>
<td>for letter form.</td>
</tr>
<tr>
<td>Science texts.</td>
</tr>
<tr>
<td>Encyclopedias.</td>
</tr>
<tr>
<td><strong>Audio-Visual:</strong></td>
</tr>
<tr>
<td><em>Our Mr. Sun</em>, film-Bell Telephone</td>
</tr>
<tr>
<td>Any appropriate filmstrips</td>
</tr>
<tr>
<td>Any appropriate charts</td>
</tr>
<tr>
<td><strong>Community:</strong></td>
</tr>
</tbody>
</table>
Continued and Additional Suggested Learning Experiences
C 2. All living organisms interact among
O themselves and their environment,
N forming an intricate unit called an
C ecosystem.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Through the use of reference skills and critical reading, the child will list 5 different examples in which animals interact among themselves to provide a balance in nature.

**Affective:** Animals are part of a food chain. Critical reading and reference skills enhance avenues to further investigate the interaction of animals to maintain an intricate unit called an ecosystem.

**Skills to be Learned**

One goal in reference skills is to go to more than one source. Since animals are both predators & prey, a student must research more information about the interaction among animals. Read critically.

**DISCIPLINE AREA** Language

**SUBJECT** Critical

**PROBLEM ORIENTATION** Eco

**SUGGESTED LEARNING EX:**

I. Student-Centered in class activity

A. Classroom

1. Discuss how animals depend on each other for a food source. Select an animal & investigate what it eats & what it is a prey of.

2. Use reference material within room to investigate food chain.

B. Compare what was discovered on field trip to findings from library work. Discuss similarities & differences.
OBJECTIVES

<table>
<thead>
<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
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</tr>
<tr>
<td>II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td>A. Library</td>
</tr>
<tr>
<td>1. Go to reference material to check food chain of animals.</td>
</tr>
<tr>
<td>2. Write reports on the types of animals that are prey to particular animals, &amp; what animals are its predators.</td>
</tr>
<tr>
<td>B. Community</td>
</tr>
<tr>
<td>1. Visit a zoo, farm, fish hatchery &amp; have guided tour. Discuss the food chain of animals found in area.</td>
</tr>
<tr>
<td>C. Have a game warden visit the classroom &amp; discuss the intricate food chain necessary to maintain life. Explain why people are allowed to hunt animals such as deer. Discuss what would happen if deer were not killed off by hunters.</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
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<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td><strong>Publications:</strong></td>
</tr>
<tr>
<td>Encyclopedia</td>
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<tr>
<td>Card catalog</td>
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<tr>
<td>Magazines</td>
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</tbody>
</table>

Audio-Visual:

Community:
- State Historical Society
- Wildlife Federation
- DNR
<table>
<thead>
<tr>
<th>Ice Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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</tbody>
</table>
3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

**BEHAVIORAL OBJECTIVES**

Cognitive: The class will compose a yes and no questionnaire on the issue of the deer party permit in their state and evaluate the summary.

Affective: The student will argue pro or con that deer party permits are issued according to the carrying capacity of the area.

Skills to be Learned
- Class discussion
- Comparing questions for yes & no answers
- Making a survey
- Evaluating information in paragraph form.

**SUGGESTED TEACHING**

I. Student-Centered in class activity
   1. Discuss the issue whether a party permit for hunting deer should be allowed in the state of Wisconsin.
   2. Pupils prepare a questionnaire that could be answered with yes & no about the issue.
   3. Each student should take one or more questionnaires to different people in their home & community.
   4. Each student will write his own evaluation of the survey.
   5. Some students will write an article for the school or local newspaper.
Environmental factors are limiting the numbers of organisms living. For influence, thus, each has a carrying capacity.

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<th>Obj.</th>
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<td>II.</td>
<td>Outside Resource and Community Activities</td>
</tr>
<tr>
<td></td>
<td>1. Students will tabulate the results of the questionnaire.</td>
</tr>
</tbody>
</table>

- Discipline Area: Language Arts
- Subject: Survey
- Problem Orientation: Carry Capacity
- Grade: 6
Resource and Reference Materials

Publications:
National Wildlife Magazine, White-Tailed Deer

Audio-Visual:
Films available from the Department of Natural Resources

Community:
Representative from a local Sportsman Club
Representative from the Game Management Division
### Reference Materials

<table>
<thead>
<tr>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td><a href="https://www.example.com">Magazine, the</a></td>
</tr>
<tr>
<td><a href="https://www.example.com">Annual Report of the Small Business Development Center</a></td>
</tr>
<tr>
<td><a href="https://www.example.com">Strategies for Small Business Growth</a></td>
</tr>
<tr>
<td><a href="https://www.sba.gov">Small Business Administration</a></td>
</tr>
<tr>
<td><a href="https://www.sba.gov">Small Business Development Center</a></td>
</tr>
<tr>
<td><a href="https://www.sba.gov">Small Business Information</a></td>
</tr>
<tr>
<td><a href="https://www.sba.gov">Small Business Assistance</a></td>
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<tr>
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<tr>
<td><a href="https://www.sba.gov">Small Business Innovation Research</a></td>
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<tr>
<td><a href="https://www.sba.gov">Small Business Development Grant</a></td>
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<td><a href="https://www.sba.gov">Small Business Development Loan</a></td>
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<tr>
<td><a href="https://www.sba.gov">Small Business Development Fund</a></td>
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<tr>
<td><a href="https://www.sba.gov">Small Business Development Center Coalition</a></td>
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<tr>
<td><a href="https://www.sba.gov">Small Business Development Center Network</a></td>
</tr>
</tbody>
</table>

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[1](#) This reference is not applicable to the current context.
4. An adequate supply of pure water is essential for life.

**Concept**

**Discipline Area**

**Behavioral Objectives**

**Subject**

**Problem Orientation**

**Suggested Learning**

### Cognitive

Through researching and formal speaking, the child will demonstrate and project four ways in which life patterns are formed by the distribution of water supply.

### Affective

Formal speaking requires necessary research into the subject matter to have a better understanding of the subject. This provides a method by which the student proposes the importance of pure water supply on all living things.

### Skills to be Learned

Artificial analysis of the importance of proper water supply would be necessary. From that point, reference and research skills would be necessary. The data collected would have to be put into logical order to present speech to class.

1. **Student-Centered in class activity**
   - Read material on the water cycle.
   - Research areas that are desert and those that have adequate water supply. Find types of life found in each. Example: camel - its adaptations.
   - Discuss how animal communities survive in areas around a water body such as pond or river.
   - Discuss how cities are located on or near a source of water. Discuss how the sanitation department must continually check quality of water.
   - Assign after researching effects of water supply - student will present a chart talk on how water affects a certain type animal in its living habits. The child may use only note cards.
Adequate supply of pure water is essential for life.

**Discipline Area**

Language Arts

**Subject**

Oral report

**Problem Orientation**

E.P.A. Water

**Grade**

6

**SUGGESTED LEARNING EXPERIENCES**

I. **Class Activity**

1. Read material on the water cycle.
2. Research areas that are desert and those that have adequate water supply. Find types of life found in each. Example: camel - its adaptations.
3. Discuss how animal communities survive in areas around a water body such as pond or river.
4. Discuss how cities are located on or near a source of water. Discuss how the sanitation department must continually check quality of water.
5. Assign after researching effects of water supply - student will present a chart talk on how water affects a certain type animal in its living habits. The child may use only note cards.

II. **Outside Resource and Community Activities**

1. Send child to library to gain further information on animal they are researching.
2. Have conservationist talk to class on animal life around water supply.
3. Take class to river bank or small pond and examine an animal life or footprints and make molds. Examine and classify to appropriate animal.
4. Take field trip to sanitation department and explore necessary water treatment facilities.
5. In Fall, take trip to Fox River and note water pollution in process.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publication:</td>
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<tr>
<td>Audio-Visual:</td>
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<tr>
<td>Community:</td>
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<tr>
<td>Library</td>
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<tr>
<td>Local resources</td>
<td></td>
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<tr>
<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
</tr>
</tbody>
</table>
An adequate supply of clean air is essential because most organisms depend on respiration to supply the oxygen needed to release the energy in their food.

**BEHAVIORAL OBJECTIVES**

- **Cognitive:** Through the use of a T.V. commercial technique, visually demonstrate to the students the significance of air pollution.
- **Affective:** The student will promote the fact that air pollution is a big problem and is everyone's responsibility.

**Skills to be Learned**
- Creative Writing
- Convincing someone of the significance of an issue.
- Power of persuasion.

**SUGGESTED LEARNING EXPERIENCE**

1. **Student-Centered in class activity**
   - Brainstorm kinds of air pollution (put on board).
   - Divide class into groups of 3 or 4.
   - Each group picks one kind of air pollution.
   - Each group will demonstrate a T.V. commercial on a paper scroll shown through a cardboard box T.V. set.
   - Any form of creative writing could be used as the verbal part of the commercial such as poetry, songs (original), narration. Drawings could be in color or black and white.
The use of clean air is most organisms dependent to supply the energy. Problems must be solved to help the EPA, Air. Language Arts, Creative Writing-graphic

<table>
<thead>
<tr>
<th>ACTIVITIES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
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<td>II. Outside Resource and Community Activities</td>
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<td>Newspapers</td>
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<td>Pamphlets</td>
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<td>Conservation Dept.</td>
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<td>D.N.R.</td>
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**Audio-Visual:**
- Previous to activity watch
- commercials at home and observe:
  - Type of message
  - Length of message
  - Impact of message
  - Type of graphic

**Community:**
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
</table>

No data available.
C 6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Through research & critical writing, the child will compare & contrast two communities, one affluent & one deprived, such as the Fox River Valley and Upper Michigan.

**Affective:** The child will, by researching two completely different geographic areas, demonstrate that he is able to critically analyze how man is dependent on the various geographic conditions peculiar to the region.

**Skills to be Learned**

Researching is an intricate part of comparing & contrasting. The student must read critically about two diverse regions & find similarities & differences caused by geographic conditions in order to analyze critically.

**SUGGESTED LEARNING**

**I. Student-Centered in class activity**

1. Discuss how communities are dependent on the geographic conditions, such as paper making on the Fox River, farming in well-irrigated lands, recreation in wilderness areas.
2. Make bulletin board display on ways man is dependent on the type of conditions within 2 completely different regions. Exchange of letters with other 6th grade students of different areas.
3. Have students write a report on ways people differ in the two areas selected by individuals. Students should not be allowed to copy from book, but instead use all resources they included by means of note-taking.
4. Use reference material such as encyclopedias, atlas, etc. to compare & contrast two different regions. Also use the series of books on the states.
resources are not equally
over the earth or over

greatly affect the geographic
and quality of life.

Discipline Area       Language Arts
Subject                Critical Writing
Problem Orientation    Natural
Resources              Grade 6

OBJECTIVES

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

1. Discuss how communities are dependent on the geographic conditions, such as paper making on the Fox River, farming in well-irrigated lands, recreation in wilderness areas.

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II. Outside Resource and Community Activities

1. Invite a foreign exchange student to speak to class on how people in his country have adjusted to their environment.

2. Have agriculture agent speak to class on how a farmer within the state adjusts his crop growth to water supply, soil quality, & weather conditions.

3. Have students interview people within the community to see how they are dependent on the geographic conditions of the area.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
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</thead>
<tbody>
<tr>
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<tr>
<td>Book series on states</td>
<td></td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Community:</strong></td>
<td></td>
</tr>
<tr>
<td>Chamber of Commerce (write for information of both locations on ways of people depending on geographic conditions)</td>
<td></td>
</tr>
<tr>
<td>Agriculture agent (Ways farmers depend on geographic condition &amp; water supply)</td>
<td></td>
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<tr>
<td>County agent</td>
<td></td>
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<tr>
<td>Water department head</td>
<td></td>
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<tr>
<td>County Forester</td>
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<tr>
<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
</tr>
</tbody>
</table>

- Farmers
- Economic
- People
Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Through creative writing, the child will demonstrate and project changes in the balance of nature necessary if America's population doubled.

**Affective:** The student will defend his position on the harmful effects of overpopulation.

**Skills to be Learned**
- Critical thinking of necessary balance in nature, and creative thinking of result of imbalance.
- Research of overpopulated areas would be essential.

**SUGGESTED LEARNING EXPERIENCES**

1. **Student-Centered in class activity**
   **A. Class**
   - 1. Discuss what would happen if a local city doubles in population
      - a. sacrificed wants.
      - b. sacrificed needs.
      - c. sanitation problems.
   - 2. Plant 2 communities of radish seeds. Observe growing patterns. Discuss how people would react similarly to the plants.
   - 3. Discuss what would happen to the natural resources.
Discipline Area: Language Arts  
Subject: Creative Writing  
Problem Orientation: Population  
Grade: 6  

SUGGESTED LEARNING EXPERIENCES

<table>
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<td>A. Library</td>
</tr>
<tr>
<td>1. Locate books about countries with overpopulation (China, India).</td>
</tr>
<tr>
<td>2. Locate books about pioneer days and the environment.</td>
</tr>
<tr>
<td>B. Community</td>
</tr>
<tr>
<td>1. Visit sanitation department to find out about present population problems. Visit other community helpers and have them discuss the importance of their job.</td>
</tr>
<tr>
<td>2. Visit a farm with a conservation officer to discuss the intricate balance of nature.</td>
</tr>
</tbody>
</table>
Resource and Reference Materials

Publications:
Excerpts from Silent Spring
Rachael Carson

or

Since Silent Spring

Audio Visual:
Movie

Community:
Continued and Additional Suggested Learning Experiences
Cultural, economic, social and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Language</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Language</td>
</tr>
<tr>
<td>Problem Orientation</td>
<td>Attitude</td>
</tr>
</tbody>
</table>

**Cognitive:** Through the study of various forms of communication including verbal & nonverbal, each student will list a minimum of 4 ways that cultural, economic, social and political factors determine man's values and attitudes toward his environment.

<table>
<thead>
<tr>
<th>Suggested Learning Expe...</th>
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</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
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<tr>
<td>1. Oral discussion listing all the different ways that man can communicate - including those not in use anymore ex. smoke signals. Have students list on board.</td>
</tr>
<tr>
<td>2. Evaluate student's work through an oral test (Verbal Communication) listing the different attitudes and values toward environment that they became aware of through their interviews.</td>
</tr>
</tbody>
</table>

**Affective:** Students will investigate the fact that many factors influence man's attitude toward his environment and may express these through all forms of communication which we will divide into 2 groups, verbal and nonverbal.

**Skills to be Learned**
- Discussion
- Interview

**Suggested Learning Experiences**

1. Oral discussion listing all the different ways that man can communicate - including those not in use anymore ex. smoke signals. Have students list on board.
2. Evaluate student's work through an oral test (Verbal Communication) listing the different attitudes and values toward environment that they became aware of through their interviews.
Economic, social and cultural factors determine status and attitudes toward the environment.

**Table: Suggested Learning Experiences**

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<td>1. Oral discussion listing all the different ways that man can communicate - including those not in use anymore e.g., smoke signals. Have students list on board.</td>
<td>1. Have students interview 3 to 5 people of different backgrounds on their feelings, values, and attitudes toward their environment and their concern in maintaining a balanced ecosystem.</td>
</tr>
<tr>
<td>2. Evaluate student's work through an oral test (Verbal Communication) listing the different attitudes and values toward environment that they became aware of through their interviews.</td>
<td>2. Demonstrate to students by taking a field trip to a local park or recreation area &amp; without verbal communication but by actions, try to do something specific such as picking up litter, etc. They can influence in a favorable way the actions of others.</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggested Literature</td>
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<td>----------------------------------</td>
<td>---------------------------------------------</td>
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<td></td>
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<tr>
<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
</tr>
</tbody>
</table>
C 9. Man has the ability to manage, manipulate, and change his environment.

BEHAVIORAL OBJECTIVES
Cognitive: Through dramatization, each student will demonstrate one specific need of man & one specific want that is not essential to life.

Affective: The student will distinguish between the demands & needs of man.

Skills to be Learned
Dramatization
Discussion
Comparing

SUGGESTED LEARNING EXPERIENCE
I. Student-Centered in class activity
   A. Classroom activity
      1. Discuss the differences between wants & needs.
      2. List on board the items that are man's wants & those that are man's needs.
      3. Discuss ways in which man has damaged or destroyed his environment through striving for luxuries.
      4. Compare primitive man to modern man & point out differences in life style.
      5. Assignment: From the list of wants & needs have the students select one of each to dramatize before the group.
<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
<td>II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td>A. Classroom activity</td>
<td>A. Enrichment &amp; Expanded Activities</td>
</tr>
<tr>
<td>1. Discuss the differences between wants &amp; needs.</td>
<td>1. Groups will volunteer &amp; develop skits, one dealing with life with only needs and one with depicting life with abundant wants. Compare to life style.</td>
</tr>
<tr>
<td>2. List on board the items that are man's wants &amp; those that are man's needs.</td>
<td>2. Discuss finding a balance between wants &amp; needs to safeguard our environment.</td>
</tr>
<tr>
<td>3. Discuss ways in which man has damaged or destroyed his environment through striving for luxuries.</td>
<td>B. Library</td>
</tr>
<tr>
<td>4. Compare primitive man to modern man &amp; point out differences in life style.</td>
<td>1. Select material on various societies &amp; compare to our society.</td>
</tr>
<tr>
<td>5. Assignment: From the list of wants &amp; needs have the students select one of each to dramatize before the group.</td>
<td>2. Read about pioneers &amp; compare their wants to the wants of society today.</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggested</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>------------------------------------</td>
</tr>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
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<tr>
<td>Ai Tam:</td>
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</tr>
<tr>
<td>Neighbors, as described in</td>
<td></td>
</tr>
<tr>
<td>An Annotated Checklist of 200</td>
<td></td>
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<tr>
<td>Short Films for Writing Classes,</td>
<td></td>
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<tr>
<td>available from Ill. Assoc. of</td>
<td></td>
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<tr>
<td>Teachers of English, Urbana,</td>
<td></td>
</tr>
<tr>
<td>Ill. for 35¢</td>
<td></td>
</tr>
</tbody>
</table>

| **Audio-Visual:**                |                                    |
| **Film:**                        |                                    |

Neighbors, as described in
An Annotated Checklist of 200
Short Films for Writing Classes,
available from Ill. Assoc. of
Teachers of English, Urbana,
Ill. for 35¢
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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<td></td>
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</tr>
</tbody>
</table>
Short-term economic gains may produce long-term environmental losses.

**BEHAVIORAL OBJECTIVES**

<table>
<thead>
<tr>
<th>Cognitive:</th>
<th>Through dramatization the child will demonstrate ways in which man's desire for economic gains have produced long-term environmental losses.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective:</td>
<td>The child will offer evidence of the need for the preservation of our natural resources.</td>
</tr>
</tbody>
</table>

**Skills to be Learned**

- Communication
- Dramatization

**SUGGESTED LEARNING EXPERIENCE**

1. Student-Centered in class activity
   1. Classroom
      1. Have each student select an area they have discovered man has sacrificed his environment for economic gains. Child should stress how man's greed has affected his environment.
<table>
<thead>
<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Student-Centered in class activity</strong></td>
</tr>
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<td>A. Classroom</td>
</tr>
<tr>
<td>1. Have each student select an area they have discovered man has sacrificed his environment for economic gains. Child should stress how man's greed has affected his environment.</td>
</tr>
<tr>
<td><strong>II. Outside Resource and Community Activities</strong></td>
</tr>
<tr>
<td>A. Outside classroom</td>
</tr>
<tr>
<td>1. Take a field trip to a farm land that has been over farmed &amp; crops are poor.</td>
</tr>
<tr>
<td>2. Take a field trip to Fox River to observe the polluted areas &amp; discuss how man's demands have hampered the natural beauty of its river.</td>
</tr>
<tr>
<td>3. Take pictures of areas that have been hampered by man's desire for economic gains.</td>
</tr>
<tr>
<td>B. Library Study</td>
</tr>
<tr>
<td>1. Have students research in library for ways in which man has created long-term losses by economic gains.</td>
</tr>
<tr>
<td>2. Have game warden, county forester or water dept. head talk to class on ways man's greed for economic gains (cont.)</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td><strong>Publications:</strong></td>
</tr>
<tr>
<td>Newspaper clippings on ways man</td>
</tr>
<tr>
<td>has cut forest, overused farm</td>
</tr>
<tr>
<td>land</td>
</tr>
<tr>
<td>Pamphlets from county agent on</td>
</tr>
<tr>
<td>poor agricultural practices</td>
</tr>
<tr>
<td>Conservation magazine</td>
</tr>
</tbody>
</table>

**Audio-Visual:**

**Community:**
Continued and Additional Suggested Learning Experiences

II. (cont.)

has hampered their particular field.
Individual acts, duplicated or compounded, produce significant environmental alterations over time.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Using developed slides, the students will write a photographic essay to show how man has marred the beauty of nature.

**Affective:** Students will criticize actions of themselves and others when they observe an ugly area.

**Skills to be Learned**
- Composing a good picture
- Writing narrative
- Oral reading for taping

**SUGGESTED LEARNING EXPERIENCES**

I. **Student-Centered in class activity**
- Discuss beautiful or attractive places students have seen. Discuss others that are ugly and unattractive. What caused the ugliness?

II. **Out activity**
- **Content:**
  - Beautiful or attractive places
  - Unattractive Th
  - Action (Teaching)
  - Working with action (Students)
  - Action (Students)
  - Teaching
  - Unattractive
  - Sometime as a group, Time: total 30 min.

**Problem Orientation**
- **Pollution**

**Discipline Area**
- **Language Arts**

**Subject**
- **Writing**
Duplicated

Produce significant

gerations over time.

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Language Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Writing</td>
</tr>
<tr>
<td>Problem Orientation</td>
<td>Pollution</td>
</tr>
<tr>
<td>Grade</td>
<td>6</td>
</tr>
</tbody>
</table>

**OBJECTIVES**

- Developed activities are student-centered.
- Students develop skills in identifying and solving problems.
- Students develop language abilities.
- Students develop reading skills.
- Students develop writing skills.

<table>
<thead>
<tr>
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<table>
<thead>
<tr>
<th><strong>II. Outside Resource and Community Activities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Plan a photographic field trip. Take pictures (slides) of lovely natural scenes. Also take some pictures (slides) of places where man has polluted or marred the countryside. (Students may take notes to help recall the pictures they've taken). After the pictures are developed and the choice one's selected, the students will write narration to accompany the slides. (Students may bring slides they have at home or may take pictures of pictures.) The narrative should be put on tape and the tape played as the slides are shown. To introduce the part of the tape on lovely scenes, the song &quot;America the Beautiful&quot; could be sung. The song &quot;Pollution&quot; could be sung to introduce the part on the ugly scenes.</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td>Publications:</td>
</tr>
<tr>
<td>Magazines with colorful scenes</td>
</tr>
<tr>
<td>Audio-Visual:</td>
</tr>
<tr>
<td>Camera</td>
</tr>
<tr>
<td>Tape recorder</td>
</tr>
<tr>
<td>Community:</td>
</tr>
<tr>
<td>Local photographer</td>
</tr>
</tbody>
</table>

205
Continued and Additional Suggested Learning Experiences
### BEHAVIORAL OBJECTIVES

**Cognitive:** Through letter writing and summarizing, the student will list six ways in which one element in the ecosystem has caused an imbalance affecting and violating the rights of others.

**Affective:** Students will suggest to various sources ways to help guard against any manipulation or man-made changes being committed against elements of the ecosystem.

**Skills to be Learned**

- Developing the skill of concise and properly written letters.
- Developing the skill of summarizing—being able to pick out the important points each author is making in what they have read; also, summarizing material that they have heard.

### SUGGESTED LEARNING PLAN

**I. Student-Centered in class activity**

- **A.** Write various agencies of the Federal and State governments in regard to how man has destroyed the balance of the ecosystem.
- **B.** Bring papers and magazines and books with articles on how rights have been violated.
- **C.** When material from government agencies is received, have students compile and summarize important points made by the agencies.

**1.** Several students could write these on a master and-run off copies for all students.

**D.** As a follow-up to these activities, students could write letters to various government officials with their suggestions and also ask them what they could do to help guard against any manipulation or man-made (cont)}
Ownership must be respected, stewardship and should not be upon or violate the right of others.

**GENERAL OBJECTIVES**

Through letter summarizing, the student will list six one element which has balance yet violating each other.
- Students will use various sources, guard against violation or manipulation against elements of the system.

Learned the skill and properly use letters.
- The skill of writing—being able to write out the ideas each student is taking in what they have heard.

**SUGGESTED LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
</tr>
</thead>
<tbody>
<tr>
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<td></td>
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<tr>
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<tr>
<td>C. When material from government agencies is received, have students compile and summarize important points made by the agencies.</td>
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<td>l. Several students could write these on a master and—run off copies for all students.</td>
<td></td>
</tr>
<tr>
<td>D. As a follow-up to these activities, students could write letters to various government officials with their suggestions and also ask them what they could do to help guard against any manipulation or man-made (cont.)</td>
<td></td>
</tr>
</tbody>
</table>
Resource and Reference Materials

Publications:
State Historical Society
books and pamphlets
U.S. Office of Education
Environmental Problems
Agency bulletins, excerpts,
free educational materials

Audio-Visual:
Student made slides, 8MM films
of local conditions

Continued and Additional

Student-Centered in class
changes being commit
of the ecosystem.
E. Try to make the stud
they, as individuals
protecting the right
elements in the ecos

Community:
Speakers:
politician
DNR representative
conservationist
water dept. representative
local contractor
farmer
changes being committed against the various elements of the ecosystem.

E. Try to make the students aware through discussion that they, as individuals, can play an important role in protecting the rights of everyone by protecting all elements in the ecosystem.

Student-Centered in class activity (cont.)

<table>
<thead>
<tr>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>&amp;</td>
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<tr>
<td>---</td>
</tr>
<tr>
<td>Student-Centered in class activity (cont.)</td>
</tr>
<tr>
<td>E. Try to make the students aware through discussion that they, as individuals, can play an important role in protecting the rights of everyone by protecting all elements in the ecosystem.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Nature Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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</thead>
<tbody>
<tr>
<td>---</td>
<td>---</td>
</tr>
<tr>
<td>Student-Centered in class activity (cont.)</td>
<td></td>
</tr>
<tr>
<td>E. Try to make the students aware through discussion that they, as individuals, can play an important role in protecting the rights of everyone by protecting all elements in the ecosystem.</td>
<td></td>
</tr>
</tbody>
</table>
12. Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

BEHAVIORAL OBJECTIVES

Cognitive: The child will criticize a city and a rural community's needs for pollution control and how people are interdependent upon people within the community.

Affective: The child will criticize the needs for pollution control and interdependence within communities will be shown through his critical writing.

SUGGESTED LEARNING

I. Student-Centered in class activity

A. Students can write the Chamber of Commerce in cities located on or near the Fox River. Students can also write a conservation agent, county forester, agriculture agent, to gain information about pollution in particular areas.

B. Develop a bulletin board on comparison of city and rural community pollution problems.

C. Have city planner, water sewage director, or city sanitary worker visit the class and explain pollution problems within the city.

D. Ask county forester, agent or conservationist to visit class and explain pollution problem in a rural community.

E. Have students write a critical analysis by comparison of problems that affect a city and rural community.
Ownership must be re-
tewardship and should
upon or violate
right of others.

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Child will be</td>
<td>I. Student-Centered in class</td>
</tr>
<tr>
<td>have needs for</td>
<td>activity</td>
</tr>
<tr>
<td>control and</td>
<td>A. Students can write the</td>
</tr>
<tr>
<td>within</td>
<td>Chamber of Commerce in</td>
</tr>
<tr>
<td>community.</td>
<td>cities located on or near</td>
</tr>
<tr>
<td>Child will</td>
<td>the Fox River. Students</td>
</tr>
</tbody>
</table>
| needs for | can also write a conserv-
| control and | vation agent, county |
| within | forester, agriculture |
| will | agent, to gain informa-
<p>| be | tion about pollution |
| learning | in particular areas. |
| | B. Develop a bulletin |
| | board on comparison of |
| | city and rural community |
| | pollution problems. |
| | C. Have city planner, water |
| | Sewage director, or city |
| | sanitary worker visit the |
| | class and explain pollution |
| | problems within the city. |
| | D. Ask county forester, agent |
| | or conservationist to |
| | visit class and explain |
| | pollution problem in a |
| | rural community. |
| | E. Have students write a |
| | critical analysis by |
| | comparison of problems |
| | that affect a city and |
| | rural community. |
| | II. Outside Resource and |
| | Community Activities |
| | A. Take a bus trip through |
| | a city on the Fox River |
| | such as Appleton, Green |
| | Bay, Kaukauna, or |
| | Kimberly to see the |
| | effect of pollution in |
| | a city area. |
| | B. Take a field trip to a |
| | farm area where erosion |
| | and pollution have taken |
| | place. |</p>
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggest</th>
</tr>
</thead>
<tbody>
<tr>
<td>Publications:</td>
<td></td>
</tr>
<tr>
<td>Newspaper articles</td>
<td></td>
</tr>
<tr>
<td>Pamphlets published by Chamber of Commerce within State of Wisconsin or Department of Natural Resources, Conservation, or Forestry</td>
<td></td>
</tr>
<tr>
<td>Audio-Visual:</td>
<td></td>
</tr>
<tr>
<td>Community:</td>
<td></td>
</tr>
</tbody>
</table>
Continued and Additional Suggested Learning Experiences

Reference Materials

Con inued and Addititmai Sugge ted Learnin Experiences

Wisconsin Cber of
Natural Resources.
In commenting on each episode used in your class, you may wish to format. Please feel free to adapt it and add more pages. Let us know comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials (specific suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

If each episode used in your class, you may wish to duplicate this suggested form to adapt it and add more pages. Let us know all your critiques and positive experiences.

Community Activities

References 

A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts GRADE 7

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin 54301
(414) 432-4338
INSTRUCTION - CURRICULUM - ENVIRONMENT

THE PROGRAM FOR ENVIRONMENTAL EDUCATION

CESA Language Arts GRADE 7

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

For Title III E.S.E.A.

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist

335-33 CESA's 3-8-9

Street

Wisconsin 54301
PREFACE

If you wish to excite students about their environment, help of over a hundred teachers, year long meetings, a summer work ecologists, this guide means realistic, developed aid for you which have directed teachers in writing and editing this guide

1. This guide is supplementary in nature and the episodes are--to plug into existing, logical course content.

2. Each page or episode offers suggestions. Since you know you to adapt, adopt, or use. By design, the range of suggestion and usage are even wider. Many episodes are self others can be changed in part or developed more keenly over possibilities allow you to explore.

3. Now we urge that you try the episodes and suggested learning plan. The reasons are simple. No guide has all the answers unless viewed in the context of your classroom situation. give it a triple reading, check over the resources listed, prime your students, and seek help. The Project personnel knowledge page stand ready to aid your efforts. Feel free

4. The Project Resource Materials Center serves all CESA 3, 8 private. We will send available materials pre-paid. Call visit. Phone 432-4338.

5. Check often the Project ICE Bibliography in your school library Center materials. Please offer suggestions, comments, or service may grow. Let's help each other.

6. Involve yourself with the guide by reacting to it with suggestions on the episode pages or use the attached evaluated in late May next year and will be used in our revised reactions and suggestions--negative and positive. Please note in the episodes may refer to specific, local community roles cases, individual school districts and teachers will have substitutes. A list of terms pertinent to the episodes is below.

7. Ecologists and other experts have simplified the issue--sur Creation's beauty and complexity--often noted as the work of human energy to save. A year's work by a hundred of your gesture. Without you, their work will crumble, and so might let us live to think, feel, and act in harmony with our wor

1. Cognitive means a measurable mental skill, ability, or pro
2. Affective refers to student attitudes, values, and feelings
3. APWI means Acceptable Performance Will Include (labels a
4. EPA - Environmental Problem Area.
PREFACE

Excite students about their environment, help is ready. Thanks to the efforts of teachers, year long meetings, a summer workshop, university consultants and aide means realistic, developed aid for you. Please note the following ideas and teachers in writing and editing this guide, supplementary in nature and the episodes are designed—at appropriate instance, logical course content.

Episode offers suggestions. Since you know your students best, you decide what, or use. By design, the range of suggestions is wide; your chances for experience are even wider. Many episodes are self-contained, others open-ended, still hanged in part or developed more keenly over a few weeks. These built-in allow you to explore.

But you try the episodes and suggested learning experiences but please realize the context of your classroom situation. Thus, before trying an episode, be reading, check over the resources listed, make mental and actual notes, and seek help. The Project personnel and teachers listed on theacknowledge stand ready to aid your efforts. Feel free to ask their help in pre-planning.

Source Materials Center serves all CESA 3, 8, and 9 area schools—public and I II send available materials pre-paid. Call for any help, materials, or more to 32-4338.

Project ICE Bibliography in your school library for available Resources. Please offer suggestions, comments, or advice—at any time—so that this

Let's help each other,

of with the guide by reacting to it with scratch ideas, notes, and extended the episode pages or use the attached evaluation format, which will be col-

May next year and will be used in our revisions. We sincerely want your suggestions—negative and positive. Please note that some resources listed may refer to specific, local community resources or conditions. In such school districts and teachers will have to adopt local or available sub-

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other experts have simplified the issue—survival—yours, mine, our students, ty and complexity—often noted as the work of a genius—will take our genius

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Editorial Board

ans a measurable mental skill, ability, or process based on factual data.

fers to student attitudes, values, and feelings.

Acceptable Performance Will Include (labels a cognitive or mental performance.)

mental Problem Area.
ACKNOWLEDGEMENTS: The following teachers and consultants participated in the Supplementary Environmental Education Program:

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Willard Collins, Crivitz
John Cowling, Niagara
Nicholas Dal Santo, Pembine
Robert Dickinson, Oconto
Ann Fuhrmann, Marinette
Lillian Goddard, Coleman
William Harper, Lena
Robert Herz, St. James (L)
Ester Kaatz, Wausaukee
Michael Kersten, Suring
Douglas Koch, Cath. Central
Donald Marsh, Bonduel
David Miskulin, Goodman
Don Olsen, Shawano
Elmer Schabo, Niagara
Marion Wagner, Gillett
Ruth Ward, Crivitz
George Kreiling, Marinette
Marg. McCambridge, White Lake
Virginia Pomusl, White Lake
Gailen Braun, Lena
Kay DePuydt, Gillett
Louise H. Benter, Gillett

CESA #8
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David Bell, Neenah
Marie Below, Clintonville
William Bohne, Kimberly
Bob Church, Little Chute
Ronald Conradt, Shiocton
Lee Halberg, Appleton
Ronald Hammond, Hortonville
Jerome Hennes, Little Chute
Barbara Huth, Menasha
Darrell Johnson, Hortonville
Bernadyne King, Neenah
Harold Lindhorst, St. Martin (L)
John Little, Winneconne
Gordon Rohloff, Oshkosh
William Schaff, St. Joseph
Doris Stehr, Mt. Calvary (L)
Carolyn Shills, New London
Sister Dorothy, Xavier
Clarence Trentlage, Freedom
Mike Hawkins, Xavier
Beth Hawkins, Xavier
Ed Patschke, Menasha
Connie Peterson, St. Martin (L)
Dallas Werner, Kaukauna
Ron Schreier, Omro

Consultant Staff
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Charles Richards, UW-Marinette Ednajean Purcell, OSU
David West, Lawrence U.
The following teachers and consultants participated in the development of the Supplementary Environmental Education Guide:

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- Lowell Baltz, Weyauwega
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- Sister Dorothy, Xavier
- Clarence Trentlage, Freedom
- Mike Hawkins, Xavier
- Beth Hawkins, Xavier
- Ed Patschke, Menasha
- Connie Peterson, St. Martin (L)
- Dallas Werner, Kaukauna
- Ron Schreier, Omro

**CESA #9**

- Joan Alioto, Denmark
- Angela Anthony, Gibraltar
- Harold Baeten, St. Norbert
- Anthony Balistreri, Howard-Suamico
- Lillian Berges, Seymour
- Carmella Blecha, Green Bay
- Joan Charnetski, Sevastopol
- Billie Feichtinger, Green Bay
- Rev. B. Frigo, Abbot Pennings
- Robert Haen, Luxemburg-Casco
- Russ Hanseter, Seymour
- Paul Kane, Ashwaubenon
- Roy Lukes, Gibraltar
- Sister Anna, St. Philips
- Jim Maki, Sturgeon Bay
- Joyce Mateju, Algoma
- Richard Minten, W. DePere
- Gloria Morgan, Linsmeier Private
- George Pederson, Southern Door
- Alan Schuh, Pulaski
- Thomas Weyers, Cathedral
- Ruth Windmuller, Green Bay
- James Wiza, DePere
- John Torgerson, Kewaunee
- Benjamin Roloff, Howard-Suamico
- Greg Schmitt, Cathedral
- John DeWan, Green Bay
- Emmajean Harmann, Sevastopol
- Ray Gantenbein, Green Bay
- David Bartz, Sturgeon Bay
- John Hussey, Green Bay
- Sister Barbara, St. Bernard

**Edna Jean Purcell, OSU**

**David West, Lawrence U.**

**Robert Cook, UWGB**

**Dennis Bryan, UWGB**
1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive:</strong> Given an incomplete food chain, the student, through application of location skills, will be able to place himself as a link in the chain of life, and place the sun as the main energy source.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td><strong>Affective:</strong> Using basic research skills through the use of media, the students will support the &quot;sun's energy cycle.&quot;</td>
<td>A. Class</td>
</tr>
</tbody>
</table>

1. Discuss the food chain of algae to the sun.
2. Use string to build a "web of life" which shows how plants and flowers and bugs and man all need the sun.

**Skills to be Learned**
- Location skills:
  - Use of card catalogue
  - Use of the reader's guide
  - Films-Film loops-Film strips
From the sun, the basic source of energy, is converted through photosynthesis into a form all living things can use for life processes.

**SUGGESTED LEARNING EXPERIENCES**

**I. Student-Centered in class activity**

A. Class

1. Discuss the food chain of algae to the sun.
2. Use string to build a "web of life" which shows how plants and flowers and bugs and man all need the sun.

**II. Outside Resource and Community Activities**

A. Library

1. Locate books on Ecology showing food chains.
2. Locate the Second law of thermodynamics.
3. Find 3 current articles dealing with destruction of eco-systems.
4. Read articles dealing with the conversion of solar energy.

B. Community

1. Field, ecology trips to discover food chains.

**LEARNED SKILLS:**
- Catalogue
- Reader's guide
- Hoop-Film

**TARGET OBJECTIVES**

- Given an incomprehensible task, the student will use application skills, place him/herself in the environment, and place himself in the main energy process.

- Using basic skills through media, the student will support an energy cycle.
Resource and Reference Materials

Publications:
- Life Magazine, Ecology
- Conservation (pamphlet)
- Cornell University Press

Audio-Visual:

Community:
- County Soil Conservation
- Office - Court House
- Agriculture Extension Agent
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
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</table>
C 2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

BEHAVIORAL OBJECTIVES

Cognitive: The student will compile a list of ideas through the technique of brainstorming, concerning the question: What ways can man live in harmony with nature in the 20th century?

Affective: Through technique of brainstorming the student will suggest that the manipulation of one element in nature affects all elements.

Skills to be learned

Brainstorming
List-making

I. Student-Centered in class activity

A. Present to the group the techniques of getting ideas through "throwing out" ideas quickly and "freewheeling" to get ideas on the topic.

B. Form groups of five. Each group with a tape recorder or paper.

C. From chairman's reports eliminate all lesser important ideas through the use of the tape recorder.

D. Compile a final list of selected ideas.
Intricate unit called an ecosystem affects.

<table>
<thead>
<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
<th>I. Student-Centered in class activity</th>
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<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>Group Dynamics</td>
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<tr>
<td>A Source Book for Creative Thinking,</td>
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<tr>
<td>Sidney Parnes &amp; H. Harding,</td>
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<td></td>
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<tr>
<td>editors; Charles Scribner's Sons,</td>
<td></td>
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<td>publisher; New York.</td>
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</tbody>
</table>

**Audio-Visual:**

**Community:**
<table>
<thead>
<tr>
<th>The Materials</th>
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<tr>
<td>Active Thinking,</td>
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<td>Inventing,</td>
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<td>Pioneer's Sons,</td>
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</tbody>
</table>

-217
C 3. Environmental factors are limiting
on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

**BEHAVIORAL OBJECTIVES**

| Cognitive: When a list of man's needs are established, the student will show by class discussion evidence of man's possible over-use and mis-use of these needs. |
| Affective: Attempting to locate a delicate line between what man needs, and what he thinks he needs, the student will submit what he thinks are apparent discrepancies in these needs. |

**Skills to be Learned**
- Research skills
- Group communication
- Critical analysis
- Speaking activities
- Brainstorming in small groups

**SUGGESTED LEARNER ACTIVITY**

1. Student-Centered in class activity
   - Develop with the students through individual research and compilations a list of man's basic needs.
2. Taking the list of basic needs (unique in your class) begin a critical analysis of each, as to its degree as a need and its actual degree of use. (Is it being mis-used, over-used, etc?)
3. Form debate teams either formal or informal. Allow students to form lines along that which they believe as much as possible. One team defending a given need itself, perhaps, or its use or misuse.
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bers of organisms living

ir influence, thus, each

it has a carrying capacity.

<table>
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<tr>
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<td>I. Student-Centered in class</td>
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| Problem Orientation Carry Capacity Grade 7 |

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Language Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Debate</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggested</td>
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<tr>
<td><strong>Publications:</strong></td>
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<td><strong>Books:</strong></td>
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<tr>
<td>Science encyclopedias</td>
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<td>textbooks</td>
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<td>Patterns of Living, Lyons</td>
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<td>and Carnahan</td>
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<td>Discussion &amp; Debate, National</td>
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<td>Textbook Co.</td>
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<td>Speaking By Doing, National</td>
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</table>

**Audio-Visual:**

**Community:**


4. An adequate supply of pure water is essential for life.

Cognitive: After viewing the film "The Gifts", field trip and personal activities, students will discuss the various types of water pollution. Affective: Since an adequate supply of pure water is essential to life, hopefully the students will argue that water pollution is a serious problem.

Skills to be Learned
- Discussion
- Observation

SUGGESTED LEADERSHIP TECHNIQUE
1. Student-Centered in class activity
   1. After viewing the film "The Gifts", students will react orally by expressing the feeling that well up as a result of the film.
   2. They will discuss and become aware of ways that they pollute directly or indirectly.
Adequate supply of pure water is essential for life.

**Discipline Area** | **Language Arts**
---|---
**Subject** | **Discussion**

**Problem Orientation** E.P.A. Water Grade 7

<table>
<thead>
<tr>
<th><strong>Affective Objectives</strong></th>
<th><strong>Suggested Learning Experiences</strong></th>
</tr>
</thead>
<tbody>
<tr>
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<td><strong>class activity</strong></td>
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<td>of the film.</td>
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<td><strong>2. They will discuss and become aware of ways</strong></td>
</tr>
<tr>
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<td>that they pollute directly or indirectly.</td>
</tr>
</tbody>
</table>

**II. Outside Resource and Community Activities**

1. Students will visit and observe local pollution areas and prepare to discuss their findings in class.
Resource and Reference Materials

Publications:
- Lord Jim by Joseph Conrad
  (Excerpts read by the teacher)

Audio-Visual:
- Film: "The Gifts"
  Project I-C-E Resource Center
  1927 Main Street
  Green Bay, WI 54301
  or
  U.S. Department of Interior
  Federal Water Quality Assn.
  Office of Public Instruction

Community:
- Field Trip
C 5. An adequate supply of clean air is essential because most organisms depend on respiration to supply the oxygen needed to release the energy in their food.

### BEHAVIORAL OBJECTIVES

**Cognitive:** Through critical reading the student will be able to distinguish between fact vs. opinion or adequate air supply through newspaper articles and labeling these articles as factual or opinionated.

**Affective:** The student submits that critical reading is a method which demonstrates that all material read in newspapers is not factual but in many cases, is the opinion of an individual which is mostly prejudiced in one form or other.

**Skills to be Learned**

- Distinguish factual material on air pollution from a writer's opinion.
- Effective critical reading is analyzing and categorizing material.

### SUGGESTED LEARNING ACTIVITIES

1. **Student-Centered in class activity**
   - 1. Bring to class enough local newspapers that each student will have two to read and look for appropriate articles.
   - 2. Teacher will xerox several articles that demonstrate opinion and articles that demonstrate fact to develop student's awareness of the differences that are existent.
   - 3. After reading articles on air pollution, each student will write a paragraph expressing his opinion of air pollution as it exists in his community.
   - 4. Students will then research factual material on air pollution and write a paragraph that is based on pure facts.
   - 5. Class discussion held on which type paragraph students found most difficult to write and why. Each student will--
Subject: Critical Reading-Writing

Discipline Area: Language Arts

Grade: 7

Problem Orientation: E.P.A. Air

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in Community Activities

1. Have a newspaper reporter or editor speak to the class on writing editorials (which are editor's opinion).

II. Outside Resource Activity

1. Bring to class enough local newspapers that each student will have two to read and look for appropriate articles.

2. Teacher will xerox several articles that demonstrate opinion and articles that demonstrate fact to develop student's awareness of the differences that are existent.

3. After reading articles on air pollution, each student will write a paragraph expressing his opinion of air pollution.

4. Students will then search factual material on air pollution and write a paragraph expressing his opinion of air pollution which is based on pure facts.

5. Class discussion held on which type paragraph students found most difficult to write and why. Each student will...(cont.)
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestions</th>
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</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td>I. (cont.)</td>
</tr>
<tr>
<td>Newspaper articles</td>
<td>read orally both of his paragraphs of</td>
</tr>
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<td></td>
<td>the class to share opinions</td>
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<td><strong>Audio-Visual:</strong></td>
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<td><strong>Community:</strong></td>
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<tr>
<td>Have newspaper writer</td>
<td></td>
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<tr>
<td>or editor visit class</td>
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</table>
Continued and Additional Suggested Learning Experiences.

I. (cont.)
read orally both of his paragraphs which will enable all of the class to share opinions and facts on air pollution.
6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

**BEHAVIORAL OBJECTIVES**

<table>
<thead>
<tr>
<th>Cognitive: After a buzz session, students will formulate conclusions on the issue that 6 environmental changes made by man may damage plants and animals &amp; upset the ecological balance. Affective: The student should promote the beauty of a pond and a sense of responsibility for its preservation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills to be Learned Discussion Buzzing</td>
</tr>
</tbody>
</table>

**SUGGESTED LEARNING EXPERIENCES**

1. **Student-Centered in class activity**
   - Students will read the story "Walden's Pond" by Thoreau; then randomly place children in groups of 3 or 4 & have them "buzz" for about 10 minutes about the things Thoreau enjoyed during his visit to Walden Pond. Instruct each group to formulate & write down statements made--accept all statements. Have a master list of the children's statements typed & distribute copies to the class the following day. The initial statements are discussed, refined, reworded, retyped & copies are given to group members to help them formulate ideas for another buzz session. The students could follow the same procedure to answer the question, "What would happen to the plant & animal life if the engineers planning a new highway decide to drain Walden Pond?" At the end (Cont.)
Resources are not equally distributed over the earth or over land. They significantly affect the geographic quality of life.

**OBJECTIVES**

1. Students will discuss the implications on the environment made by man and the ecosystem in the area.
2. The students will learn the beauty of the surrounding environment for its own sake.

**SUGGESTED LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
</tr>
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<tbody>
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<td>1. Students will read the story &quot;Walden's Pond&quot; by Thoreau; then randomly place children in groups of 3 or 4 &amp; have them &quot;buzz&quot; for about 10 minutes about the things Thoreau enjoyed during his visit to Walden Pond. Instruct each group to formulate &amp; write down statements made--accept all statements. Have a master list of the children's statements typed &amp; distributed copies to the class the following day. The initial statements are discussed, refined, reworded, retyped &amp; copies are given to group members to help them formulate ideas for another buzz session. The students could follow the same procedure to answer the question, &quot;What would happen to the plant &amp; animal life if the engineers planning a new highway decide to drain Walden Pond?&quot; At the end</td>
<td></td>
</tr>
<tr>
<td>1. Students visit a local pond individually or in a group, depending on the area.</td>
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*Cont.*)
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestions</th>
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<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
</tr>
<tr>
<td>Wide, Wide World of Literature,</td>
<td>I. (Cont.)</td>
</tr>
<tr>
<td>'The Loon' by Henry David Thoreau</td>
<td>of the buzz session, each group</td>
</tr>
<tr>
<td></td>
<td>conclusions.</td>
</tr>
</tbody>
</table>

**Audio-Visual:**

**Film:**

World in a Marsh, Consulate
General of Canada Film
Library, 310 S. Michigan
Avenue, Chicago, Ill. 60604

**Community:**

High school biology teacher
(could talk to the class about life in a pond.)
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thoreau's literature, David Thoreau</td>
<td>I. (Cont.) of the buzz session, each group will report its conclusions.</td>
</tr>
</tbody>
</table>
C 7. Factors such as facilitating transportation, economic conditions, population growth, Discipline Area and increased leisure time have a great influence on changes in land use and centers of population density.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive: After being involved in various sized groups, the student will choose the one size which has the best &quot;lines&quot; of communication. Affective: Students will evaluate the fact that population size affects communication.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>Skills to be Learned</td>
<td>A. The teacher divides the class into 2 groups &amp; gives them a problem to discuss. After discussing for 5 minutes, divide the class into 3 groups to discuss another issue. There will be a third regrouping of the 5 groups &amp; a final group of 10 groups, each of the 4 groups will have a different topic of discussion. One person from each of the final groupings will be chosen as a panelist. This group of 10 will discuss how the size of the group affects communication.</td>
</tr>
<tr>
<td>Speaking</td>
<td>Examples of topics: Should we have a candy machine in our school? Should we have students move the halls? What should we do for students who misbehave? When do we have recess?</td>
</tr>
<tr>
<td>Group discussion</td>
<td>Note: Illustration of group on next page.</td>
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<tr>
<td>Panel discussion</td>
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<tr>
<td>Problem Solving</td>
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</table>
such as facilitating transportation, conditions, population growth, Discipline Area Language Arts

based leisure time have a great Subject Discussion

on changes in land use and Problem Orientation Population Grade 7

of population density.

II. Outside Resource and Community Activities

Table 1. Possible Learning Experiences

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<td>Resource and Reference Materials</td>
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</table>

(One student from each of the f
Continued and Additional Suggested Learning Experiences

1. Illustration of groupings:

(PANEL)

(One student from each of the final groupings)
Cu1tural, economic, social, and political factors determine status of man's values and attitudes.

Skills to be Learned:
- Writing narration in dialog form
- Critical thinking
- Researching

Objectives:

Cognitive: Through a dialog narration, the students will creatively write how the cultures of the white man & Indian create different values & attitudes toward their environment.

Affective:
The students will support the fact that different cultures will produce different values & attitudes.

Skills to be Learned:
- Writing narration in dialog form
- Critical thinking
- Researching

Suggested Activity:

1. Read the story, *Li in the Forest* by Co. Richter.
2. Discuss True Son's attitudes toward the man's civilization.
3. Write a dialog narrative about True Son's adopted Indian attitudes, the man's civilization, and his attitudes as he and his brother compared life, such as True Son & his brother might have about the choices in the way life.
Natural, economic, social, and
demographic factors determine status
and values and attitudes toward this environment.

**Behavioral Objectives**

<table>
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<tr>
<th>I. Student-Centered in class activity</th>
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<tbody>
<tr>
<td>A. Class</td>
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<tr>
<td>2. Discuss True Son's attitude toward the white man's civilization. How are his attitudes as an adopted Indian different from his brother Gordy's attitudes?</td>
</tr>
<tr>
<td>3. Write a dialog narration such as True Son &amp; Gordy might have about their choices in the way of life.</td>
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</table>

**Suggested Learning Experiences**

<table>
<thead>
<tr>
<th>II. Outside Resource and Community Activities</th>
</tr>
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</table>

**Discipline Area** Language Arts

**Subject** Reading-narrative writing

**Problem Orientation** Attitudes

**Grade** 7
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
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</thead>
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<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>Wisconsin Historical Society,</td>
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<tr>
<td>Articles on Indians, Wisconsin</td>
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<tr>
<td>History</td>
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</tbody>
</table>

**Audio-Visual:**

**Film:**

The Light in the Forest

**Community:**

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<table>
<thead>
<tr>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Society, Wisconsin</td>
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</tbody>
</table>
## Cognitive
The students will be able to analyze information obtained from two states and compare & contrast pollution control efforts in the form of a mobile or collage. After writing to various cities in Wyoming & Wisconsin in the student will specify the effects of population & industry on the environment.

## Affective
After writing to various cities in Wyoming, the student will specify the effects of population & industry on the environment.

## To be Learned
- Comparing & contrasting Letterwriting
- Classroom activity
  - Students can write to Chamber of Commerce in different cities of Wyoming to find out what pollution control efforts are being undertaken in various cities in the state. (Wyoming chosen because of great population variant contrast.)
  - Do the same in Wisconsin.
  - Hold an "open group discussion" to share & compare problems of the two states & how they are being solved.
  - Construct collage expressing a comparison & contrast of the two states & problems.

## Suggested LEAR
### Discipline Area
- Subject
- Problem Orientation
- C. 9. Man has the ability to manage, manipulate, and change his environment.
OBJECTIVE

To analyze pollution control efforts in the form of a letter. Students can write to Chamber of Commerces in different cities of Wyoming to find out what pollution control efforts are being undertaken in various cities in the state. (Wyoming chosen because of great population contrast.)

1. Do the same in home city & cities in Wisconsin.

2. Hold an "open group discussion" to share ideas and compare problems due to population size & industry.

3. Construct collage mobiles expressing a comparison & contrast of the two states efforts and problems.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested</th>
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</thead>
<tbody>
<tr>
<td>Publications:</td>
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<td>Audio-Visual:</td>
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<td>Old magazines</td>
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<td>Community:</td>
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<td>Art teachers</td>
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<td>Chamber of Commerce</td>
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<tr>
<td>State Historical Society</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
</tr>
</tbody>
</table>
Cognitive: Students will participate in class discussion & view a movie to help them write a description of how an action for short-term economic gain can produce long-term environmental loss.

Affective: Students will promote concern for avoiding such exploitation of our resources.

Skills to be Learned
- Critical thinking
- Observation
- Note taking
- Critical writing

BEHAVIORAL OBJECTIVES

SUGGESTED LEARNING EXPERIENCE

I. Student-Centered in class activity

   A. Classroom

   1. Class will discuss the meaning of short-term exploitation of natural resources & resulting long-term losses.

   2. Students tell of examples they have seen or heard of in order to reinforce understanding.

   3. While viewing movies, each student will make notes of short-term gains & long-term losses.

   4. Each student will write a description of how short-term economic gains produce long-term losses in movies.

   5. Discussion prior to viewing movies will draw on previous experiences of students.
**OBJECTIVES**

Students will:

I. Student-Centered in class activity
   A. Classroom
      1. Class will discuss the meaning of short-term exploitation of natural resources & resulting long-term losses.
      2. Students tell of examples they have seen or heard of in order to reinforce understanding.
      3. While viewing movies, each student will make notes of short-term gains & long-term losses.
      4. Each student will write a description of how short-term economic gains produce long-term losses in movies.
      5. Discussion prior to viewing movies will draw on previous experiences of students.

II. Outside Resource and Community Activities
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
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</thead>
<tbody>
<tr>
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<td></td>
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<td>Audio-Visual:</td>
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</table>

Community:
11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

### BEHAVIORAL OBJECTIVES

| Cognitive | Through creative writing, the student will be able to show by specific example the concept of cause, effect, and time. |
| Affective | The students will suggest other examples in their reading of man's activities that have changed the environment. |

### SUGGESTED LEARNING

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skills to be Learned</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>Creative writing</td>
<td>A. Discuss with class the kinds of activities man is engaged in that may, over a period of time, create problems with the environment.</td>
</tr>
<tr>
<td>Creative thinking</td>
<td>B. Discuss what values caused these actions of man.</td>
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<tr>
<td>Creative solutions</td>
<td>1. Man vs. DDT</td>
</tr>
<tr>
<td>Grammar</td>
<td>2. Population explosion</td>
</tr>
<tr>
<td>Reading for information</td>
<td>C. Taking one of man's activities, project possible consequences in the future. (These writings should be based on some degree of authenticity).</td>
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<tr>
<td></td>
<td>D. Give a cause (industry) plus time (100 years), and discuss what could be the effect on the environment.</td>
</tr>
<tr>
<td></td>
<td>E. Writings done could be in the form of journals, documentaries, editorials, satire, and so on.</td>
</tr>
<tr>
<td>OBJECTIVES</td>
<td>SUGGESTED LEARNING EXPERIENCES</td>
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<tr>
<td>Students will be introduced to specific concepts of cause, effect, and change. They will observe examples in how man's activities have changed over time.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>Creative writing will be directed to the concept of change. Students will be asked to describe the kinds of activities man is engaged in that may, over a period of time, create problems with the environment.</td>
<td>A. Discuss with class the kinds of activities man is engaged in that may, over a period of time, create problems with the environment.</td>
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<td>B. Discuss what values caused these actions of man.</td>
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<td>II. Outside Resource and Community Activities</td>
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<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Skills</td>
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<tr>
<td>Publications:</td>
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<tr>
<td>Short stories about, or excerpts from lives of great industrialists,</td>
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<td>etc.</td>
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<td>Biographies</td>
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<td>Encyclopedias</td>
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<td>Industrialists:</td>
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<td>Henry Ford</td>
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<td>Horace Hughes</td>
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<td>John Deere</td>
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<td>Audio-Visual:</td>
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</table>
Cognitive: After writing to various cities in Wyoming and Wisconsin, the student through making a collage or mobile will show the effects of population and industry on environment.

Affective: The student will analyze information obtained from two states and compare and contrast pollution control efforts.

Skills to be Learned
Comparing and contrasting
Letter writing
Interviewing

Discipline Area: Language Arts
Subject: Letter Writing
Problem Orientation: Pollution

I. Student-Centered in class activity
1. Students can write to Chamber of Commerce in Wyoming cities to find out what pollution control efforts are being undertaken in various cities in the state. (Wyoming chosen because of great population contrast)
2. Do the same in home city and cities in Wisconsin.
3. Hold an open group discussion to share ideas and compare problems due to population size and industry.
4. Construct collage, mobiles expressing a comparison and contrast of the two states efforts and problems.
Ownership must be re-stewardship and should not be violated by others or upon the right of others.

Discipline: Area Language Arts Subject: Letter Writing Problem Orientation

Learning Experiences

Grade 7

Outside Resource and Community Activities

Objectives
1. Students can write to the Chamber of Commerce in Wyoming cities to find out what pollution control efforts are being undertaken in various cities in the state. (Wyoming chosen because of great population contrast due to population size and industry.)
2. Do the same in Wisconsin.
3. Hold an open group discussion to share ideas and compare problems in various cities in both states.
4. Construct a collage, mobiles, and other projects to express a comparison of the two states' pollution efforts and problems.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestions</th>
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<tbody>
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<td>Chambers of Commerce</td>
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<td>Continued and Additional Suggested Learning Experiences</td>
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<td>---------------------</td>
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<tr>
<td>Society</td>
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</table>
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

In commenting on each episode used in your class, you may wish to use the following format. Please feel free to adapt it and add more pages. Let us know any specific comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

       
   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In Class:

       
   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

On each episode used in your class, you may wish to duplicate this suggested
feel free to adapt it and add more pages. Let us know all your critiques and
and positive.

Objectives


Learning Experiences


Community Activities


Source & Reference Materials
Suggestions & comments)
A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts  GRADE  8

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin  54301
(414) 432-4338
INSTRUCTION - CURRICULUM - ENVIRONMENT

CTOR ENVIROMENTAL EDUCATION

Arts  Grade  8

E.S.E.A.

3-8-9

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist
If you wish to excite students about their environment, help is of over a hundred teachers, year long meetings, a summer workshop, ecologists, this guide means realistic, developed aid for you. Below which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are designed-to plug into existing, logical course content.

2. Each page or episode offers suggestions. Since you know your class, to adapt, adopt, or use. By design, the range of suggestions for adaptation and usage are even wider. Many episodes are self-contained, others can be changed in part or developed more keenly over a period of possibilities allow you to explore.

3. Now we urge that you try the episodes and suggested learning materials. The reasons are simple. No guide has all the answers and unless viewed in the context of your classroom situation. Thus, give it a triple reading, check over the resources listed, make prime your students, and seek help. The Project personnel and knowledgement page stand ready to aid your efforts. Feel free to visit.

4. The Project Resource Materials Center serves all CESA 3, 8, and private. We will send available materials pre-paid. Call for visit. Phone 432-4338.

5. Check often the Project ICE Bibliography in your school library. Center materials. Please offer suggestions, comments, or advice. Service may grow. Let's help each other.

6. Involve yourself with the guide by reacting to it with scratchpad suggestions on the episode pages or use the attached evaluations collected in late May next year and will be used in our revisions. Reactions and suggestions--negative and positive. Please note in the episodes may refer to specific, local community resources; cases, individual school districts and teachers will have to adapt.

7. Ecologists and other experts have simplified the issue--survival of Creation's beauty and complexity--often noted as the work of a small and human energy to save. A year's work by a hundred of your gesture. Without you, their work will crumble, and so might we. Let us live to think, feel, and act in harmony with our world.

1. Cognitive means a measurable mental skill, ability, or process
2. Affective refers to student attitudes, values, and feelings
3. APE means Acceptable Performance Will Include (labels a core
4. EPA - Environmental Problem Area.
PREFACE

cite students about their environment, help is ready. Thanks to the efforts of teachers, year-long meetings, a summer workshop, university consultants and idea means realistic, developed aid for you. Please note the following ideas teachers in writing and editing this guide.
Supplementary in nature and the episodes are designed—at appropriate instan-
do existing, logical course content.
sole offers suggestions. Since you know your students best, you decide what or use. By design, the range of suggestions is wide; your chances for experi-
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. Please offer suggestions, comments, or advice—at any time—so that this
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t of terms pertinent to the episodes is below.
ther experts have simplified the issue—survival—yours, mine, our students, y and complexity—often noted as the work of a genius—will take our genius to save. A year’s work by a hundred of your fellow teachers is a saving all you, their work will crumble, and so might we all—literally. Instead, think, feel, and act in harmony with our world.
Editorial Board

as a measurable mental skill, ability, or process based on factual data.
ers to student attitudes, values, and feelings.
ts will Include (labels a cognitive or mental performance.)
mental Problem Area.
ACKNOWLEDGEMENTS: The following teachers and consultants part of the Supplementary Environmental Education.

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Ronald Conradt, Shiocton  
Lee Halberg, Appleton  
Ronald Hammond, Hortonville  
Jerome Hennes, Little Chute  
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- George Pederson, Southern Door
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- UW-Bayhards, UW-Marinette
  - David West, Lawrence U.
  - Dennis Bryan, UWGB
**Energy from the sun, the basic source of all energy, is converted through photosynthesis into a form all living things can use for life processes.**

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
</tr>
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<tbody>
<tr>
<td>Cognitive: Through the use of antonyms and the shades of meaning between, the student will reinforce the concept of life's dependence on the sun. Also contribute to the development of vocabulary &amp; knowledge of parts of speech.</td>
</tr>
<tr>
<td>Affective: The student will support the idea that words are related through shades of meaning from one extreme to the opposite extreme (antonym) such as life to death.</td>
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</table>

**Skills to be Learned**
- Word selection
- Organization
- Contrast

**Students working together**

**Discipline Area**

**SUGGESTED DISCIPLINE**

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Through the use of antonyms and the shades of meaning between, the student will reinforce the concept of life's dependence on the sun. Also contribute to the development of vocabulary & knowledge of parts of speech.

**Affective:** The student will support the idea that words are related through shades of meaning from one extreme to the opposite extreme (antonym) such as life to death.

**Skills to be Learned**
- Word selection
- Organization
- Contrast

**Students working together**

1. Student-Centered in classroom activity
   - Diamante—a kind of poem in the shape of a diamond.
     - noun
   - noun
   - adjective
   - adjective
   - participle
   - part.
   - noun
   - noun
   - noun
   - noun
   (Center four nouns related to both antonyms)

**Example**
- life
- green
- bright
- shining
- growing
- blooming
- heat
- motion
- sun
- food
- fading
- slowing
- dimming
- brown
- old
- death
Lin, the basic source

converted through Disclme Area Language Arts

t a comment al. Subject Written Expression-Grammar

use for life processes. (1)

Problem Orientation Energy use Grade 8

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

Diamante-a kind of poem in the shape of a diamond.
	noun

adj. adj.

participle part. part.

noun noun noun noun

participle part. part.

adj. adj.

noun

(Center four nouns related to both antonyms)

Example

life

green bright shining growing blooming heat motion sun food

fading slowing dimming brown old death

II. Outside Resource and Community Activities
<table>
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<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestion</th>
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<td>Books:</td>
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<td>Thesaurus</td>
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<td>Dictionary</td>
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<tr>
<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
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</tbody>
</table>
All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Students will reinforce their concepts of environment by searching for words related to environment. They will expand word recognition and vocabulary at the same time by making a puzzle to be solved by another student.

**Affective:** The student will submit words concerned with ecology which will broaden the concept of ecology and increase concern for the ecosystem.

**Skills to be Learned**

- Use of dictionary
- Reference
- Reading
- Spelling
- Roget's Thesaurus

**SUGGESTED LEAR**

1. Student-Centered in class activity
   1. Prepare a word list concerned with ecology or some sub-division of it. Scramble the letters of these words to make a puzzle, as illustrated below. Each student contributes one or more puzzles to be solved by other students.

**WORD LIST**

- Trees - lake - soil - rain
- Wildlife - grass - air - sun

- wir air ten lor f tis el er fg rass il ide ser n ou i e ou d a b tre es or x r i m l n y zof b sc l k ou si pre ing l d i e f gh f i ng i m j il o la k e x pors o gra in sw rs um
Living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

**ORAL OBJECTIVES**

Students will expand their concepts and vocabulary by searching for words related to environment. They will expand their concept of ecology and increase the number of words that they understand.

**SUGGESTED LEARNING EXPERIENCES**

I. **Student-Centered in class activity**

   1. Prepare a word list concerned with ecology or some sub-division of it. Scramble the letters of these words to make a puzzle, as illustrated below. Each student contributes one or more puzzles to be solved by other students.

**WORD LIST**

Trees - lake - soil - rain
wildlife - grass - air - sun

w r a i r t e n l r o f
t i s e l e r f g r a s s
i l l d e s e r n o u i u u
e o u d a b t r e e s o n
x r i m l n y z o f b s c
l k o u s i p r e i n g l
b d e f g h f i n g l i m
j i l o l a k e x p o r s
o g r a i n s w r s u n m
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<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested Lea</th>
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<tbody>
<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>Newspaper articles</td>
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<tr>
<td>Pamphlets &amp; bulletins on ecology</td>
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<tr>
<td>Stories</td>
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<tr>
<td>Books</td>
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<td>Magazines</td>
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<tr>
<td>National Wildlife</td>
<td></td>
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<tr>
<td>Outdoor Life</td>
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<tr>
<td>Field &amp; Stream</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
<td></td>
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<tr>
<td>Filmstrips (any on environment)</td>
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Commu
<table>
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<tr>
<th>Trial</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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<tr>
<td>Trial</td>
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</table>
Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

### BEHAVIORAL OBJECTIVES

| Cognitive: After reading the novel, the student will list in logical order the steps necessary to establish a wildlife sanctuary. |
| Affective: The student will specify that the carrying capacity of an area is determined by certain ecological factors. The book or movie illustrates these factors. |

### Skills to be Learned
- Arrange facts in a special order
- Research the life cycle of the Canadian goose
- Compare and contrast through various media

### SUGGESTED LEARNING

1. Student-Centered in class activity
   - A. Class oriented activity
     1. Read Paul Annixter's *Swiftwater*.
     2. List the steps in their proper order, the Calloways used to realize the dream of a lifetime of establishing a sanctuary for wild geese which pass over the Maine Woods twice each year.
I. Student-Centered in class activity
   A. Class oriented activity
      1. Read Paul Annixter's Swiftwater.
      2. List the steps in their proper order, the Calloways used to realize the dream of a lifetime of establishing a sanctuary for wild geese which pass over the Maine Woods twice each year.

II. Outside Resource and Community Activities
   A. Out of class
      1. Research the flyway sanctuaries of Wis. Then develop a plan in well-formed paragraphs that will further the species of the Canadian goose.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Books:</strong></td>
<td></td>
</tr>
<tr>
<td>Swiftwater, Paul Annixter</td>
<td></td>
</tr>
<tr>
<td>National Wildlife, Ranger Rick's</td>
<td></td>
</tr>
<tr>
<td><strong>Audio-Visual:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Community:</strong></td>
<td></td>
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<tr>
<td>Reference Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
</tr>
<tr>
<td>--------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td>M. Hennixter</td>
<td>Ranger Rick's</td>
</tr>
</tbody>
</table>
An adequate supply of pure water is essential for life.

Problem Orientation E.E.

BEHAVIORAL OBJECTIVES

Cognitive: Through an outline, the student will evaluate the effects of various forms of water pollution on man's environment in different periods of history.

Affective: The student will challenge or defend the statement that the pollution of man's environment increased in proportion to the development of civilization.

She: Learned

Pick out descriptive phrases

Observe and organize outlining

SUGGESTED LEARNING EXPERIENCE

1. Student-Centered in class activity

II.

1. Read Henry Wadsworth Longfellow's Evangeline, Parts II and III.

2. Develop a list of phrases that depict the author's description of the undisturbed waterway of the Mississippi River of the 18th century.

3. In outline form, evaluate at least four villains of our water supply and their possible solutions.
Adequate supply of pure water is vital for life.

**Discipline Area** | **Language Arts**
---|---
**Subject** | **Evaluation**

**Problem Orientation** E.P.A. Water  Grade 8

---

**SUGGESTED LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th><strong>I. Student-Centered in</strong></th>
<th><strong>II. Outside Resource and Community Activities</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>class activity</td>
<td>1. Observe a stream or river of the community for effects of water pollution and organize findings.</td>
</tr>
<tr>
<td>1. Read Henry Wadsworth Longfellow's Evangeline, Parts II and III.</td>
<td>2. Collect samples from local stream—bring to class—write descriptions of each sample after close observation... touching, smelling, etc.</td>
</tr>
<tr>
<td>2. Develop a list of phrases that depict the author's description of the undisturbed waterway of the Mississippi River of the 18th century.</td>
<td></td>
</tr>
<tr>
<td>3. In outline form, evaluate at least four villains of our water supply and their possible solutions.</td>
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<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggestions</td>
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</tr>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
</tr>
<tr>
<td>&quot;Evangeline&quot; by Henry Wadsworth</td>
<td></td>
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<tr>
<td>Longfellow</td>
<td></td>
</tr>
<tr>
<td>Excerpts from Walden Bond</td>
<td></td>
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<tr>
<td>Excerpts from &quot;The Sea Around Us&quot;</td>
<td></td>
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<tr>
<td>R. Carson - (parts on water's</td>
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<td>origin)</td>
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</tbody>
</table>

**Audio-Visual:**

**Community:**
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wadsworth</td>
<td>Around Us&quot; water's pond</td>
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<tr>
<td></td>
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</tr>
</tbody>
</table>
An adequate supply of clean air is essential because most organisms depend on respiration to supply the oxygen needed to release the energy in their food. (#5)

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive: After reading the novel, the student will identify forms of air pollution in the 19th and 20th centuries through an informative article written to summarize these forms.</td>
</tr>
<tr>
<td>Affective: Using the novel, <em>A Christmas Carol</em>, the student will attempt to contrast air pollution of that time with the present.</td>
</tr>
</tbody>
</table>

Skills to be Learned
- Ability to identify facts.
- Compare and contrast data.
- Write an article.

<table>
<thead>
<tr>
<th>SUGGESTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Student-Centered class activity</td>
</tr>
<tr>
<td>1. Read Dickens' <em>A Christmas Carol</em> &quot;Marley's Ghost&quot;</td>
</tr>
<tr>
<td>2. Identify the various sources of air pollution of London to the 20th century air pollution of our area.</td>
</tr>
</tbody>
</table>
The supply of clean air is essential because most organisms depend on it to release the energy stored in their food. (#5)

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Language Arts</th>
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<tbody>
<tr>
<td>Subject</td>
<td>Written Expression</td>
</tr>
<tr>
<td>Problem Orientation</td>
<td>E.P.A. Air</td>
</tr>
<tr>
<td>Grade</td>
<td>8</td>
</tr>
</tbody>
</table>

**OBJECTIVES**

- After reading the informative article summarizing these facts, the student will identify facts and contrast data.
- Using the novel, *A Christmas Carol*, the student will attempt to contrast the pollution of that time present.

**SUGGESTED LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Read Dickens' <em>A Christmas Carol</em></td>
<td>1. Observe the presence of air pollution by the senses of sight and smell in our locality.</td>
</tr>
<tr>
<td>&quot;Marley's Ghost&quot;</td>
<td>2. Collect photographs of local and national pollution.</td>
</tr>
<tr>
<td>2. Identify the various sources of air pollution of London to the 20th century air pollution of our area.</td>
<td></td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Information</td>
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</tr>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
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<tr>
<td>Charles Dickens'</td>
<td></td>
</tr>
<tr>
<td>&quot;A Christmas Carol&quot;</td>
<td></td>
</tr>
<tr>
<td><strong>Audio-Visual:</strong></td>
<td></td>
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<tr>
<td><strong>Community:</strong></td>
<td></td>
</tr>
<tr>
<td>Resource Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
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<tr>
<td>--------------------</td>
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</tbody>
</table>

251
6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic, subject, and quality of life. Environmental Objectives

Cognitive: By the use of posters, speeches, letters, and planning in a class meeting, the students will develop a project for the collecting of cans & bottles for recycling.

Affective: The students will evaluate the amount of materials used by a household & community. Each time they prepare a can or bottle for recycling, they will be promoting concern for conservation of material resources.

Skills to be Learned
Organization & planning of a cooperative effort. Conducting a meeting & involving every member of a group

Suggested Learning Experiences
I. Student-Centered in class activity
II. Student-Centered in class activity
resources are not equally
over the earth or over

Discipline

Language Arts

reatly affect the geographic

Subject

Oral Expression

Problem Orientation

Natural

Resources

Grade 8

nal Objectives

I. Student-Centered in class

SUGGESTED LEARNING EXPERIENCES

by the use of

activity

I. Outside Resource and

II. Outside Resource and

Student-Centered in class

Community Activities

1. Make arrangements for
disposing of bottles & cans
collected, i.e. establish
a business relation with
a collecting point.

2. Learn how to sort materials
according to salvage speci-
fications.

3. Learn to identify materials.

4. Pursue the steps through
which salvage materials
pass in producing a new
product.

5. Be alert to any other
waste materials & possi-
bilities for recycling.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
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<tr>
<td>30 Basic Speech Experiences, Clark Publishing Co.</td>
<td></td>
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<tr>
<td>newspapers</td>
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<tr>
<td>magazines</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Community:</strong></td>
<td></td>
</tr>
<tr>
<td>resource people who are connected with any phase of recycling of salvage materials</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
</tr>
<tr>
<td>-----------------</td>
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<tr>
<td>Claxton's Rules</td>
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</tbody>
</table>
7. Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** By writing an editorial, each student will express his opinion on how increased leisure time & the use of snowmobiles have influenced change in land use in his locality.

**Affective:** The student will defend his own feelings on the issue that land use is being changed by the use of snowmobiles.

**Skills to be Learned**
- Identifying the editorial style of writing
- Writing in the editorial style

**SUGGESTED LEARNING ACTIVITY**

I. Student-Centered classroom activity

A. Classroom

1. Examples of editorials will be presented to the students.
2. Class will discuss the editorial style writing compares with other expository writing.
3. Each student will express his own opinion concerning the change in land use by snowmobiles.
4. Editorials will be published as a class newspaper.
such as facilitating transportation, conditions, population growth, Discipline Area Language Arts Writing (editorials)

writing an article about leisure time have a great Subject Problem Orientation Land Use Grade 8 population density.

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
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<tbody>
<tr>
<td>A. Classroom</td>
<td></td>
</tr>
<tr>
<td>1. Examples of editorials will be presented to the students.</td>
<td></td>
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<tr>
<td>2. Class will discuss how the editorial style of writing compares with other expository writing.</td>
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</tr>
<tr>
<td>3. Each student will express his own opinion concerning the change in land use by snowmobiles.</td>
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<tr>
<td>4. Editorials will be published as a class newspaper.</td>
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Learned the editorial writing

the editorial
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<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested</th>
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<tbody>
<tr>
<td>Publications:</td>
<td></td>
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<tr>
<td>Newspapers</td>
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</table>

**Audio-Visual:**

**Community:**

255
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
</table>

255
C 8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Students will picture an example of pollution in his own personal environment by a collage. By another collage, he will propose a possible solution to this pollution problem.

**Affective:** Students will share with other individuals the idea that most pollution problems can be resolved.

**Skills to be Learned**
- Observation
- Brainstorming
- Collage
- Interview
- Gathering Illustrations

**SUGGESTED LEARNING**

<table>
<thead>
<tr>
<th>1. Student-Centered class activity</th>
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<tbody>
<tr>
<td>SUBJECTIVES</td>
</tr>
<tr>
<td>-------------</td>
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</tbody>
</table>
| I. Student-Centered in class activity  
1. Collect illustrations to portray problems & solutions by use of a collage. | II. Outside Resource and Community Activities  
1. Observe the local environment and list the examples of pollution observed.  
2. Determine as many solutions as possible by discussing with parents and others or by brainstorming in class.  
3. Interview local citizens who are associated with a pollution problem. (Tape record or take notes) It would be desirable to get as many points of view as possible. The object of interviews would be to become aware of problems and possible solutions. |

- Economic, social, and political factors determine status and attitudes towards the environment.

- Discipline Area: Language Arts  
Subject: Language Arts  
Problem Orientation: Attitudes  
Grade: 8
Resource and Reference Materials

Publications:
papers and magazines

Audio-Visual:
any appropriate poster materials
original creations to supplement illustrations, if needed

Community:
interview local citizens
<table>
<thead>
<tr>
<th>Goals</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
</table>

257
C 9. Man has the ability to manage, 

O N manipulate, and change his 

C E environment. 

BEHAVIORAL OBJECTIVES

Cognitive: Through observation, organization & communication, the students will provide a series of graphic illustrations to portray a change in the environment.

Affective: The student will survey the changes in the environment produced by man's activities & the created effects which might be beneficial or destructive or both.

Skills to be Learned

Observing
Communicating by vision & words
Organizing sequence
Photography
Drama

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
A. Classroom activity
1. The class may want to make a list of sites to observe such as:
   a. Installation of sewerage disposal system.
   b. Any building construction site.
   c. Development of a wildlife sanctuary.
   d. Building or altering of a road or highway.
   e. Conservation practices in connection with a lake or stream.
   f. Beautification of any lake, stream, any grounds, lawn, park, wayside, etc.
   g. Fish hatchery or wild game farm.
<table>
<thead>
<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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</table>

**I. Student-Centered in class activity**

**A. Classroom activity**

1. The class may want to make a list of sites to observe such as:
   - a. Installation of sewerage disposal system.
   - b. Any building construction site.
   - d. Building or altering of a road or highway.
   - e. Conservation practices in connection with a lake or stream.
   - f. Beautification of any lake, stream, any grounds, lawn, park, wayside, etc.
   - g. Fish hatchery or wild game farm.

**II. Outside Resource and Community Activities**

1. Local project
   1. Select a construction project to take place in the local vicinity.
   2. Observe the site prior to any change & photograph (slides) areas to be changed. Use students to pose & direct attention to selected features.
   3. Do the same during development operations.
   4. Continue recording, by photographic slides, after changes are complete.
   5. Plan & execute narration by tape recordings with student voices or printed captions.
   6. Emphasis is to be placed on ecological effects, pro & con.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continue and Additional Suggestions</th>
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<tbody>
<tr>
<td>Publications:</td>
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</table>

**Audio-Visual:**

**Community:**
<p>| Materials | Continued and Additional Suggested Learning Experiences |</p>
<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive:</strong> Through a debate-form discussion, the student will develop an awareness that there is more than one point of view to any issue. Affective: The student's will actively participate in a recycling project in their community.</td>
<td></td>
</tr>
<tr>
<td><strong>Skills to be Learned</strong></td>
<td><strong>I. Student-centered in class activity</strong></td>
</tr>
<tr>
<td>Reference reading</td>
<td>1. With the help of current publications, define the term of &quot;recycling,&quot; for example, cans and bottles.</td>
</tr>
<tr>
<td>Organizing a debate</td>
<td>2. Divide the class in two groups. One group will expand all possible advantages to recycling and the other group the disadvantages.</td>
</tr>
<tr>
<td>Participating in a debate</td>
<td>3. Upon collecting all materials and facts, a debate-form discussion will follow.</td>
</tr>
</tbody>
</table>
I. Problem Orientation

Recycling

Grade 8

Discipline Language Arts

Subject Debate

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered In Class Activity

1. With the help of current publications, define the term of "recycling," for example, cans and bottles.

2. Divide the class in two groups. One group will expand all possible advantages to recycling and the other group the disadvantages. Read and collect all possible materials and facts, a debate-form discussion will follow.

3. Upon collecting all materials and facts, a debate-form discussion will follow.

II. Outside Resource and Community Activities

a. The student's project will expand all possible advantages to recycling and the other group the disadvantages.

b. A debate-form discussion will follow.
### Resource and Reference Materials

<table>
<thead>
<tr>
<th>Publications</th>
<th>Continued and Additional Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Speech Experiences, Clark Publishing Co.</td>
<td></td>
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<tr>
<td>Speaking By Doing, National Textbook Co.</td>
<td></td>
</tr>
<tr>
<td>Magazines and other current publications</td>
<td></td>
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</tbody>
</table>

### Audio-Visual:
- Debate film

### Community:
- Local newspapers
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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<tbody>
<tr>
<td>Sample</td>
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<tr>
<td>Clark</td>
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<td>Tent</td>
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<tr>
<td>Screen</td>
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<tr>
<td>Current</td>
<td></td>
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<tr>
<td>Temporary</td>
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</tbody>
</table>
11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** By research and interview, the students will through critical thinking realize that there is more than one point of view on an issue.

**Affective:** The student will accept or challenge another point or view.

**Skills to be Learned**
- Speaking: Role playing
- Listening
- Critical thinking
- Ability to organize information

**SUGGESTED LEARNING EXPERIENCE**

I. Student-Centered in class activity

II. Outside Community

1. Classroom or small group discussions
2. Mock interviews
3. Deliberative problem-solving
4. Student-presented perspectives on an issue
   a. a.
   b. b.
   c. c.
   d. d.
   e. e.
   f. f.
<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
<td>II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td>Search through a variety of resources to understand a complex challenge.</td>
<td>1. Collect newspaper and magazine articles on a subject.</td>
</tr>
<tr>
<td>I. Solve problems by collecting data and analyzing information.</td>
<td>2. Make notes on newscasters and commentators.</td>
</tr>
<tr>
<td>Grade 8 students can learn about pollution through hands-on activities.</td>
<td>3. Discuss issues with people in all walks of life.</td>
</tr>
<tr>
<td>Explore the impact of human activities on the environment.</td>
<td>4. Search out and interview people who are authorities on a subject such as:</td>
</tr>
<tr>
<td>- Kinds of detergents</td>
<td>a. Kinds of detergents</td>
</tr>
<tr>
<td>- Use of public waters</td>
<td>b. Use of public waters</td>
</tr>
<tr>
<td>- Use of pesticides</td>
<td>c. Use of pesticides</td>
</tr>
<tr>
<td>- Use of herbicides</td>
<td>d. Use of herbicides</td>
</tr>
<tr>
<td>- Use of fuels</td>
<td>e. Use of fuels</td>
</tr>
<tr>
<td>- Kinds of power plants</td>
<td>f. Kinds of power plants</td>
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<td>Resource and Reference Materials</td>
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<td>Magazines</td>
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<td><strong>Audio-Visual:</strong></td>
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<tr>
<td>Radio</td>
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<tr>
<td>TV</td>
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<tr>
<td><strong>Community:</strong></td>
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<tr>
<td>Letter writing</td>
<td></td>
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<tr>
<td>Interviews</td>
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<tr>
<td>Reference Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
</tr>
<tr>
<td>---------------------</td>
<td>--------------------------------------------------------</td>
</tr>
</tbody>
</table>

263
12. Private ownership must be regarded as a stewardship and discipline area. Language should not encroach upon or violate the individual right of others.

**BEHAVIORAL OBJECTIVES**

Cognitive: After finding newspaper or magazine articles which are examples of conflict between private ownership & the rights of others, students will discuss the rights of individuals.

Affective: Students will accept the human value of considering the rights of private ownership & rights of public domain.

Skills to be Learned
- Reading
- Discussion

**SUGGESTED LEARNING**

I. Student-Centered in class activity
II.
Ownership must be stewardship and touch upon or violate right of others.

**Discipline Area** Language Arts  
**Subject** Newspaper Reading  
**Problem Orientation** Ownership  
**Grade** 8

### OBJECTIVES

| I. Student-Centered in class activity | II. Outside Resource and Community Activities  
|--------------------------------------|--------------------------------------------|
| 1. After completing a newspaper unit, the students could search for articles in various papers & magazines that would relate to the concept.  
2. Each student will read the article he found.  
3. The class will discuss whose rights and who's right. | A. Library  

### SUGGESTED LEARNING EXPERIENCES
Resource and Reference Materials

<table>
<thead>
<tr>
<th>Publications</th>
<th>Continued and Additional Suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand County Almanac by Aldo Leopold.</td>
<td></td>
</tr>
<tr>
<td>Balentine Books: not reference for students but for teacher preparation</td>
<td></td>
</tr>
<tr>
<td>Newspapers</td>
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<tr>
<td>Magazines</td>
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Audio-Visual:

Community:
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</tbody>
</table>

265
In commenting on each episode used in your class, you may work in your own format. Please feel free to adapt it and add more pages. Let us receive your comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In-Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

Please feel free to adapt it and add more pages. Let us know all your critiques and positive.

Objectives

Learning Experiences

& Community Activities

Resource & Reference Materials
(suggestions & comments)
A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA  Language Arts   GRADE  9

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin  54301
(414) 432-4338

Robert W
Robert K
George H
PROGRAM FOR ENVIRONMENTAL EDUCATION

Language Arts  GRADE  9

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist
PREFACE

If you wish to excite students about their environment, help is at hand. Over a hundred teachers, year long meetings, a summer workshop, ecologists, this guide means realistic, developed aid for you. Please note which have directed teachers in writing and editing this guide.

1. This guide is supplementary in nature and the episodes are designed--to plug into existing, logical course content.

2. Each page or episode offers suggestions. Since you know your school, to adapt, adopt, or use. Be design, the range of suggestions is almost limitless--to plug into existing, logical course content. Many episodes are self-contained--to plug into existing, logical course content. Others can be changed in part or developed more keenly over a period of time. Possibilities allows you to explore.

3. Now we urge that you try the episodes and suggested learning experiences. The reasons are simple. No guide has all the answers and no guide will do unless viewed in the context of your classroom situation. Thus, give it a triple reading, check over the resources listed, make up your own experiments--to plug into existing, logical course content. Prime your students, and seek help. The Project personnel and the Acknowledgement page stand ready to aid your efforts. Feel free to use the guide.

4. The Project Resource Materials Center serves all CESA 3, 8, and private. We will send available materials pre-paid. Call for an appointment. Phone 432-4338.

5. Check often the Project ICE Bibliography in your school library. You may have to adapt, adopt, or use. Be design, the range of suggestions is almost limitless. Please offer suggestions, comments, or advice. The list of resources may grow. Let's help each other.

6. Involve yourself with the guide by reacting to it with scratch suggestions on the episode pages or use the attached evaluation forms collected in late May next year and will be used in our revisions. Reactions and suggestions--positive and negative. Please note that the episodes may refer to specific, local community resources. In some cases, individual school districts and teachers will have to adapt, adopt, or use. Be design, the range of possibilities allows you to explore. A list of terms pertinent to the episodes is below.

7. Ecologists and other experts have simplified the issue--survival of Creation's beauty and complexity--often noted as the work of a generation. Without you, their work will crumble, and so might we. Let us live to think, feel, and act in harmony with our world.

I. Cognitive means a measurable mental skill, ability, or process.
2. Affective refers to student attitudes, values, and feelings.
3. APWI means Acceptable Performance Will Include (labels a cog...)
4. EPA - Environmental Problem Area.
PREFACE

excite students about their environment, help is ready. Thanks to the efforts of teachers, year long meetings, a summer workshop, university consultants and guide means realistic, developed aid for you. Please note the following ideas teachers in writing and editing this guide.

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page stand ready to aid your efforts. Feel free to ask their help in pre-planning.

Resource Materials Center serves all CESA 3, 8, and 9 area schools--public and will send available materials pre-paid. Call for any help, materials, or to 432-4338.
The Project ICE Bibliography in your school library for available Resource

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Editorial Board
means a measurable mental skill, ability, or process based on factual data.
refers to student attitudes, values, and feelings.
acceptable Performance Will Include (labels a cognitive or mental performance.)

mental Problem Area.
ACKNOWLEDGEMENTS: The following teachers and consultants part of the Supplementary Environmental Education

**CESA #3**
- Eugene Anderson, Peshtigo
- Laura Berken, Oconto Falls
- Willard Collins, Crivitz
- John Cowling, Niagara
- Nicholas Dal Santo, Pembine
- Robert Dickinson, Oconto
- Ann Fuhrmann, Marinette
- Lillian Goddard, Coleman
- William Harper, Lena
- Robert Herz, St. James (L)
- Ester Kaatz, Wausaukeee
- Michael Kersten, Suring
- Douglas Koch, Cath. Central
- Donald Marsh, Bonduel
- David Miskulin, Goodman
- Don Olsen, Shawano
- Elmer Schabo, Niagara
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- David Bell, Neenah
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- Lee Halberg, Appleton
- Ronald Hammond, Hortonville
- Jerome Hennes, Little Chute
- Barbara Huth, Menasha
- Darrell Johnson, Hortonville
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- John Little, Winneconne
- Gordon Rohloff, Oshkosh
- William Schaff, St. Joseph
- Doris Stehr, Mt. Calvary (L)
- Carolyn Shills, New London
- Sister Dorothy, Xavier
- Clarence Trentlage, Freedom
- Mike Hawkins, Xavier
- Beth Hawkins, Xavier
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- Connie Peterson, St. Martin (L)
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- Ron Schreier, Omro

**Consultant Staff**
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- Ednajean Purcell, OSU
- Charles Richards, UW-Marinette
- David West, Lawrence U.
The following teachers and consultants participated in the development of the Supplementary Environmental Education Guide:

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- Santoro, Pembine
- Johnson, Oconto
- Marinette
- Sard, Coleman
- Per, Lena
- St. James (L)
- Wausaukee
- Sten, Suring
- Cath, Central
- Lin, Goodman
- Shawano
- New, Niagara
- Gillett
- Crivitz
- King, Marinette
- Bridge, White Lake
- Musi, White Lake
- Lena
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- Mike Hawkins, Xavier
- Beth Hawkins, Xavier
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- Dallas Werner, Kaukauna
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- Angela Anthony, Gibraltar
- Harold Baeten, St. Norbert
- Anthony Balistreri, Howard-Suamico
- Lillian Berges, Seymour
- Carmella Blecha, Green Bay
- Joan Charnetski, Sevastopol
- Billie Feichtinger, Green Bay
- Rev. B. Frigo, Abbot Penning
- Robert Haen, Luxemburg-Casco
- Russ Hanseter, Seymour
- Paul Kane, Ashwaubenon
- Roy Lukes, Gibraltar
- Sister Anna, St. Philips
- Jim Maki, Sturgeon Bay
- Joyce Mateju, Algoma
- Richard Minten, W. DePere
- Gloria Morgan, Linsmeier Private
- George Pederson, Southern Door
- Alan Schuh, Pulaski
- Thomas Weyers, Cathedral
- Ruth Windmuller, Green Bay
- James Wiza, DePere
- John Torgerson, Kewaunee
- Benjamin Roloff, Howard-Suamico
- Greg Schmitt, Cathedral
- John DeWan, Green Bay
- Emmajean Harmann, Sevastopol
- Ray Gantenbein, Green Bay
- David Bartz, Sturgeon Bay
- John Hussey, Green Bay
- Sister Barbara, St. Bernard

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- Teachers, UW-Marinette
- Ednajean Purcell, CSU
- David West, Lawrence U.

- Robert Cook, UWGB
- Dennis Bryan, UWGB
1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

**BEHAVIORAL OBJECTIVES**

<table>
<thead>
<tr>
<th>Cognitive: The student will be able to compare &amp; contrast modern &amp; ancient concepts of sun and of god and write an essay illustrating the importance of the sun on his life through the study of mythology.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective: Using brainstorming, research, interviewing, theme writing, &amp; teamwork, students will understand the importance of the sun in their own lives.</td>
</tr>
</tbody>
</table>

**SKILLS TO BE LEARNED**

- List in importance
- Formulate reasons
- Research
- Construct a chart
- Survey & interview
- Compare & contrast
- Write an essay

**SUGGESTED LEARNING**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Form the students in &quot;brainstorming&quot; groups to list natural phenomenon or resources which they think are important to them.</td>
</tr>
<tr>
<td>2. After formulating a list, let each group come up with the three most important resources along with reasons why they are important.</td>
</tr>
<tr>
<td>3. Let each group have a spokesman who presents the list and the reasons for selection.</td>
</tr>
<tr>
<td>4. Present Greek &amp; Roman gods and what they stand for. Stress the importance of Phoebes Apollo, the sun god, and the ancient idea of a god, why did they construct the various mythological gods.</td>
</tr>
<tr>
<td>5. Construct a chart showing the various things that were dependent on the sun during ancient times.</td>
</tr>
<tr>
<td>6. Compare &amp; contrast the ancient and modern concepts of the sun &amp; of god. Determine (Cont.)</td>
</tr>
</tbody>
</table>
The sun, the basic source

converted through Discipline Area Language Arts
sis into a form all Subject Mythology
use for life pro-
cesses. Problem Orientation Energy Use Grade 9

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SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
1. Form the students in "brainstorming" groups to list natural phenomenon or resources which they think are important to them.
2. After formulating a list, let each group come up with the three most important resources along with reasons why they are important.
3. Let each group have a spokesman who presents the list and the reasons for selection.
4. Present Greek & Roman gods and what they stand for. Stress the importance of Phoebes Apollo, the sun god, and the ancient idea of a god, why did they construct the various mythological gods.
5. Construct a chart showing the various things that were dependent on the sun during ancient times.
6. Compare & contrast the ancient and modern concepts of the sun & of god. Determine (cont.)

II. Outside Resource and Community Activities
1. Do research in library why the Greeks & Romans worshipped the sun & made it into a god. Read stories of Apollo & other gods.
2. Have the class survey various people to procure their concepts of the sun & of god. Present findings in class.
3. Have students tape interviews with members of the community relative to the importance of the sun & weather to their business.
### Resource and Reference Materials

<table>
<thead>
<tr>
<th>Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ancient Myths, Norma L. Goodrich. Mentor paperback.</td>
</tr>
<tr>
<td>Outlooks Through Literature, Pooly, Scott, Foresman.</td>
</tr>
<tr>
<td>Understanding Literature, Wofford, Ginn &amp; Co.</td>
</tr>
</tbody>
</table>

### Continued and Additional Suggested Learning

1. (Cont.)
   - Which concept is more valid.
2. Teacher inform students that the sun makes us appreciate the sun and...
3. Students will evaluate their interest in how things are dependent on the sun.
4. In a theme, the students will discuss the effects of sunlight if sunlight no longer illuminates them...
5. The students will read stories of how sunlight is essential to their lives...
6. Teacher will show filmstrips with...
Continued and Additional Suggested Learning Experiences

<table>
<thead>
<tr>
<th>I. (Cont.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>which concept is more valid.</td>
</tr>
<tr>
<td>7. Teacher inform students that the value of myths is that it makes us appreciate the sun and other resources.</td>
</tr>
<tr>
<td>8. Students will evaluate their interviews for logic &amp; how things are dependent on the sun.</td>
</tr>
<tr>
<td>9. In a theme, the students will discuss what would happen to them if sunlight no longer illuminated the earth.</td>
</tr>
<tr>
<td>10. The students will read stories of gods. Then the teacher will show filmstrips with students narrating them extemporaneously through their knowledge.</td>
</tr>
</tbody>
</table>
2. All living organisms interact among themselves and their environment, forming an intricate unit called an **ecosystem.**

**BEHAVIORAL OBJECTIVES**

**Cognitive:** After studying the school as a miniature ecosystem, each student will present a formal speech illustrating the relationship within another ecosystem.

**Affective:** Using research and teamwork, students will understand the complexities of an ecological problem as demonstrated by the formulation of an ecosystem.

**Skills to be Learned**

- Research
- Organize
- Cooperate
- Develop cause and effect relationships

**SUGGESTED LEARNING ACTIVITY**

1. **Student-Centered in class activity**
   - Bring in resource person (could be science teacher) to explain the concept in a formal speech. Discuss the organization of the presented speech and the meaning of the concept.

2. **Show how the school is a miniature ecosystem.** Have students interview various teachers, administrators, coaches, cooks, janitors, office help, and other students. In interviews, students will try to determine on whom and on what each person is dependent, who or what is dependent on this person, and with whom or what each person interacts and associates. Students will pool their findings in class and with the teacher's assistance, formulate the ecosystem of their school.

(cont.)
Ang organisms interact with themselves and their environment, forming an intricate unit called an ecosystem.

**Discipline Area**: Language Arts  
**Subject**: English  
**Problem Orientation**: Ecosystem  
**Grade**: 9

### GENERAL OBJECTIVES

After studying the concept of an ecosystem, each student will illustrate the concept in a formal speech. Students will demonstrate their understanding by researching and the concept in group discussions and individual work, as demonstrated by participation in class discussions.

### LEARNED

Use and effect

### SUGGESTED LEARNING EXPERIENCES

#### I. Student-Centered in class activity
1. Role in resource person (could be science teacher), to explain the concept in a formal speech. Discuss the organization of the presented speech and the meaning of the concept.

#### II. Outside Resources and Community Activities
2. Show how the school is a miniature ecosystem. Have students interview various teachers, administrators, coaches, cooks, janitors, office help and other students. In interviews students will try to determine on whom and on what each person is dependent. Some or what is dependent on this person, and with whom or what each person interacts and associates. Students will pool their findings in class and with the teacher’s assistance, formulate the ecosystem of their school.

(continued)
Resource and Reference Materials

Publications:
- "Speaking By Doing"
  National Textbook Co.
  Skokie, Ill.
Magazine:
- "Vital Speeches"

Audio-Visual:
- Filmstrip: "Man-Managed Ecosystems"
  McGraw-Hill
Bulletin board display

Community:
- Science teacher or university teacher knowledgeable of ecosystems.

Continued and Additional Suggested

1. (cont.)

3. Each student will pick one member (living, plant or animal) with which to work. In the speech, each student will explain factors to the selected member.

4. Research period in the library to find factors which are to be associated with the ecosystem. Class period to discuss factors and to organize scheme of ecosystem. Teacher will appoint one member of each生态系统.

5. One person from each group will present data each day.

6. Class will make comments on the presentation.

7. Have class try to relate each ecosystem to the others in the system.

8. Have a member from each of the groups growing ecosystems daily so that they can see the growing interaction of the ecosystems.

9. As a final activity, someone outside the class beyond the scope of the project may wish to relate.

Options are:
- student
- teacher and student team
- resource person
3. Each student will pick one member of the ecosystem (non-living, plant or animal) with which to develop a speech. In the speech, each student will relate two additional factors to the selected member of the ecosystem.

4. Research period in the library to discover the two reliable factors which are to be associated with the chosen member of the ecosystem. Class period to share research findings and to organize scheme of ecological topics in the order of appearance. Teacher will assign the order of appearance and appoint one member of each group to chart the growing of the ecosystem.

5. One person from each group will present his formal speech each day.

6. Class will make comments on students' presentations.

7. Have class try to relate ecosystems to each other at end of #7.

8. Have a member from each of the three groups chart the growing ecosystems daily so that students visually see the growing interaction of the ecosystems.

9. As a final activity, someone will summarize and/or extrapolate beyond the scope of the three ecosystems presented. Options are:
   - student
   - teacher and student team
   - resource person
C 3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

BEHAVIORAL OBJECTIVES
Cognitive: The student will be able to pick out examples of overloading the carrying capacity of some area & to express this misuse of the environment through the presentation of a TV commercial.

Affective: The student will display his understanding that an area can support only a limited number of organisms, through a satirical commercial highlighting the problem.

Skills to be Learned
- Critical observation of community
- Analyze & evaluate
- Write persuasively
- Speak clearly & persuasively with the aid of props

SUGGESTED LEARNING ACTIVITY
I. Student-Centered in class activity
   A. Class
      1. Play record of America the Beautiful, along with pictures or slides of how man has exceeded or disrupted the carrying capacity of his environment.
      2. Cram the student's desk in as small an area as possible. Analyze what overloading of the carrying capacity can do. Compare the class setup to city form setup or what an overpopulated area does to its environment.
      3. Analyze some current TV commercials as to style, information, wording, plots, etc., so students can write a commercial which is environmentally oriented.
      4. Write a TV commercial, e.g., cutting auto production; clean water; returnable bottles; & population control.
      5. Present commercials or class with appropriate
I. Student-Centered in class activity
   A. Class
      1. Play record of America, the Beautiful, along with pictures or slides of how man has exceeded or disrupted the carrying capacity of his environment.
      2. Cram the student's desks in as small an area as possible. Analyze what overloading of the carrying capacity can do. Compare the class setup to city-form setup or what an overpopulated area does to its environment.
      3. Analyze some current TV commercials as to style, information, wording, props, etc. so students can write a commercial which is environmentally oriented.
      4. Write a TV commercial, i.e. Cutting auto production; clean water; returnable bottles; & population control.
      5. Present commercials orally in class with appropriate props.

II. Outside Resource and Community Activities
   A. Outside work
      1. Have students observe in their community & come up with overloading of carrying capacity. (traffic jams, overcrowded slums, water pollution, etc.)
Resource and Reference Materials

Publications:

Audio-Visual:
Newspaper, TV & Radio Commercials
Slide projector
Record player
35 mm camera - take slides for activities
Various props, such as pictures or facsimiles of products, etc.

Community:
4. An adequate supply of pure water is essential for life.

**Concept**

**Behavioral Objectives**

- **Cognitive:** The student will be able to associate pure water with life as shown by his prepared reading.
- **Affective:** Using prepared reading, student will understand the necessity of an adequate supply of pure water as shown by his research and discussion of written materials dealing with the subject.

**Skills to be Learned**
- Clear voice control
- Eye contact
- Oral interpretation

**Suggested Learning Activities**

1. Student-Centered in class activity
   - **A. Class activity**
     1. Students & teachers will discuss what makes an effective reading, such as the need for preparation, for fluency, for modulating the voice, projecting, & making a good appearance (stand erect, hands out of pockets, etc.).
     2. Students will select a newspaper article, poem, story, or original writing and emphasize man's or animal's need for pure water.
     3. Students will present their readings to the class.
     4. The reader will lead the class in analyzing & evaluating critically, the content of the story.
     5. Class will pick the 3 best readings which could be presented in other English classes.
**Problem Orientation:** Pure Water

**Grade:** 9

**Discipline Area:** Language Arts

**Subject:** Speech - Readings

---

### Objectives

<table>
<thead>
<tr>
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### Suggested Learning Experiences

| II. Outside Resource and Community Activities |

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<thead>
<tr>
<th>Audio-Visual:</th>
<th>Continued and Additional Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Film:</strong></td>
<td></td>
</tr>
<tr>
<td><em>Still Waters</em>, as described in:</td>
<td></td>
</tr>
<tr>
<td>An Annotated Checklist of 200</td>
<td></td>
</tr>
<tr>
<td>Short Films for Writing Classes,</td>
<td></td>
</tr>
<tr>
<td>Ill. Assc. of Teachers of English</td>
<td></td>
</tr>
<tr>
<td>Urbana, Ill.</td>
<td></td>
</tr>
<tr>
<td><strong>Filmstrip:</strong></td>
<td></td>
</tr>
<tr>
<td><em>Crisis of the Environment</em>, The</td>
<td></td>
</tr>
<tr>
<td>filmstrips &amp; records)</td>
<td></td>
</tr>
</tbody>
</table>

**Community:**
Continued and Additional Suggested Learning Experiences

The English

200

assessments English

The

in:
An adequate supply of clean air is essential because most organisms depend on oxygen through respiration, to release the energy in their food.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The student will be able to discuss the need for clean air as demonstrated by giving a speech before the class.

**Affective:** Using the approach of the continued story, students will be able to relate what happens when there is no longer a supply of clean air.

**Skills to be Learned**
- Poise and continuity of thought using ecological material
- Reasoning out the food chain

**SUGGESTED LEARNING EXPERIENCES**

1. **Student-Centered in class activity**
   - Teacher should compile a list of words dealing with air pollution, lack of oxygen, and death (e.g., diseased, morbid, tainted, poisoned, withered, rotten, shrivel, palsied).
   - Teacher will start telling a story of man's annihilation due to lack of clean air, which students will continue, using the selected words. Students will be required to talk at least one minute.

2. **Class-discussion should follow focusing on man's need for clean air.**

3. **Possible activity:**
   - Creative writing:
     - Existence in a world without automobiles
     - Science fiction-life on an airless planet.
A limited supply of clean air is essential because most organisms obtain oxygen through respiration, thereby harnessing the energy in their food.

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Language Arts</th>
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</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Impromptu Speaking</td>
</tr>
<tr>
<td>Problem Orientation</td>
<td>Clean Air</td>
</tr>
<tr>
<td>Grade</td>
<td>9</td>
</tr>
</tbody>
</table>

**OBJECTIVES**

The student will:

1. Discuss the importance of clean air in respiration.
2. Give examples of how clean air is used by organisms to obtain energy.
3. Continue discussing the consequences of air pollution.
4. Require students to talk for at least one minute on the topic.
5. Engage in class discussion focusing on the importance of clean air.
6. Make an overhead transparency concentrating on this problem.
7. Engage in possible activities: creative writing.
   - Existence in a world without automobiles
   - Science fiction: life on an airless planet.

**SUGGESTED LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>3. Class discussion should follow, focusing on man's need for clean air.</td>
</tr>
<tr>
<td>4. With aid of students, teacher will make an overhead transparency concentrating on this problem.</td>
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<tr>
<td>5. Possible activity: creative writing.</td>
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</tbody>
</table>
   - Existence in a world without automobiles
   - Science fiction: life on an airless planet. |

<p>| II. Outside Resource and Community Activities |</p>
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
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<tr>
<td>Roget's Thesaurus</td>
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<tr>
<td>newspaper articles</td>
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<td>30 Basic Speech Experiences,</td>
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<tr>
<td>Clark Publishing</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
<td></td>
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<tr>
<td>Overhead transparencies</td>
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<td></td>
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<tr>
<td><strong>Community:</strong></td>
<td></td>
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<tr>
<td>Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
</tr>
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<td>-----------</td>
<td>--------------------------------------------------------</td>
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</tbody>
</table>

- [List of materials and suggested learning experiences]
C 6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

BEHAVIORAL OBJECTIVES

Cognitive: The student will be able to demonstrate in writing the ability to distinguish man's points from supporting statements in paragraph writing, e.g. paragraph about concept #6.

Affective: The student, by arranging a group of sentences dealing with natural resources in proper order to make a coherent paragraph, will not only show his understanding of writing skills, but will also show his awareness of natural resources and how they affect geographic conditions through the discussion of the topic.

Skills to be Learned
Be able to distinguish the main parts in a paragraph about concept #6 above from the supporting ideas, e.g. examples, chronology, statistics, transitions, & conclusions.
Sources are not equally distributed across the earth or over the geographic area, affecting the geographic quality of life.

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Language Arts</th>
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</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Composition</td>
</tr>
<tr>
<td>Problem Orientation</td>
<td>Natural Resources</td>
</tr>
<tr>
<td>Grade</td>
<td>9</td>
</tr>
</tbody>
</table>

OBJECTIVES

Student demonstrates ability to demonstrate different points of view only in proper order of sentences dealing with #6.

1. Give students a jumbled paragraph of about 7-8 sentences dealing with #6.

   a. Discuss how the paragraph should be by numbering sentences in proper order.

   b. Show how the topic sentence is supported by the other sentences & the function they serve.

   c. Discuss the meaning of the paragraph.

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

   1. Look up information on #6 from biology, social studies & geography books. Take one of the topics & write a good, solid paragraph.

   2. Have a group of the students interview the mayor and/or the city planner to discover why the population is moving in the direction it is moving regarding housing, business, and recreation areas. Prepare a display for the PTA meeting showing projected distribution of population because of natural resources & quality of life. Have students available for the parents to discuss with them this vital issue.
### Resource and Reference Materials

**Publications:**
- *Handbook for Environmental Action*, Environmental Science Center, 5400 Glenwood Avenue, Minneapolis, Minn. 55422.
- *Ten Years to Save Mankind*, Department of Natural Resources, State of Michigan, Lansing, Mich.
- *Elements of Style* by William Strunk.

### Audio-Visual:

### Community:
<table>
<thead>
<tr>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
</table>

The table above contains information on continued and additional suggested learning experiences. The specific details are not legible in the image provided.
Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

### Behavioral Objectives

#### Cognitive
Given excerpts from The Hidden Persuaders & discussion of various product demands, the student will be able to show how people's demands affect the environment as demonstrated by the study & oral presentation of commercials.

#### Affective
Using commercials as examples, students will be able to explain to the class what happens to the environment when people's demands increase.

#### Skills to Be Learned
- Speaking
- Cause & effect
- Use of tape recorder

### Suggested Learning Experiences

1. **Student-Centered in class activity**
   - **A. Classroom**
     1. Read & discuss excerpts from The Hidden Persuaders.
     2. Students and/or teacher can tape a variety of commercials, class discussion of content appeal, & persuasive tactics.
     3. Discuss what would result if everyone did buy one certain product. How would this affect the economy? the population? land use? transportation facilities of that area?
as facilitating transportation, 

1. Read & discuss excerpts from The Hidden Persuaders.
2. Students and/or teacher can tape a variety of commercials, class discussion of content appeal, & persuasive tactics.
3. Discuss what would result if everyone did buy one certain product. How would this affect the economy? the population? land use? transportation facilities of that area?

I. Student-Centered in class activity

A. Classroom

II. Outside Resource and Community Activities

A. Outside classroom

1. Have students bring in past & present pictures of their community to show how it has changed because of certain products & industry.
2. Students bring in real or fictitious products with which to present commercials centered around a product that could be produced in their own area.
3. Discuss the effects that these products would have on the community.
Resource and Reference Materials

Publications:
The Hidden Persuaders, Vance Packard
Magazine, Advertising Age

Audio-Visual:
Ads from magazines for discussion
Tape recordings of commercials
Picture & art drawings of products

Community:
Courthouse or newspaper publisher for pictures of community
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
</table>

...
8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The student will be able to write a dialogue showing how man feels toward his environment.

**Affective:** Using interviewing and dialogue-writing techniques, the student will display awareness that man's culture and financial resources determine his attitude toward his environment.

**Skills to be Learned**
- Discussion
- Interviewing
- Carry on a dialogue concerning a community problem resulting from man's value.

**SUGGESTED LEARNING EXPERIENCE**

I. Student-Centered in class activity

1. Read a novel or short story dealing with ethnic customs or money. Discuss how ethnic customs & money influence the value of the characters.

2. Students collect & bring in pictures of various economic areas. Discuss what values brought about this particular condition. To change that condition, decide what attitudes must be changed. Also discuss if this new condition is good or bad and why.

3. Students bring to class examples of dialogue - discuss the type of person and type of values contained in these examples.

4. Choose a common ecological problem. Each student has an occupation & the class discusses how each can help to solve the problem & what values each have.

5. Some dialogue could be acted out and tape recorded.
Economic, social, and 

Economics determine status 

Problems and attitudes 

Discipline Area Language Arts 

Subject English 

Problem Orientation Attitudes Grade 9 

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
</table>
| 1. Student write 
2. Student interview 
3. Student bring in examples | I. Student-Centered in class activity 
1. Read a novel or short story dealing with ethnic customs or money. Discuss how ethnic customs & money influence the value of the characters. 
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4. Choose a common ecological problem. Each student has an occupation & the class discusses how each can help to solve the problem & what values each have. 
5. Some dialogue could be acted out and tape recorded. |
| Outside Resource and Community Activities | II. Outside Resource and Community Activities 
1. Each student will interview some adult in the community concerning the ecological problem. Each student will write up the interview, using dialects, slang, idioms, as a dialogue. |
Resource and Reference Materials

Publications:
One Hundred Dollar Misunderstanding by Robert Gover.
Writing Fiction by R.V. Cassil.
Diction and Style in Writing by Richard Altuk.
The Effective Theme by Waldow Stegner.
Elements of Style by Wm. Strent.

Audio-Visual:
Magazine & newspaper pictures
Tape recorder

Community:
member of community
different ethnic groups
people of different financial status
leader in industry
G-9. Man has the ability to manage, manipulate, and change his environment.

**Behavioral Objectives**

**Cognitive:** The student will be able to identify 5 propaganda devices in ads of products which harm his environment.

**Affective:** Through writing, an ad to influence the public not to buy certain products, the student will show that man, at times, changes his environment at the expense of future generations.

**Skills to be Learned**
- Identify propaganda devices
- Understand words & images of ad writing

**Suggested Learning Experience**

1. **Student-Centered in class activity**
   - **A. Classroom**
     1. Students bring in newspapers to discuss the content & make-up. Discuss why ads are important to the economy of the paper & to the needs of the people.
     2. Read excerpts from *The Hidden Persuaders* & discuss the psychology & techniques of ad writing. Choose a few well-prepared ads. Discuss how the product is made or where it comes from; what good comes from the product & what bad results from it. Discuss the effect of words on the person reading the ad & the various propaganda devices.
     3. Have each student pretend he has a certain amount of money ($5000) Given a list of priorities or variable items, he has to spend it all. Discuss how the wants of the class will change the environment.
     4. A student has a year to do anything he wishes. What **(cont.)**
Discipline Area: Language Arts
Subject: English
Problem Orientation: Attitudes
Grade: 9

OBJECTIVES

Student will identify 5 propaganda devices in form his
writing. 

I. Student-Centered in class activity

A. Classroom

1. Students bring in newspapers to discuss the content & make-up. Discuss why ads are important to the economy of the paper & to the needs of the people.

2. Read excerpts from The Hidden Persuaders & discuss the psychology & techniques of ad writing. Choose a few well-prepared ads. Discuss how the product is made or where it comes from; what good comes from the product & what bad results from it. Discuss the effect of words on the person reading the ad & the various propaganda devices.

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4. A student has a year to do anything he wishes. What (cont.)
### Resource and Reference Materials

**Publications:**
- The Hidden Persuaders, Vance Packard
- Newspapers
- Magazines

**Audio-Visual:**
- Pictures
- TV commercials
- Using Community Resources, film from CESA 9

---

### Continued and Additional Suggested Learning

I. (cont.)

5. Through looking at various ads, the students will become aware of what visual appeal does for a product. Have each student pick a product that is harming the public's health and write an ad with proper pictures to make the public not to buy the product.

---

Community:
- Local TV editor
Continued and Additional Suggested Learning Experiences

I. (cont.)

will he do? How will it affect his future life?

5. Through looking at various ads, the students become aware of what visual appeal does for the product. Have each student pick a product which, through its manufacturing, is harming the environment. He then writes an ad with proper pictures that might cause the public not to buy the product.
C 10. Short-term economic gains may NOT produce long-term environmental C E losses.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Using an ecological topic, student will organize, present & criticize a debate showing how short-term gains could produce long-term losses.

**Affective:** Students demonstrate an understanding of the complexities of the economic system by identifying short-term gains resulting in long-term losses in the oral discussion of the debates.

**Skills to be Learned**
- Research
- Interview
- Organize
- Logically present & criticize a debate concerning an ecological issue

**SUGGESTED LEARNING ACTIVITY**

I. Student-Centered in class activity
   
A. Classroom
   1. The teacher will explain the proper way to research. Use note cards, organize an argument and the proper way of conducting a debate.
   2. Watch for debates on the Inquiry or something similar.
   3. Have students select themes:
      a. Individual rights vs. community rights
      b. Mass transportation vs. individual cars
      c. Population limitation vs. population explosion
      d. Forests for industry vs. forests for recreation
   4. Students research topic
   5. Students will get together in groups according to topics & discuss the materials discovered through research. Each group, through pool of resources, will try to improve each member's presentation. (cont.)
Economic gains may result from environmental strategies.

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Language Arts</th>
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<tbody>
<tr>
<td>Subject</td>
<td>Speech - Debates</td>
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</tbody>
</table>

Problem Orientation: Resources
Grade: 9

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Classroom
      1. The teacher will explain the proper way to research, use note cards, organize an argument and the proper way of conducting a debate.
      2. Watch for debates on TV - Inquiry or something similar.
      3. Have students select topic:
         a. Individual rights vs. community rights
         b. Mass transportation vs. individual cars
         c. Population limitation vs. population explosion
         d. Forests for industry vs. forests for recreation
      4. Students research topic for 4 minute presentation - cases pro and con.
      5. Students will get together in groups according to topic & discuss the materials they discovered through research. Each group, through pooling of resources, will try to improve each member's presentation. (cont.)
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested</th>
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</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td>I. (cont.)</td>
</tr>
<tr>
<td>National Forensic League,</td>
<td>6. Debate groups will present</td>
</tr>
<tr>
<td>Ripon College, Ripon, Wis.</td>
<td>asides, &amp; rebuttals. Optional</td>
</tr>
<tr>
<td>Speaking by Doing, National</td>
<td>7. Tape debate. Have group eval</td>
</tr>
<tr>
<td>Textbook Co., Skokie, Ill.</td>
<td>uates the teacher evaluates them</td>
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<tr>
<td>Population Bomb, Paul Ehrlich</td>
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<td>State Historical Society</td>
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<tr>
<td>Madison, Wisconsin</td>
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<tr>
<td>Discussion &amp; Debate, National</td>
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<tr>
<td>Textbook Co., Skokie, Ill.</td>
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</tbody>
</table>

**Audio-Visual:**

**Community:**

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I. (cont.)

6. Debate groups will present affirmative and negative sides. Rebuttals. Optional - questions from floor.

7. Tape debate. Have group evaluate them, the teacher evaluates them.
II. Individual acts, duplicated

or compounded, produce significant environmental alterations over time.

**BEHAVIORAL OBJECTIVES**

| Cognitive: The student will be able to identify environmental alterations and to discover solutions as seen in descriptive and critical writing. | I. Student-Centered in class activity  
A. Read a short story or novel and discuss how repeated acts altered the surroundings.  
B. Present slides or pictures of community rundown vs. prosperous sections. Discuss what people live in each section and why. Account for the vast difference in the surroundings. Discuss the acts that caused both environmental situations. Which is better? How can change be instituted to better the poor situation?  
C. Make up a slide show, *This Land is Your Land*, showing how man has, through his acts, altered his environment. |
| Skills to be Learned  
Interpretation of prose writing  
Logical problem solving  
Writing descriptively | II. Outside Community  
A. Visit or interview local students in several towns. If necessary, change the setting.  
B. Visit the town described about the man that altered the surroundings.  
C. Make a slide show, "This Land is Your Land," showing how man has, through his acts, altered his environment. |

**SUGGESTED LEARNING EXPERIENCES**

**Discipline Area**  
Environmental Alterations

**Language Area**  
Descriptive and Critical Writing

**Subject**  
English

**Problem Orientation**  
E. Alter
SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Read a short story or novel and discuss how repeated acts altered the surroundings.
   B. Present slides or pictures of community rundown vs. prosperous sections. Discuss what people live in each section and why. Account for the vast difference in the surroundings. Discuss the acts that caused both environmental situations. Which is better? How can change be instituted to better the poor situation?
   C. Make up a slide show, This Land is Your Land, showing how man has, through his acts, altered his environment.

II. Outside Resource and Community Activities
   A. Visit a nearby river or lake. Question students whether this is in its original state? If not, what caused the change—one act or several acts? Why did man allow this change?
   B. Visit a poor section in town. Then compose a descriptive paragraph about it. Describe how the place should ideally look. Come up with repeated individual acts that might remedy the situation.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
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<tbody>
<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>A Tree Grows in Brooklyn</td>
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<tr>
<td>Betty Smith</td>
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<td>The Outsiders</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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<tr>
<td>Slides (teacher prepared)</td>
<td></td>
</tr>
<tr>
<td>Magazine pictures</td>
<td></td>
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<tr>
<td>Student prepared slide show</td>
<td></td>
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<tr>
<td><strong>Community:</strong></td>
<td></td>
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<tr>
<td>Field trip to local residential section</td>
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<tr>
<td>Reference Materials</td>
<td>Continued and Additional Suggested Learning Experiences</td>
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<td>Outside show</td>
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</tbody>
</table>
C 12. Private ownership must be considered as a stewardship and should not encroach upon or violate the individual right of others.

BEHAVIORAL OBJECTIVES

Cognitive: The student will be able to describe how man's manipulation of environment might violate the rights of another as demonstrated by the writing of a short story.

Affective: Given a short story, the student will pick out two examples of how man's use of the environment eventually infringes on the rights of others.

Skills to be Learned:
- Be able to evaluate a short story
- Be able to write effectively showing man's manipulation of his environment

SUGGESTED LEARNING ACTIVITIES

1. Student-Centered in class activity
   Discuss:
   - Why certain factories are located along rivers, what good is accomplished, what problems they create for future generations.
   - Why certain wilderness areas are being preserved
   - How man's greediness for natural resources has contributed to erosion, pollution, and extinction of wild life.

Read a good short story,
Discuss the structure, elements and language.
Sketch characters and plot (violation of rights).
Write story using given plot and characters, putting own interpretation to it.
Ownership must be

stewardship and

through upon or violate

right of others.

Discipline Area Language Arts

Subject Creative Writing—Short Stories

Problem Orientation Violation of Rights

Grade 9

Objectives

1. Student-Centered in class activity
   Discuss:
   - Why certain factories are located along rivers, what good is accomplished, what problems they create for future generations.
   - Why certain wilderness areas are being preserved.
   - How man's greediness for natural resources has contributed to erosion, pollution, and extinction of wild life.
   - Read a good short story, discuss the structure, elements and language.
   - Sketch characters and plot (violation of rights).
   - Write story using given plot and characters, putting own interpretation to it.

Suggested Learning Experiences

I. Outside Resource and Community Activities
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggestion</th>
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<tbody>
<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>Professionally written stories</td>
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<tr>
<td>based on this theme of violation</td>
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<tr>
<td>Readings, both informative and</td>
<td></td>
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<tr>
<td>poetic, illustrating this theme</td>
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<tr>
<td>all as stimuli for ideas and</td>
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<td>the writing process</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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<tr>
<td><strong>Film</strong></td>
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<tr>
<td><em>A Thousand Clowns</em></td>
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<tr>
<td><strong>Community:</strong></td>
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<tr>
<td>Local speakers, lawyers,</td>
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<tr>
<td>farmers, judges who can</td>
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<tr>
<td>talk anonymously of</td>
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<tr>
<td>&quot;violation&quot; cases and stories</td>
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</table>
Continued and Additional Suggested Learning Experiences
In commenting on each episode used in your class, you may wish to use the format. Please feel free to adapt it and add more pages. Let us use comments - negative and positive.

I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In-Class:

   B. Outside & Community Activities

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

Each episode used in your class, you may wish to duplicate this suggested free to adapt it and add more pages. Let us know all your critiques and positive.

Objectives

Learning Experiences

Community Activities

Source & Reference Materials
(questions & comments)

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A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA Language Arts GRADE 10

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin 54301
(414) 432-4338
PROGRAM FOR ENVIRONMENTAL EDUCATION

Language Arts GRADE 10

Robert Warpinski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist
PREFACE

If you wish to excite students about their environment, help is available through over a hundred teachers, year long meetings, a summer workshop, and the insights of ecologists. This guide means realistic, developed aid for you. First of all, one hundred teachers have directed the writing and editing of this guide.

1. This guide is supplementary in nature and the episodes are designed to plug into existing, logical course content.

2. Each page or episode offers suggestions. Since you know your students best, you can adapt, adopt, or use. By design, the range of suggestions will be wide. The range of suggestions and usage are even wider. Many episodes are self-contained, but others can be changed in part or developed more keenly over a longer period of time. Possibilities allow you to explore.

3. Now we urge that you try the episodes and suggested learning experiences. The reasons are simple. No guide has all the answers and will work unless viewed in the context of your classroom situation. Thus, give it a triple reading, check over the resources listed, make prime your students, and seek help. The Project personnel and acknowledgement page stand ready to aid your efforts. Feel free.

4. The Project Resource Materials Center serves all CESA 3, 8, and private. We will send available materials pre-paid. Call for visit. Phone 432-4338.

5. Check often the Project ICE Bibliography in your school library or Center materials. Please offer suggestions, comments, or advice as service may grow. Let's help each other.

6. Involve yourself with the guide by reacting to it with scratch suggestions on the episode pages or use the attached evaluation collected in late May next year and will be used in our revisions. Reactions and suggestions--negative and positive. Please note that cases, individual school districts and teachers will have to adapt.

7. Ecologists and other experts have simplified the issue--survival. Creation's beauty and complexity--often noted as the work of a selfless human energy to save. A year's work by a hundred of your gesture. Without you, their work will crumble, and so might we as a people. Let us live to think, feel, and act in harmony with our world.

1. Cognitive means a measurable mental skill, ability, or process.
2. Affective refers to student attitudes, values, and feelings.
3. APWI means Acceptable Performance Will Include (labels a cog)
4. EPA - Environmental Problem Area
PREFACE

Let students about their environment, help is ready. Thanks to the efforts of teachers, year long meetings, a summer workshop, university consultants and we means realistic, developed aid for you. Please note the following ideas teachers in writing and editing this guide.

Elementary in nature and the episodes are designed—at appropriate instan-
existing, logical course content.

Prove offers suggestions. Since you know your students best, you decide what or use. By design, the range of suggestions is wide; your chances for exper-
egge are even wider. Many episodes are self-contained, others open-ended, still aged in part or developed more keenly over a few weeks. These built-in low you to explore.

You try the episodes and suggested learning experiences but please pre-
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stand ready to aid your efforts. Feel free to ask their help in pre-planning.

Source Materials Center serves all CESA 3, 8, and 9 area schools—public and send available materials pre-paid. Call for any help, materials, or to 4338.

Project ICE Bibliography in your school library for available Resource

Please offer suggestions, comments, or advice—at any time—so that this Let’s help each other.

With the guide by reacting to it with scratch ideas, notes, and extended episode pages or use the attached evaluation format, which will be col-
next year and will be used in our revisions. We sincerely want your estions—negative and positive. Please note that some resources listed refer to specific, local community resources or conditions. In such school districts and teachers will have to adopt local or available sub-
of terms pertinent to the episodes is below.

Our experts have simplified the issue—survival—yours, mine, our students, and complexity—often noted as the work of a genius—will take our genius to save. A year’s work by a hundred of your fellow teachers is a saving you, their work will crumble, and so might we all—literally. Instead, think, feel, and act in harmony with our world.

Editorial Board

A measurable mental skill, ability, or process based on factual data.

Problem Area
ACKNOWLEDGEMENTS: The following teachers and consultants participated in the Supplementary Environmental Education Guide:

CESA #3
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Ronald Hammond, Hortonville
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Clarence Trentlage, Freedom
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Joan Charnetski, Sevastopol
Billie Feichtinger, Green Bay
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Paul Kane, Ashwaubenon
Roy Lukes, Gibraltar
Sister Anna, St. Philips
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Doris Malcheski, Howard-Suamico
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Gloria Morgan, Linsmeier Private
George Pederson, Southern Door
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Ruth Windmuller, Green Bay
James Wiza, De Pere
John Torgerson, Kewaunee
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Greg Schmitt, Cathedral
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John Hussey, Green Bay
Sister Barbara, St. Bernard

CESA #10

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Robert Cook, UWGB
Dennis Bryan, UWGB
1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

Cognitive: Using narrative writing as the media, the student will not only be able to write a well-constructed and effective story, but also be able to convincingly present it orally to the class.

Affective: Upon finishing this unit, the student should have a better understanding of part of the world around him; a world that is often taken for granted. He should be reminded of and understand the importance of the sun in his life.

Skills to be Learned
- Narrative writing
- Oral Reading skills
- Production skills using the tape recorder
- Interpretation skills based on dramatizations

Discipline Area: 
Subject: 
Problem Orientation: 

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING ACTIVITY</th>
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</thead>
<tbody>
<tr>
<td>Cognitive: Using narrative writing as the media, the student will not only be able to write a well-constructed and effective story, but also be able to convincingly present it orally to the class.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>Affective: Upon finishing this unit, the student should have a better understanding of part of the world around him; a world that is often taken for granted. He should be reminded of and understand the importance of the sun in his life.</td>
<td>1. Individual work: assign a narrative paper dealing with the theme &quot;The Week The Sun Didn't Shine,&quot; stipulating that it can be fiction or non-fiction.</td>
</tr>
<tr>
<td>Skills to be Learned</td>
<td>2. Have the student read his paper to the class using any sound effects or props that would make his presentation more realistic.</td>
</tr>
<tr>
<td>- Narrative writing</td>
<td>3. Inform the students that they may enlist the help of other students to dramatize his story if he wishes.</td>
</tr>
<tr>
<td>- Oral Reading skills</td>
<td>4. Recording narratives to resemble a radio program</td>
</tr>
</tbody>
</table>
From the sun, the basic source,

energy is converted through discipline area synthesis into a form all languages can use for life processes.

**OBJECTIVES**

- Student-Centered in class activity
  1. Individual work: assign a narrative paper dealing with the theme "The Week The Sun Didn't Shine," stipulating that it can be fiction or non-fiction.
  2. Have the student read his paper to the class using any sound effects or props that would make his presentation more realistic.
  3. Inform the students that they may enlist the help of other students to dramatize his story if he wishes.
  4. Recording narratives to resemble a radio program

**SUGGESTED LEARNING EXPERIENCES**

- Outside Resource and Community Activities
  1. Field trip as an entire group or in small groups to observe city and country life and the effect the sun has on it.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested Lessons</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
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<tr>
<td>Basic grammar &amp; composition text</td>
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<tr>
<td>section on narrative writing.</td>
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<tr>
<td>Newspaper &amp; magazine articles</td>
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<tr>
<td>Books dealing with darkness and</td>
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<tr>
<td>the sun - Fact or fiction.</td>
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<td>To Build a Fire - Rondon.</td>
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<td>The Grapes of Wrath - Steinbeck.</td>
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<td>The Sea Around Us - Carson</td>
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<td>Three Days to See - Keller</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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<td>Tape recorder</td>
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<td>Sound effects &amp; props to</td>
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<td>coincide with story.</td>
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<td><strong>Community:</strong></td>
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<tr>
<td>Evaluation of the farm community</td>
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<td>and how the sun affects it.</td>
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<tr>
<td>The urban area and how the sun</td>
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<tr>
<td>affects it.</td>
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</tbody>
</table>
Continued and Additional Suggested Learning Experiences
All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

**Behavioral Objectives**

**Cognitive:** After reading, "Thinking Like a Mountain," the student will be able to demonstrate in writing the cause and effect relationship which occurs as a result of man's attempting to exterminate predators.

**Affective:** The student will come to realize that man's manipulation of one element in the ecosystem will result in various effects among other elements of the system as shown through the active part the student plays in a panel discussion.

**Skills to be Learned**
- Reading for meaning
- Identifying cause and effect relationships
- Expository writing
- Relevant analysis

**Suggested Learning Experiences**

**I. Student-Centered in class activity**

1. Discuss Aldo Leopold's "Thinking Like a Mountain" from Land Country Almanac.
   a. What was the author's attitude toward the wolf in his youth?
   b. Why did he change this initial attitude?
   c. What effect does the extermination of the wolf have?
   d. What is the predator's purpose?
      1. To insure survival of the fittest
      2. To keep populations in check.

2. Write a paragraph on one of the following:
   a. Killing the fox will insure the pheasant.
   b. Hawks & eagles are a nuisance to the chicken farmer, therefore, their destruction can be condoned.

**II. Outside Community**

1. In your magazine, relate such as:
   - Foxes in the park
   - Hawks and eagles in your area

2. Conduct an experiment on the possibility that wolves are beneficial.
Interact among environment, Discipline Area Language Arts
It called Subject English
Problem Orientation Predators Grade 10

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   1. Discuss Aldo Leopold's "Thinking Like a Mountain" from Land Country Almanac.
      a. What was the author's attitude toward the wolf in his youth?
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         2. To keep populations in check.
      2. Write a paragraph on one of the following:
         a. Killing the fox will insure the pheasant.
         b. Hawks & eagles are a nuisance to the chicken farmer, therefore, their destruction can be condoned.

II. Outside Resource and Community Activities
   1. In library, locate books & magazines concerned with related problems.
   2. Identify similar negative attitudes that exist within your community.
   3. Conduct a survey on ideas such as 2a & b, and others, in the community. Record the responses and reasons for such feelings. Use this information and any written material to conduct a panel discussion on the topic, airing all responses possible problems or solutions that would be affective in your community.
### Resource and Reference Materials

<table>
<thead>
<tr>
<th>Publications:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand County Almanac and Sketches</td>
</tr>
<tr>
<td>Here and There by Aldo Leopold, Oxford University Press paperback</td>
</tr>
<tr>
<td>1969 reprint, &quot;Thinking Like a Mountain&quot; p. 129.</td>
</tr>
<tr>
<td>Never Cry Wolf by Mowatt.</td>
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<tr>
<td>Born Free</td>
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<tr>
<td>Excerpts from stories dealing with man, nature, and animals.</td>
</tr>
</tbody>
</table>

### Audio-Visual: 

### Community:
<table>
<thead>
<tr>
<th>Sketches</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Klopold, paperback</td>
<td>Like a</td>
</tr>
</tbody>
</table>
3. Environmental factors are limiting on the number of organisms living within their influence, thus, each environment has a carrying capacity.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The student will use their artistic & imaginative skills to organize & produce a program made of projects which require the research, writing & speaking skills of the student.

**Affective:** Through the assignment, the student will evaluate his own feelings towards mankind & his environment, & interpret it for the audience by using one of the mentioned projects.

**Skills to be Learned**
- Artistic
- Speaking
- Reasoning
- Organizational
- Technical
- Library & research

**Suggested Learning Experiences**

1. Student-Centered in class activity
   - A. Class
     1. Organize a thematic presentation to be presented to the class, demonstrating the concept, "How mankind is overloading or exceeding the land's carrying capacity".

2. The class will conduct a program to be put on to another English class with each student or group of students working on a project. Example of projects:
   - a. A collage representative of the concept
   - b. Find a contemporary song or songs to illustrate the problem, use the record with the presentation
   - c. Choose prose or poetry to read or memorize
   - d. Create your own song or poem to present
   - e. Find illustrative slides & correlate with appropriate music
   - f. Present a satirical skit
SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Class

1. Organize a thematic presentation to be presented to the class, demonstrating the concept, "How mankind is overloading or exceeding the land's carrying capacity".

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Example of projects:

a. A collage representative of the concept
b. Find a contemporary song or songs to illustrate the problem, use the record with the presentation
c. Choose prose or poetry to read or memorize
d. Create your own song or poem to present
e. Find illustrative slides & correlate with appropriate music
f. Present a satirical skit

II. Outside Resources and Community Activities

A. Outside work

1. Invite the community to view the program or present it to some local organization.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td>I. (cont.)</td>
</tr>
<tr>
<td><strong>Magazines:</strong></td>
<td>Examples of how man's misusing:</td>
</tr>
<tr>
<td>Life</td>
<td>a. Pollution of any type</td>
</tr>
<tr>
<td>Look</td>
<td>b. Population problem</td>
</tr>
<tr>
<td>National Geographic</td>
<td>c. Overcrowding streets &amp; highways</td>
</tr>
<tr>
<td>National Wildlife</td>
<td>1. Construction of buildings</td>
</tr>
<tr>
<td>Art</td>
<td>2. Crowded residential areas</td>
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<td></td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
<td></td>
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<tr>
<td>Record player</td>
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<tr>
<td>Tape recorder</td>
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<td></td>
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<tr>
<td><strong>Community:</strong></td>
<td></td>
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<tr>
<td>Props for skit</td>
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</tbody>
</table>
I. (cont.)

Examples of how man's misusing the land:

a. Pollution of any type
b. Population problem

c. Overcrowding streets & highways
   1. Construction of buildings (business)
   2. Crowded residential areas
Cognitive: After observation of wildlife in & about a fresh water source, the student will demonstrate by writing a creative poem, his understanding of the dependence of life upon an adequate supply of pure water.

Affective: Student will become aware of poetry as a literary art form by actually writing it themselves, developing an attitude or feelings relative to an observed situation.

Skills to be Learned
- Creative writing
- Imagery
- Research skills

Discipline Area: Language
Subject: English
Problem Orientation: Personal

SUGGESTED LEARNING

I. Student-Centered in class activity
   A. Class activity
      1. The class will read poetry selections dealing with nature & the importance of water plays.
      2. Each student will compose a poem about some animal or bird that was seen utilizing the water source. The poem should incorporate the "concept" while recording in an interesting manner the actions of the bird or animal in & around the water source.
Objective

I. Student-Centered in class activity
   A. Class activity
      1. The class will read poetry selections dealing with nature & the importance of water plays.
      2. Each student will compose a poem about some animal or bird that was seen utilizing the water source. The poem should incorporate the "concept". While recording in an interesting manner the actions of the bird or animal in & around the water source.

II. Outside Resource and Community Activities
   A. Community & surrounding area
      1. In small groups visit a fresh water source (relatively polluted) & observe the wildlife that comes to the water source for sustenance.
      2. Compile a list of those species that are observed around the water source.
   B. Library
      1. Research the growth of cities around the Great Lakes or other fresh water sources.
### Resource and Reference Materials

**Publications:**
- *The Sun Around Us*, R. Coran
- *Six Centuries of Great Poetry*, Dell paperbacks
- Any literary anthology

**Audio-Visual:**
- Library resource material
- Related poems, etc.
- Stuffed models of wildlife in class or in museum

**Community:**
- Wildlife Sanctuary
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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<tbody>
<tr>
<td>Coran</td>
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<tr>
<td>Poetry,</td>
<td></td>
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<tr>
<td>Life in</td>
<td></td>
</tr>
</tbody>
</table>
5. An adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food.

BEHAVIORAL OBJECTIVES

Cognitive: The student will be able to write a descriptive essay about air pollution based on what he has seen, as well as be able to discuss the problem as found in his own community.

Affective: Through observing the air pollution problem in his own town and writing about it, the student will show an awareness of the problem of air pollution.

Skills to be Learned
Descriptive writing skills
Discussion skills
Critical thinking

SUGGESTED LEARNING ACTIVITIES

I. Student-Centered in class activity
A. To begin class, rap flip through 10-12 slides from a film strip, giving the student just enough time to jot down one word or two, his first impressions of each.
B. Have the student, using these impressions, write a descriptive essay about what he has just seen the importance it plays in his life.
I. Student-Centered Activity

A. To begin class, rapidly flip through 10-12 slides from a film strip, giving the student just enough time to jot down, in a word or two, his first impressions of each. Have the student, using these impressions, write a descriptive essay on what he has just seen and the importance it plays in his life.

B. Then go out into the community looking for examples of air pollution. The teacher will then return the film strip and the class will discuss it and the ideas the student has found. Stressing the idea of what can be done to overcome the problem.

II. Outside Resource and Community Activities

A. The students will then go out into the community looking for examples of air pollution. The teacher will then return the film strip and the class will discuss it and the ideas the student has found. Stressing the idea of what can be done to overcome the problem.

B. Have the students, using their impressions from the film, write a descriptive essay on what they have just seen and the importance it plays in their life.

Grade 10
Audio-Visual:
Environmental Pollution - Our World in Crisis, Ward's Natural Science Establishment; filmstrip on air pollution.

Community:
city engineer, city clerk
township office
Dept. of Natural Resources, Green Bay
observe examples of air pollution in community
talk to qualified people about what can be done to eliminate air pollution.
C 6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

### BEHAVIORAL OBJECTIVES

#### Cognitive:
- The student will be able to compare and contrast the life styles of actual and fictional characters illustrating the importance of natural resources by writing a paper, "How the main character's life style has been molded by the area in which he lives."

#### Affective:
- Through observing and discussing the natural resources in the student's immediate area, they will become aware of how their lives are affected by this factor.

#### Skills to be Learned
- Reading skills
- Comprehensive writing skills
- Discussion & debating skills
- Research & Interviewing skills

### SUGGESTED LEARNING ACTIVITIES

1. Student-Centered in class activity
   - Have the class break up into groups and read the novel The Old Man and The Sea or The Pearl. Show a movie, if available, of the novel.

2. Have each individual or group prepare a written paper dealing with the question, "How the main character's life style has been molded by the area (natural resources) in which he lives."
   - a. his life style
   - b. mental attitude toward life & duty to one's society

3. Divide class into groups and carry on discussion about student's life style and how the geographical location has influenced his life style.

4. A debate may be organized around the life style of a rural family vs. the life style of an urban family.
   - a. Some should be areas

5. Show slides or pictures dealing with the natural resources in your area.

6. Show slides or pictures dealing with the natural resources in your area.
resources are not equally distributed over the earth or over disciplines greatly affect the geographic differences and quality of life.

<table>
<thead>
<tr>
<th>ORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>The student is to compare the life of actual and fictional characters illustrating the importance of resources by writing about the main life style that is molded by the area in which the individual lives.</td>
<td></td>
</tr>
<tr>
<td>Through observing and discussing the resources in the immediate area, the student will become aware of how the geographical location has influenced their lives.</td>
<td></td>
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</tbody>
</table>

**I. Student-Centered in class activity**

1. Have the class break up into groups and read the novel *The Old Man and The Sea* or *The Pearl*. Show the movie, if available, of the novel.
2. Have each individual or group prepare a written paper dealing with the idea, "How the main character's life style has been molded by the area (natural resources) in which he lives."
   a. his life style
   b. mental attitude towards life & duty to one's self
3. Divide class into groups and carry on discussion about student's life style and how the geographical location has influenced it.
   a. his life style
   b. mental attitude towards life & duty to one's self

**II. Outside Resource and Community Activities**

1. For discussion purposes, have the class research their surrounding area to find out how the natural resources from this region have influenced their lives.

The student will learn:

- writing skills
- debating skills
- interviewing skills
Resource and Reference Materials

**Publications:**
- Steinbeck - *Flight*
- Hemingway - *The Old Man and the Sea*
- *30 Basic Speech Experiences*, Clark Publishing.

**Audio-Visual:**
Show movie or display pictures of the novels chosen to read.
Show slides displaying what are considered natural resources.

**Community:**
Gather information from town & country residents about their life styles

Continued and Additional:

I. (Cont.)
- somewhat untouched
- somewhat what is
  a. Explain the resources & how
  b. Show slides of and discuss how different than...
Continued and Additional Suggested Learning Experiences

I. (Cont.)

somewhat untouched by man and others should show somewhat what man has done.

1. Explain the importance of changing the natural resources & how it has altered our lives.

b. Show slides of resources not found in your area and discuss how these have developed life styles different than the one you live.
Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The student will be able to formulate some ideas relative to the above concept and put these thoughts in organized well-structured compositions.

**Affective:** The student will demonstrate awareness of the factors in society that affect his values & attitudes by constructing a paper dealing with this topic.

**Skills to be Learned**

- Thought interpretation
- Topic sentence development
- Unifying sentences into a paragraph into overall theme
- Thought development
- Sentence structure
- Punctuation skills

**SUGGESTED LEAD**

I. Student-Centered in class activity

1. Have students write down separate thoughts, skipping a space between each, about the aspects of the concept that affect man's values & attitudes in either city living or country living.

2. Go back over these & place them on some order as to how you would logically want to talk about them.

3. Write first statement on sheet of paper. Have students develop.

4. After they have developed the first topic as far as they can tell them to glance at the 2nd statement on the other sheet & to think of a good statement to get them from this first paragraph into the next one to keep the idea flowing smoothly.

5. Repeat with remaining statements.

6. Use overhead projector to show papers to class, concealing names. Students will comment & make corrections.
Economic, social, and cultural factors determine status and attitudes in an environment.

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Language Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>English Composition</td>
</tr>
<tr>
<td>Problem Orientation</td>
<td>Attitudes</td>
</tr>
<tr>
<td>Grade</td>
<td>10</td>
</tr>
</tbody>
</table>

**OBJECTIVES**

- Student will formulate a topic to the concept.
- Put these ideas into well-organized sentences.
- Student will write down separate thoughts, skipping a space between each, about the aspects of the concept that affect man's values & attitudes in either city living or country living.
- Go back over these & place them on some order as to how you would logically want to talk about them.
- Write first statement on a sheet of paper. Have students develop.
- After they have developed the first topic as far as they can, tell them to glance at the 2nd statement on the other sheet & to think of a good statement to get them from this first paragraph into the next one to keep the idea flowing smoothly.
- Repeat with remaining statements.
- Use overhead projector to show papers to class, concealing names. Students will comment & make corrections.

**SUGGESTED LEARNING EXPERIENCES**

I. Student-Centered in class activity

1. Have students write down separate thoughts, skipping a space between each, about the aspects of the concept that affect man's values & attitudes in either city living or country living.

II. Outside Resource and Community Activities

2. Go back over these & place them on some order as to how you would logically want to talk about them.

3. Write first statement on a sheet of paper. Have students develop.

4. After they have developed the first topic as far as they can, tell them to glance at the 2nd statement on the other sheet & to think of a good statement to get them from this first paragraph into the next one to keep the idea flowing smoothly.

5. Repeat with remaining statements.

6. Use overhead projector to show papers to class, concealing names. Students will comment & make corrections.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additions</th>
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<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
</tr>
<tr>
<td>local news media</td>
<td></td>
</tr>
<tr>
<td>textbooks, pamphlets, magazines</td>
<td></td>
</tr>
</tbody>
</table>

**Audio-Visual:**
- overhead projector
- opaque projector

**Community:**
- interview local citizens
- Dept. of Natural Resources (for materials)
- Council of Northeast Wisc. Planning Commission
- Wisc. Ecological Commission
<table>
<thead>
<tr>
<th>Reference Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>magazines</td>
<td></td>
</tr>
</tbody>
</table>
C 8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** After researching the above problem, students will take part in a problem-solving group discussion as a means of better understanding the various influences that transportation, economic conditions, population growth, and increased leisure time have on land usage and centers of population density.

**Affective:** That through a group discussion problem-solving effort, students will become more aware of the various ways that factors such as transportation, economic conditions, population growth, and increased leisure time can have a great influence on changes in land use and population density centers.

**Skills to be Learned**
- Research skills
- Organization skills
- Extemp. speaking skills
- Group interaction skills
- Group leadership skills
- Informative speaking
- Effective notetaking

**DISCIPLINE AREA**
- Lang

**SUBJECT**
- Popu

**PROBLEM ORIENTATION**
- Dens

**SUGGESTED LEARNING EX**

I. Student-Centered in class activity
1. Divide the class into 3 or 4 groups & present each with above concept.
2. Have students meet in groups and organize themselves by selecting a chairperson and deciding how they will organize their problem-solving effort.
3. Each student then researches the problem or assigned aspects of the problem that the group has decided to break the topic into.
4. Group should meet together periodically to pool information or make progress reports on their individual research efforts.
5. Have each group present group discussion of their research in front of class. Should last about 10 min. Allow for class questions & comments.
Economic, social, and psychological factors determine status and attitudes.

**Objectives**

- Understanding influences on economic conditions and population growth, influence on student learning.

**Discipline Area**

- Language Arts

**Subject**

- Speech

**Problem Orientation**

- Population Density

**Grade**

- 10

**Suggested Learning Experiences**

1. **Student-Centered in class activity**
   - Divide the class into 3 or 4 groups & present each with above concept.
   - Have students meet in groups and organize themselves by selecting a chair and deciding how they will organize their problem-solving effort.
   - Each student then researches the problem or assigned aspects of the problem that the group has decided to break the topic into.
   - Group should meet periodically to pool information or make progress reports on their individual research efforts.
   - Have each group present group discussion of their research in front of class. Should last about 10 min. Allow for class questions & comments.

2. **Outside Resource and Community Activities**
   - Bring in outside speakers to talk about the topics each group will be discussing.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
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<tr>
<td>books, magazines, periodicals,</td>
<td></td>
</tr>
<tr>
<td>and other library references</td>
<td></td>
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</tbody>
</table>

**Audio-Visual:**

**Community:**
- local news media (TV, radio)
- Council of Gov'ts
  - Northeast Wisconsin Planning Commission
- Wisc. Ecological Commission
- DNR State Dept. of Conservation
- Dept. of the Interior

surveys of persons who have some interest in the various factors mentioned which have an influence on changes in land use and centers of population density.
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
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313
Man has the ability to manage, manipulate, and change his environment.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cognitive: After presenting a simulated public hearing, incorporating a selected research problem from the orally presented news clippings of problems by each student in class, the students will use role playing as a media to demonstrate his understanding of man's individual environmental needs &amp; wants. The students will follow-up these assignments by presenting an informative speech relating individual change or reinforcement of attitudes resulting from the study. Affective: Through role-playing &amp; preparing a speech dealing with man's conflicts with his environment, the students are made increasingly aware of conflicts of interest involving man's needs relative to land use.</td>
<td></td>
</tr>
<tr>
<td>I. Student-Centered in class activity A. Class 1. Role-playing - Simulate a public hearing using as the basis a selected common interest problem from the local news media. One involving a wide variety of land use possibilities, e.g. The damming of a local river which could have any of the following potential effects: a. Flooding of wildlife habitat b. Removal of landmark trees c. Electrical power availability d. Creation of swimming, fishing &amp; campsite areas e. Creation of watershed f. Aesthetic value of landsite g. Water rights above &amp; below dam. 2. Speech to inform reflecting personal change or reinforcement of attitudes relative to a situation regarding land use.</td>
<td></td>
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</tbody>
</table>

Skills to be Learned: Role playing, Reading aloud, Research (cont.)

Discipline Area: Language
Subject: Speech
Problem Orientation: Language
ability to manage, and change his

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Language Arts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Speech</td>
</tr>
<tr>
<td>Problem Orientation</td>
<td>Land Use</td>
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</table>

<table>
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<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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<tbody>
<tr>
<td></td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td></td>
<td>A. Class</td>
</tr>
<tr>
<td></td>
<td>1. Role-playing - Simulate a public hearing using as the basis a selected common interest problem from the local news media. One involving a wide variety of land use possibilities. e.g. The damming of a local river which could have any of the following potential effects: a. Flooding of wildlife habitat b. Removal of landmark trees c. Electrical power availability d. Creation of swimming, fishing &amp; campsite areas e. Creation of watershed f. Aesthetic value of land site g. Water rights above &amp; below dam. 2. Speech to inform reflecting personal change or reinforcement of attitudes relative to situation regarding land use.</td>
</tr>
<tr>
<td></td>
<td>II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td></td>
<td>A. Community</td>
</tr>
<tr>
<td></td>
<td>1. Have students research, select bring to class &amp; read aloud, a news description of an environmental conflict of interest. 2. Students interview members of the community to gain insight into their views relative to environmental problems being dealt with, &amp; as a means of substantiating the students role-playing experience.</td>
</tr>
<tr>
<td></td>
<td>B. Library</td>
</tr>
<tr>
<td></td>
<td>1. Research books, magazines, newspapers for related problems.</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggested Skills to be Learned (cont.)</td>
</tr>
<tr>
<td>----------------------------------</td>
<td>-------------------------------------------------------------</td>
</tr>
<tr>
<td>Books and other library reference sources</td>
<td>Informative speaking</td>
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<tr>
<td></td>
<td>Organization</td>
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<td>Outlining</td>
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<td></td>
<td>Extemp speaking</td>
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<td></td>
<td>Interpretive</td>
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<tr>
<td></td>
<td>Business letter writing</td>
</tr>
</tbody>
</table>

Community:
- Local news media
- TV
- Newspaper
- Radio
- Townspeople
- DNR State Dept of Conservation
- Dept. of the Interior
- Council of Governments Northeast
- Wis. Planning Commission
- Wisconsin Ecological Commission
<table>
<thead>
<tr>
<th>Continued and Additional Suggested Learning Experiences</th>
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</thead>
<tbody>
<tr>
<td>Skills to be Learned (cont.)</td>
</tr>
<tr>
<td>Informative speaking</td>
</tr>
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<td>Business letter writing</td>
</tr>
</tbody>
</table>

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**by reference**

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**NE Commission on Accreditation**

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315
10. Short-term economic gains may produce long-term environmental losses.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The student will be improving his ability to organize & conduct a discussion as well as express himself rationally by writing about man's attitudes towards his environment.

**Affective:** The student will show his awareness of how decisions concerning economic gains may produce lasting environmental losses by finding examples of these losses & using them to prepare an essay coming the "before and after" effects.

**Skills to be Learned**
- Discussion
- Writing
- Observation
- Analyzing

**SUGGESTED LEARNING EX**

**I. Student-Centered in class activity**

**A. Classroom**

1. Discuss in class the question, "What is it about mankind that makes him more concerned about short-term gains than long-term losses?"

2. Have each student find 3-5 examples where man's desire for wealth has produced environmental losses which will not be easily repaired. Examples - Junk yards, housing developments, factories, highways, gravel pits, etc.

3. Using these examples, have the students discuss in a formal essay the differences between their' area today & the area before all these changes were made. How did these gains result in losses?

4. Set up a discussion with half the class supporting modernization & half against.

5. Tape the discussion & replay it for the class and (cont.)
<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
</table>
| The student will express ability to act as a teacher and write an essay expressing attitudes towards the problem. | I. Student-Centered in class activity  
A. Classroom  
1. Discuss in class the question, "What is it about mankind that makes him more concerned about short-term gains than long-term losses?"  
2. Have each student find 3-5 examples where man's desire for wealth has produced environmental losses which will not be easily repaired. Examples - Junk yards, housing developments, factories, highways, gravel pits, etc.  
3. Using these examples, have the students discuss in a formal essay the differences between their area today & the area before all these changes were made. How did these gains result in losses?  
4. Set up a discussion with half the class supporting modernization & half against.  
5. Tape the discussion & replay it for the class and (cont.) |
| II. Outside Resource and Community Activities:  
A. Bring in outside speakers defending one position or the other: modernization vs. protecting conservation. |
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td>I. (cont.)</td>
</tr>
<tr>
<td>Sand County Almanac</td>
<td>ask them to look for fallacies in</td>
</tr>
<tr>
<td>Land Ethic by Leopold</td>
<td></td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
<td></td>
</tr>
<tr>
<td>Tape recorder</td>
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<tr>
<td><strong>Community:</strong></td>
<td></td>
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<tr>
<td>Interview townspeople</td>
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<tr>
<td>Observe changes in community</td>
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<tr>
<td>Local conservation organizations</td>
<td></td>
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<tr>
<td>Outside speakers</td>
<td></td>
</tr>
<tr>
<td>Materials</td>
<td></td>
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</tr>
<tr>
<td>Continued and Additional Suggested Learning Experiences</td>
<td></td>
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<tr>
<td>I. (cont.)</td>
<td></td>
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<tr>
<td>ask them to look for fallacies in reasoning.</td>
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</tbody>
</table>
11. Individual acts, duplicated or compounded, produce significant environmental alterations over time.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The student will be able to carry on a class discussion, use this information to create a well-structured short story, and deliver this to the class as an interpretive reading or production, showing how man affects his environment.

**Affective:** Evaluating man's life style and by writing his own example in the form of a short story, the student will discover that individual acts, made by either the individual or mankind as a whole, when compounded can cause important environmental changes.

**Skills to be Learned**
- Discussion skills
- Writing skills
- Creativity
- Evaluation skills
- Speaking skills

**SUGGESTED LEARNING EXPERIENCE**

I. Student-Centered in class
   - Activity
     - A. Assign any short story dealing with nature
     - B. Have the class decide in what ways nature has been, or could be altered by individual acts, duplicated by either man or elements of nature.
     - C. Using the blackboard, have the students create a list of acts which, if duplicated, would produce significant environmental alterations over time.
     - Examples:
       1. creation of luxuries
       2. use of automobiles
       3. population explosion
       4. industry
       5. killing of animal life
       6. misuse of land for farming and grazing purposes
     - D. Turn the discussion towards the students' ideas of what makes a good short story.
     - E. Discuss the important elements of a short story.

(Cont.)
<table>
<thead>
<tr>
<th>I. Student-Centered in class Activity</th>
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</tbody>
</table>

II. Outside Resource and Community Activity |
<table>
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</thead>
<tbody>
<tr>
<td>A. Observe some ideas in their own community.</td>
</tr>
</tbody>
</table>

(Discussion continues...)
## Resource and Reference Materials

### Publications:
- Anthology or book of short stories to be used in the classroom
- *How to Write Creatively*
  
  J.N. Hook  
  University of Illinois

### Audio-Visual
- Slides and projector
- Still-life pictures

### Community:
- Collect their own pictures or props for productions

---

### Continued and Additional:

- **F.** Have the students centered on one of
- **G.** Working as an individual necessary, have the
  story for the class
- **H.** Have each student on a critique form criteria dealing with
  story, and how well the
- **I.** Student-Centered in

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Continued and Additional Suggested Learning Experiences

I. Student-Centered in class activity (cont.)

F. Have the students create their own short story centered on one of the ideas from their list.
G. Working as an individual, or recruiting help if necessary, have the student read or produce his story for the class.
H. Have each student in the class evaluate one story on a critique form made up by the teacher covering criteria dealing with the elements of a short story, and how well the story is centered on the main idea the student chose from the list.
Private ownership must be regarded as a stewardship and should not encroach upon or violate the individual right of others.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The student will be viewing a movie and commercials and will objectively discuss and criticize the effect the problem has on mankind, as well as create and present to the class, a better grade of commercial that protects our natural resources.

**Affective:** The student will show an understanding of the importance of protecting our natural resources from his own misuse, or that of others, so as to guarantee its survival for future generations, by writing a commercial that advocates protecting our natural resources.

**Skills to be Learned**
- Observation Skills
- Discussion Skills
- Using Imagination
- Writing Skills
- Speaking and Role-playing

**SUGGESTED LEARNING ACTIVITY**

**I. Student-Centered in class activity**

A. Show the film "Neighbors" and discuss the effect nature has on man.

B. With the students, compile a list of things that have endured since man set foot on American soil, and that will endure beyond your own lifetime.

C. Discuss our responsibilities in maintaining these things.

1. Do future generations have a right to these?
2. Does owning land give you the right to abuse it?

D. Change the train of thought to the questions of commercialization and how natural resources are infringed upon by the individual consumer and "no-deposit, throw-away" society.

E. Have the students bring in ads and, either alone or with a partner, have (cont.)
Ownership must be restored or violate the right of others.

**Objectives**

- The student will analyze the problem and critically discuss its effect on man.
- The student will build an understanding of commercialization and how natural resources are infringed upon by the individual consumer.
- The student will write a report advocating the protection of natural resources.

**Suggested Learning Experiences**

I. Student-Centered in class activity

- A. Show the film "Neighbors" and discuss the effect nature has on man.
- B. With the students, compile a list of things that have endured since man set foot on American soil, and that will endure beyond your own lifetime.
- C. Discuss our responsibilities in maintaining these things.
  1. Do future generations have a right to these?
  2. Does owning land give you the right to abuse it?
- D. Change the train of thought to the questions of commercialization and how natural resources are infringed upon by the individual consumer and "no-deposit, throw-away" society.
- E. Have the students bring in ads and, either alone or with a partner, have (cont.)
### Resource and Reference Materials

#### Publications:
- **Magazine**
  - Advertising Age
  - Showing yearly choices of "best ads"

#### Audio-Visual:
- Short film "Neighbors" order form
  - An annotated checklist for 200 short films for writing classes.
  - IATE Treasurer,
  - 100 English Building
  - Urbana, Illinois.
- Tape recorder
- Record player and records
- Video-tape projector

#### Community:
- Collecting ads
- Using products or business in commercial for commercial

### Continued and Additional

#### Student-Centered in class

- them look for restricted commercials.
- **F. Discuss word choice,**
  - formed by commercials
- **G. Write a commercial to rights of others to ex-**
  - H. Present it orally to
- **I. Tape record or video-**
Continued and Additional Suggested Learning Experiences

Student-Centered in class activity (cont.)

them look for restrictions and composition of commercials.
F. Discuss word choice, music, and mental picture formed by commercials.
G. Write a commercial that does not infringe on the rights of others to enjoy natural resources.
H. Present it orally to the class.
I. Tape record or video-tape these.
I. Behavioral Objectives
   A. Cognitive:

   B. Affective:

II. Skills Developed

III. Suggested Learning Experiences
   A. In-Class:

   B. Outside & Community Activities:

IV. Suggested Resource & Reference Materials
   (specific suggestions & comments)
PROJECT I-C-E

Episode Evaluation Form
(Reproduce or duplicate as needed)

Each episode used in your class, you may wish to duplicate this suggested free to adapt it and add more pages. Let us know all your critiques and positive.

Objectives

Reading Experiences

Community Activities:

Source & Reference Materials (Questions & comments)
A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA  Language Arts  GRADE  11

Produced under Title III E.S.E.A.
PROJECT I-C-E
Serving Schools in CESA's 3-8-9
1927 Main Street
Green Bay, Wisconsin  54301
(414) 432-4338

Robert War
Robert Kel
George How
Language Arts GRADE 11

Title III E.S.E.A.

In CESA's 3-8-9

Robert Warynski, Director
Robert Kellner, Asst. Director
George Howlett, EE Specialist
PREFACE

If you wish to excite students about their environment, be of over a hundred teachers, year long meetings, a summer work ecologists, this guide means realistic, developed aid for you which have directed teachers in writing and editing this gui
1. This guide is supplementary in nature and the episodes ar ces--to plug into existing, logical course content.
2. Each page or episode offers suggestions. Since you know to adapt, adopt, or use. By design the range of suggesti mentation and usage are even wider. Many episodes are sel others can be changed in part or developed more keenly on possibilities allow you to explore.
3. Now we urge that you try the episodes and suggested learn plan. The reasons are simple. No guide has all the answ unless viewed in the context of your classroom situation. give it a triple reading, check over the resources listed prime your students, and seek help. The Project personnel knowledgement page stand ready to aid your efforts. Feel 4. The Project Resource Materials Center serves all CESA 3, private. We will send available materials pre-paid. Cal visit. Phone 432-4338.
5. Check often the Project ICE Bibliography in your school l Center materials. Please offer suggestions, comments, or service may grow. Let's help each other.
6. Involve yourself with the guide by reacting to it with sc suggestions on the episode pages or use the attached eval ucted in late May next year and will be used in our revi reactions and suggestions--negative and positive. Please in the episodes may refer to specific, local community re cases, individual school districts and teachers will have stitutes. A list of terms pertinent to the episodes is b 7. Ecologists and other experts have simplified the issue--s Creation's beauty and complexity--often noted as the work and human energy to save. A year's work by a hundred of gesture. Without you, their work will crumble, and so mi let us live to think, feel, and act in harmony with our wo

1. Cognitive means a measurable mental skill, ability, or 2. Affective refers to student attitudes, values, and fee 3. APWI means Acceptable Performance Will Include (labels 4. EPA - Environmental Problem Area.
PREFACE

excite students about their environment, help is ready. Thanks to the efforts of teachers, year long meetings, a summer workshop, university consultants and guide means realistic, developed aid for you. Please note the following ideas teachers in writing and editing this guide.

supplementary in nature and the episodes are designed--at appropriate instan- 
to existing, logical course content.

episode offers suggestions. Since you know your students best, you decide what, or use. By design, the range of suggestions is wide; your chances for exper-
usage are even wider. Many episodes are self-contained, others open-ended, still changed in part or developed more keenly over a few weeks. These built-in allow you to explore.

at you try the episodes and suggested learning experiences but please pre-
son are simple. No guide has all the answers and no curriculum will work in the context of your classroom situation. Thus, before trying an episode, le reading, check over the resources listed, make mental and actual notes, dents, and seek help. The Project personnel and teachers listed on the ack-
page stand ready to aid your efforts. Feel free to ask their help in pre-planning.

source Materials Center serves all CESA 3, 8, and 9 area schools--public and will send available materials pre-paid. Call for any help, materials, or to 32-4338.

Project ICE Bibliography in your school library for available Resource s. Please offer suggestions, comments, or advice--at any time--so that this w. Let's help each other.

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May next year and will be used in our revisions. We sincerely want your suggestions--negative and positive. Please note that some resources listed may refer to specific, local community resources or conditions. In such al school districts and teachers will have to adopt local or available sub-
set of terms pertinent to the episodes is below.

other experts have simplified the issue--survival--yours, mine, our students, tly and complexity--often noted as the work of a genius--will take our genius y to save. A year's work by a hundred of your fellow teachers is a saving ut you, their work will crumble, and so might we all--literally. Instead, think, feel, and act in harmony with our world.

Editorial Board

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ceptable Performance Will Include (labels a cognitive or mental performance.) mental Problem Area.
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C 1. Energy from the sun, the basic source of all energy, is converted through plant photosynthesis into a form all living things can use for life processes.

| BEHAVIORAL OBJECTIVES | SUGGESTED LEARNING I
|------------------------|-----------------------------
| Cognitive: Students will demonstrate skill in using concrete and connotative words through imaginative writing and a personal conference with the teacher about the sun and how it affects life. | 1. Student-Centered in class activity
| Affective: Through constructing of his own project, the student demonstrates his understanding of the sun and the effect it plays on man's life. | 1. Students will critically discuss writing containing passages with strong and vivid images of the sun and its effect on nature.
| Skills to be Learned | 2. Student-made art work, pictures, slides, posters, etc. of different views of the sun.
| Word choice | 3. Teacher will organize a thematic presentation of their work with musical accompaniment, with the students reacting to these through imaginative writing form of their choice: poetry, narrative, essay, single effect writing.
| Imaginative expression points of view. | 4. In second presentation, the student will alter his writing approach. |
sun, the basic source
converted through plant
a form all living
life processes.

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<tr>
<th>STUDY AREA</th>
<th>Language Arts</th>
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<tbody>
<tr>
<td>Subject</td>
<td>English</td>
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<td>Problem Orientation</td>
<td>Sun Energy</td>
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<td>Grade</td>
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<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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<td>I. Student-Centered in class activity</td>
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<td>2. Student-made art work, pictures, slides, posters, etc. of different views of the sun.</td>
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<td>4. In second presentation, the student will alter his writing approach.</td>
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<thead>
<tr>
<th>II. Outside Resource and Community Activities</th>
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<tbody>
<tr>
<td>1. Student will collect materials or slides of different aspects of the sun from the community.</td>
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<td>2. Contact Art Department for pictures.</td>
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<td>3. Contact Music Department for background music.</td>
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### Resource and Reference Materials

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<th><strong>Publications:</strong></th>
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<tbody>
<tr>
<td><em>Imaginative writing:</em></td>
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<tr>
<td>Impressionistic poetry, excerpts from prose (novels, short stories), newspaper articles as selected by teacher and students.</td>
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<th><strong>Audio-Visual:</strong></th>
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<td>Pictures, slides, posters, art productions.</td>
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<td>Slide using shadows, light, sun</td>
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<td>Tape recorder</td>
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<td>Record player</td>
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<td>Music teacher</td>
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<td>Local library</td>
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<td>Slides from community</td>
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<td>Materials continued and Additional Suggested Learning Experiences</td>
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<td>Excerpts from light, sun stories, art excerpts, selected</td>
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2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING</th>
</tr>
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</table>
| **Cognitive**: Students should be able to demonstrate the distinctions between descriptive & expository writing & be able to give an example of each as a reaction to a visual stimulus. **Affective**: Students should become more sophisticated in their reading, e.g. In their grammatical usage & its bearing on their writing. They should see writers' attitudes more clearly & thus be able to measure their own attitudes more efficiently against the writer's & against other students. **Skills to be Learned** | **I. Student-Centered in class activity**
**A. Class**
1. Have students view similar full page pictures from some commercial magazines. Suggested examples might be comparisons.
   a. Ants working in their communities as compared to men pictured in the busy city.
   b. Pictures of rural or city life showing skills that are almost non-existent, compared to pictures of animals faced with extinction or that are extinct.
2. Conceal these pictures.
3. Have the student note subtle similarities & differences in a one or two sentence form.
4. Select 10 or 12 of these sentences written to be put on the board.
5. From the selected (cont.)
**I. Student-Centered in class activity**

A. Class

1. Have students view similar full page pictures from some commercial magazines. Suggested examples might be comparisons.
   a. Ants working in their communities as compared to men pictured in the busy city.
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2. Conceal these pictures.

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4. Select 10 or 12 of these sentences written to be put on the board.

5. From the selected

**II. Outside Resource and Community Activities**

A. Library

1. Locate examples of expository & descriptive writing associated with concept.

2. Discuss which type of writing is most appropriate for what is being said.
### Resource and Reference Materials

**Publications:**
- **Texts:**
  - Warriner's Handbook
  - *The English Language II*, Harcourt Brace & World
  - Any language text can be used to acquire basic materials

**Magazines:**
- Look
- Life
- National Geographic

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**Continued and Additional**

6. Have students organize classroom demonstrations & descriptive writing depicting ecological concepts.

**Audio-Visuals:**
- Crowd pictures
- City life
- Restful rural life

**Community:**
Continued and Additional Suggested Learning Experiences

I. (cont.)

sentences, make distinctions between descriptive or expository sentences as they relate to the concept.

6. Have students organize a bulletin board in hall or classroom demonstrating effectiveness of expository & descriptive writing. Use editorials, poems, etc. depicting ecological principles.
C 3. Environmental factors are limiting on the numbers of organisms living within their influence, thus, each environment has a carrying capacity.

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<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING</th>
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<tbody>
<tr>
<td><strong>Cognitive:</strong> The student will be able to discuss, plan, explain and survey the application of concept #3 in two modern dramas as well as conducting a survey based on the ecological problem.</td>
<td><strong>I.</strong> Student-Centered in class activity</td>
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<td><strong>Affective:</strong> Through surveying and preparing an oral or written evaluation about the effects of living in an overcrowded area, the student will be able to understand the actions and attitudes of people in relationship to their surroundings.</td>
<td>1. After reading one of the following plays - &quot;The Death of a Salesman&quot; or &quot;West Side Story&quot;, the class will expound either verbally or in written form on the following idea.</td>
</tr>
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| **Skills to be Learned**
Interpretive reading skills
Speaking skills
Comparison of actions in relationship to an ecological problem
Interviewing skills | e) Death of a Salesman - Willy is the way he is because he feels "stuck" between the apartments. See stage directions before Act I and dialogue in Act I. |
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| c) Read excerpts from the plays dealing with problem (e.g. Biff talking about the colts and freedom...Willy talking about his apartments and lack of air.) |
**OBJECTIVES**

- Student will discuss, plan, survey the concept #3 dramas as fitting a surveying an oral evaluation about living in an area, the action to their learned reading skills tales of actions in an ecological skills.

<table>
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<tr>
<th>I. Student-Centered in class activity</th>
<th>II. Outside Resource and Community Activities</th>
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<tbody>
<tr>
<td>1. After reading one of the following plays—&quot;The Death of a Salesman&quot; or &quot;West Side Story&quot;, the class will expound either verbally or in written form on the following idea.</td>
<td>1. Outside Activities - to be reported on in verbal as well as written form. (To be done as an individual or in groups of two)</td>
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<tr>
<td>a) Death of a Salesman - Willy is the way he is because he feels &quot;stuck&quot; between the apartments. See stage directions before Act I and dialogue in Act I.</td>
<td>a) Record observations made in a crowded city or store, noting the reactions of people to different situations.</td>
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<td>b) West Side Story - Why the gangs? Why the hostility? Why the rooftop scenes? Overcrowded again.</td>
<td>b) Compare and contract the reactions of people in a crowded atmosphere vs. a non-crowded one. (Same setting.</td>
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<tr>
<td>c) Read excerpts from the plays dealing with problem (e.g. Biff talking about the colts and freedom...Willy talking about his apartments and lack of air.)</td>
<td>c) Observe and record the reactions of teacher and students in an overcrowded atmosphere.</td>
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<td>d) Survey people who live in apartments or tenement houses and see if they think their lives are affected by their living conditions.</td>
<td>d) Survey people who live in apartments or tenement houses and see if they think their lives are affected by their living conditions.</td>
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<td>Source and Reference Materials</td>
<td>Continued and Additional Suggested</td>
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<td>&quot;Death of a Salesman&quot;</td>
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<td><strong>Community:</strong></td>
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<td>Private business owners and</td>
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<td>Community members</td>
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An adequate supply of pure water is essential for life. (applicable to No. 5 Concept also)

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Through the research development and presentation of contemporary materials in the form of a "Today" show, the students will demonstrate their knowledge of the need for adequate supplies of pure water and clean air as related in concepts 4 and 5 respectively.

**Affective:** A student learns by actually preparing and presenting a written script for a "talk" show dealing with the need for pure water and clean air and how they are passively accepted rather than actively understood.

Skills to be Learned

- Research group interaction
- Better understanding of mass media - especially television, listening and interpretation.

**SUGGESTED LEARNING ACTIVITY**

1. Student-Centered in class activity
   - Introduce concepts 4 & 5 as theme ideas for a T.V. show.

2. Ask class what procedures would have to be followed to organize a presentation centering on these themes. Ideas could include:
   - a) use of reference materials
   - b) consulting of periodicals
   - c) division of class into groups for more direct study
   - d) preparation of scripts
   - e) use of visual aids
     1) pictures (clipped and framed)
     2) student prints and slides showing activities dependent on pure water and clean air.
     f) choosing of commentators, technicians and directors for the actual show.

(Cont.)
The supply of pure water is
for life. (applicable to No. 5

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<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
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<td>I. Outside Resource and</td>
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<td>Community Activities</td>
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<td>f) choosing of commenta-</td>
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<td><strong>Publications:</strong></td>
<td>I. (Cont.)</td>
</tr>
<tr>
<td>Life</td>
<td>3. Get class ideas as to length of time required. Time could vary depending on level and resourcefulness of class from 3rd and 4th day to a couple of weeks.</td>
</tr>
<tr>
<td>Look</td>
<td></td>
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<tr>
<td>Newsweek</td>
<td>4. Divide the class into groups, each with a definite subject responsibility.</td>
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<tr>
<td>Time</td>
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<tr>
<td>National Geographic</td>
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<tr>
<td>Newspapers</td>
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<tr>
<td>Speech Text</td>
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<tr>
<td>Media Resource Materials</td>
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<tr>
<td>&quot;The Sea Around Us&quot;</td>
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<tr>
<td>R. Carson</td>
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<tr>
<td>&quot;30 Basic Speech Experiences&quot;</td>
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<td>Clark Publishers</td>
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<td>&quot;Speaking by Doing&quot;</td>
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<tr>
<td>National Textbook Co.</td>
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<tr>
<td>Skokie, Ill.</td>
<td></td>
</tr>
<tr>
<td>(The included materials are generally presented with the understanding that the possibilities are limited and the breadth of this activity is very open-ended)</td>
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</tr>
<tr>
<td><strong>Audio-Visual:</strong></td>
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<tr>
<td>News programs -T.V. &amp; Radio</td>
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</tbody>
</table>

| Community                        |                                      |
3. Get class ideas as to length of time required. Time could vary depending on level and resourcefulness of class from 3rd and 4th day to a couple of weeks.

4. Divide the class into groups, each with a definite subject responsibility.

and parents should be included to represent different opinions. Preparation of advance questions should be required as well as proper interview techniques.

4. The show should be community oriented whenever possible, but most of what is included will probably be of state and national significance.

NOTE: The entire presentation could last from one-half to one hour as the instructor sees fit. The use of movie equipment or video-tape would enhance the experience but is not essential.
6. Natural resources are not equally distributed over the earth or over time and greatly affect the geographic conditions and quality of life.

**BEHAVIORAL OBJECTIVES**

Cognitive: The student will be able to write a creative description illustrating that natural resources greatly affect the quality of life.

Affective: Through observation and entries in journals, the student will demonstrate his awareness that the presence and absence of natural resources greatly affect the quality of life, and by describing what his community would look like with the addition of one resource.

**Skills to be Learned**

- Journal recording
- Creative descriptive writing
- Use of concrete writing

**SUGGESTED LEARNING**

I. Student-Centered in class activity

1. Students should take their journal entry & add a given natural resource to it. Then write a descriptive theme on what he thinks this area might look like in its changed state.
Resources are not equally distributed over the earth or over time, greatly affecting the geographic distribution and quality of life.

**Objectives:**
- The student will learn to write a descriptive essay illustrating how natural resources affect the environment and the absence or presence of these resources greatly affects the quality of life. Students will read in their journal entry and add a given natural resource to it, then write a descriptive theme on what he thinks this area might look like in its changed state.

**Suggested Learning Experiences:**

<table>
<thead>
<tr>
<th>I. Student-Centered in class activity</th>
</tr>
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<tbody>
<tr>
<td>1. Students should take their journal entry and add a given natural resource to it. Then write a descriptive theme on what he thinks this area might look like in its changed state.</td>
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</table>

<table>
<thead>
<tr>
<th>II. Outside Resource and Community Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Field trip to lake or river. Discuss the effect this natural resource has on animals and people. Why did this happen? What was the effect on their ecosystem? Read Thoreau's journal of writings.</td>
</tr>
<tr>
<td>2. Individuals should observe a given area in the community for a number of days, then write a journal on what they observed.</td>
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<tr>
<td>3. Bring in pictures or slides of areas rich in natural resources and discuss the effect these have on the quality of life.</td>
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<tr>
<td>4. Have a DNR representative come to speak on what their area will look like in 10 years.</td>
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<tr>
<td>5.</td>
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<tr>
<td>Resource and Reference Materials</td>
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<tr>
<td>---------------------------------</td>
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<tr>
<td><strong>Publications:</strong></td>
</tr>
<tr>
<td>Thoreau's writings</td>
</tr>
<tr>
<td>Handbook for Environmental Action</td>
</tr>
<tr>
<td><strong>Audio-Visual:</strong></td>
</tr>
<tr>
<td>Film - One Day at Teton Marsh</td>
</tr>
</tbody>
</table>

**Community:**
- Local river or lake
- Resource person on natural resources
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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</thead>
<tbody>
<tr>
<td>Action</td>
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<tr>
<td>Wash</td>
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</table>
Factors such as facilitating transportation, economic conditions, population growth, and increased leisure time have a great influence on changes in land use and centers of population density.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The student will be able to compare, through reading & discussing, the way life has changed & the reasons for this & display what he has learned through the creation of visual aids.

**Affective:** Through the collection & discussion of material dealing with changes of life in the Mississippian area, the student should have a better understanding of life's changes.

**Skills to be Learned**
- Comparative reading
- Comparative discussion
- Organization skills

**SUGGESTED LEAR**

1. **Student-Centered in class activity**
   
   **A. Classroom**
   
   1. Have the class read selections by Twain.
   2. If available, show the movie to help students understand materials.
   3. Discuss life of the area as it was in Twain's time.
such as facilitating transportation, and leisure time have a great subject changes in land use and population density.

<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
</table>
| Student will prepare, through discussing, the changes & the terrain & display what is learned through the discussion of living with nature in the area, the students will have a better understanding of healthcare. | I. Student-Centered in class activity

A. Classroom

1. Have the class read the selections by Twain.
2. If available, show the movie to help students understand materials.
3. Discuss life of the area as it was in Twain's time. |

II. Outside Resource and Community Activities

A. Outside classroom

1. Collect magazines or news articles dealing with life on the Mississippi as it is today.
2. Have the students present their findings to the class.
3. Discuss the changes that have been made & the reasons for them.
4. Prepare a collage, poster, bulletin board, etc. which depicts the two eras & how they differ.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td><em>Life on the Mississippi</em>, selected essays by Twain</td>
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<tr>
<td><strong>Magazines:</strong></td>
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<tr>
<td>Look</td>
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<tr>
<td>Life</td>
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<td>Time</td>
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<tr>
<td>Newsweek</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
<td></td>
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<tr>
<td><strong>Movie:</strong></td>
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<tr>
<td><em>Life on the Mississippi</em></td>
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<tr>
<td>Slides of the Mississippi area</td>
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<tr>
<td><strong>Community:</strong></td>
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<tr>
<td>Local library</td>
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<tr>
<td>Magazine drive to find pictures</td>
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<tr>
<td>Picture: or slides gotten from community members</td>
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<tr>
<td>Dept. of Natural Resources</td>
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</tbody>
</table>
Continued and Additional Suggested Learning Experiences
Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Following the suggested learning experiences, the student will be able to state in a written paper the relationship between a man's cultural, economic, social, and political status and his values & attitudes toward the environment.

**Affective:** Through preparing a newscast, the student will come to recognize the relationship expressed in the concept.

**Skills to be Learned**
- Film-making skills
- Interviewing
- Testing or measuring attitudes
- Research

**SUGGESTED LEARNING ACTIVITY**

1. **Student-Centered in class activity**
   - Organize a ten-minute presentation simulating a newscast, focusing on stated concept.
     - Prepare a written newscast
     - Prepare slides and/or film illustrating how cultural, economic, social, and political factors determine status of man's values & attitudes toward his environment.
     - Interview people of the community who represent various economic, social, cultural, and political status, taping their responses (audio & video).
     - For interview, prepare an instrument to measure attitudes.
Economic, social, and political factors determine status and attitudes in an environment.

**SUGGESTED LEARNING EXPERIENCES**

**I. Student-Centered in class activity**

1. Organize a ten-minute presentation simulating a newscast, focusing on stated concept.
   a. Prepare a written newscast
   b. Prepare slides and/or film illustrating how cultural, economic, social, and political factors determine status of man's values & attitudes toward his environment.
   c. Interview people of the community who represent various economic, social, cultural, and political status, taping their responses (audio & video)
      1) White collar, blue collar, etc.
      2) For interview, prepare an instrument to measure attitudes.

**II. Outside Resource and Community Activities**
Resource and Reference Materials

Publications:
- Political Attitudes in Children by Robert Hess.
- The Cultural Basis of Our Environmental Crisis by Louis Moncrief.

Audio-Visual:
- videotape newscasts for analysis

Community:
- local news people of TV, radio, and newspaper
- the community
- library (materials on various cultures & their attitudes toward the environment)
9. Man has the ability to manage, manipulate, and change his environment.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Student at the end will be able to demonstrate his perception & understanding of concept #9 by his own oral/visual presentation to the class.

**Affective:** The student will demonstrate his awareness of how he can change his own world by researching a local ecological problem, preparing a movie, & then showing this to other students or community groups.

**Skills to be Learned**
- Demonstration
- Interview
- Research
- Observation

**SUGGESTED LE**

1. **Student-Centered in class activity**
   - **A. Classroom**
     - 1. Show the NBC movie, *Abandoned*.
     - 2. Discuss the film's music, narration, & selection of subject.
     - 3. Discuss the subject's presentation, viz. ability to manipulate a local ecological problem. Show movie again to re-emphasize points or show them for the first time.
     - 4. Research - In areas the students live, abandoned cars may not be the ecological issue. Seek out key ecology issue in the news media, personal observation, view of local ecology. Now, make a movie showing a local menace. Accompany it with commentaries or appropriate music. (If movie is too expensive, maybe a slide study would work.)
**Discipline Area**: Language Art

**Subject**: Film Study

**Problem Orientation**: Land Use

**Grade**: 11

### SUGGESTED LEARNING EXPERIENCES

#### I. Student-Centered in class activity

**A. Classroom**

1. Show the NBC movie, *The Abandoned*.
2. Discuss the film technique, music, narration coordination & selection of subject matter.
3. Discuss the subject used for presentation, viz. - man's ability to manipulate environment. Show movie again to re-emphasize points or to show them for the first time.
4. Research - In areas where the students live, abandoned cars may not be the environmental issue. Seek out the key ecology issue in the area through the news media, personal observation, & interview of local ecology group. Now, make a movie showing one element of the local ecology menace. Accompany it with commentaries or appropriate music. (If movie is too expensive, maybe slide case study would work.)

#### II. Outside Resource and Community Activities

**A. Community**

1. Show two or three of the best movies submitted by the class at the next PTA meeting or at an all school assembly to spur these groups to some ecological action.
Resource and Reference Materials

<table>
<thead>
<tr>
<th>Publications:</th>
<th>Continued and Additional Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speaking By Doing, National Textbook Co.-Skokie, Ill.</td>
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</table>

Audio-Visual:

<table>
<thead>
<tr>
<th>The Abandoned</th>
<th>Alone in the Midst of the Land</th>
</tr>
</thead>
<tbody>
<tr>
<td>from ABC-IV Educational Enterprises, Room 1040, #007901, $10.00, 30 Rockefeller Plaza, New York, N.Y. 10020</td>
<td>A fine collection of movie write-ups all dealing with ecology</td>
</tr>
</tbody>
</table>

Community:
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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<td>Land Enter-Cl, plaza,</td>
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</table>
Short-term economic gains may produce long-term environmental losses.

BEHAVIORAL OBJECTIVES

Cognitive: Each student will be able to make a written statement on the effect of the manipulation of the land by man through the reading of Grapes of Wrath.

Affective: By discussing the novel, Grapes of Wrath, and by collecting contemporary articles concerning man's conflict with the land, the student presents an understanding of what happens when the land does give out.

Skills to be Learned
- Relating to community attitudes on the land
- Writing reactions to human dilemma
- Analyzing good literature for ecological references

SUGGESTED LEARNING ACTIVITY

I. Student-Centered in class activity
   1. Read Grapes of Wrath.
   2. Answer discussion questions concerning ecological significance.
   3. React in writing to photos of depravation and poverty.
Term economic gains may long-term environmental

**Discipline Area English**

**Subject** English

**Problem Orientation Land Usage Grade II**

<table>
<thead>
<tr>
<th>A. ORAL OBJECTIVES</th>
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<tbody>
<tr>
<td>Each student to make a statement on the manipulation of the land by man</td>
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<tr>
<td>By discussing <em>Grapes of Wrath</em>, the students an understanding of what the land is.</td>
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<thead>
<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
<th>II. Outside Resource and Community Activities</th>
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<tbody>
<tr>
<td>1. Read <em>Grapes of Wrath</em>.</td>
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<tr>
<td>2. Answer discussion questions concerning ecological significance.</td>
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<tr>
<td>3. React in writing to photos of deprivation and poverty.</td>
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<tr>
<td>1. Find contemporary articles and photos concerning man's conflict or dependence on the land.</td>
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<tr>
<td>3. Research what is being done in the community to insure the land's continued productivity.</td>
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Resource and Reference Materials

Publications:
- Grapes of Wrath, John Steinbeck
- Ecology, a teaching unit from Campus book club including Walden, Born Free and The Bear
- Scholastic Book Services, 50 West 44th Street, New York, New York 10036

Audio-Visual:

Community:
<table>
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<tr>
<th>Steinbeck</th>
<th>Continued and Additional Suggested Learning Experiences</th>
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<td>it from</td>
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<td>reading</td>
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<td>The Bear</td>
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<td>es,</td>
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<td>New York,</td>
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</table>
Individual acts, duplicated or compounded, produce significant environmental alterations over time.

Cognitive: Through the research of contemporary writing, the student will learn the importance of recycling and demonstrate this understanding by participating in an actual glass drive.

Affective: The student, through actual participation in a civic problem, develops an understanding of the important part he can play in altering his environment.

Skills to be Learned:
- Group discussion
- Active participation
- Assessment of an activity

I. Student-Centered in class activity
   A. Introduce the essentials of group discussion or planning
   B. Introduce an environmental cause (glass disposal, paper disposal)
   C. Make classroom committees responsible for:
      1. Writing handout sheets
      2. Writing newspaper articles
   D. Check sources for ideas which could be used to increase community impact