Presented in this teacher's guide for grades 10-12 are lesson plans and ideas for integrating art (drawing, painting, graphics, photography, and commercial art) 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 outlined. 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 for Project I-C-E (Instruction-Curriculum-Environment). (BL)
A SUPPLEMENTARY PROGRAM FOR ENVIRONMENTAL EDUCATION

DISCIPLINE AREA: Art

GRADE: 10-12

1. Drawing
2. Painting
3. Graphics
4. Photography
5. Commercial Art

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
(after Dec. 1, 1972 - 468-7464)

Robert Warpsinski, Director
Robert Keilner, Asst. Director
George Howlett, E.S.E.A. Specialist
PROGRAM FOR ENVIRONMENTAL EDUCATION

Art  GRADE 10-12

1. Drawing
2. Painting
3. Graphics
4. Photography
5. Commercial Art

Title III E.S.E.A.
in CESA's 3-8-9

Wisconsin  54301
(414) 972-468-7464

Robert Warpinski, Director
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"Oikus" for house is the Greek origin of the term "ecology". It studies our house—whatever or wherever it may be. Like an umbrella, it must expand or contract to fit many ranges—natural and man-made. In our environment, our many "houses" if we omit rancor and cite long-term complexities. Our "oikus" uses the insights of all subjects. The multidisciplinary program like ours necessarily results. Also, like many environments, our many "houses" if we omit rancor and cite long-term complexities. Our "oikus" uses the insights of all subjects. The multidisciplinary program like ours necessarily results. Also, like an umbrella, it must expand or contract to fit many ranges—natural and man-made. We are not looking for a long time, our program ranges K thru 12. The environment mirrors our minds. Let us become masters of our house by replacing the Greek "Know thyself and thine house." with "Know thyself and thine house."

1. Written and designed by your fellow teachers, this guide is written to fit appropriately into existing, logical course content.
2. Each page or episode offers suggestions. Knowing your students, adapt or adopt. Limitless chances are here for your experience. Many episodes are self-contained, some open-minded, still others developed over a few days.
3. Try these episodes, but please pre-plan. Why? Simply, no guide or curriculum will work unless viewed in the context of your own class. After using an episode, fill out the attached evaluation form, or request more of these forms. Send them singly.
4. React to this guide with scratch ideas and notes on the episode. We sincerely want your reactions or suggestions—negative and positive. Evaluations are the key in telling us "what works" and in aiding the guides.

TERMS AND ABBREVIATIONS

ICE-RMC is Project ICE Resource Materials Center serving all school districts in CESA 3, 8, and 9. Check the Project ICE Bulletin for information on resources. Our address and phone number is on this guide's cover or call us for any materials or help.

BAVI is Bureau of Audio Visual Instruction, 1327 University Avenue, Madison, Wisconsin 53701 (Phone: 608-262-1644).

Cognitive means a measurable mental skill, ability, or process. Affective refers to student attitudes, values, and feelings.
PREFACE

Our house is the Greek origin of the term "ecology". Environmental education house—whatever or wherever it may be. Like an umbrella, our house can contract to fit many ranges—natural and man-made. We can add quality to our house, our many "houses" if we omit rancor and cite long range gains, costs, and values. Our "oikus" uses the insights of all subjects. Thus, a rational, positive, binary program like ours necessarily results. Also, since attitudes grow over our program ranges K thru 12. The environment mirrors our attitudes or our values have their origin in the "oikus" of our collective and individual "houses" become masters of our house by replacing the Greek adage of "Know thyself" and thine house.

And designed by your fellow teachers, this guide is supplementary in nature—appropriately into existing, logical course content. Each or episode offers suggestions. Knowing your students best, you decide what you need or adopt. Limitless chances are here for your experimentation and usage. Episodes are self contained, some open-minded, still others can be changed or used over a few days. Read through the episodes, but please pre-plan. Why? Simply, no guide has all the answers, but an episode, fill out the attached evaluation form in the back. Use, use, use, or request more of these forms. Send them singly or collectively to us. We rely on your reactions or suggestions—negative and positive. Your evaluations are the key in telling us 'what works' and in aiding our revisions of guides.

ABBREVIATIONS

Project ICE Resource Materials Center serving all public and non-public districts in CESA 3, 8, and 9. Check the Project ICE Bibliography of available materials. Our address and phone number is on this guide's cover. Feel free to write or request any materials or help.

Bureau of Audio Visual Instruction, 1327 University Avenue, P. O. Box 2093, Wisconsin 53701 (Phone: 608-262-1644).

Indicates a measurable mental skill, ability, or process based on factual data. E refers to student attitudes, values, and feelings.
ACKNOWLEDGEMENTS: The following teachers and consultants participated in the development of the Supplementary Environmental Education Guide:

**CESA #3**
- D. C. Aderhold, Bonduel
- John Anderson, Peshtigo
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- LeRoy Gerl, Oconto
- Karen Grunwald, St. James (L)
- William Harper, Lena
- Sister Claudette, St. Charles
- Ervin Kunesh, Marinette
- Kathleen LeBreck, Oconto
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- Arthur Schenk, Suring
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- Kenneth Kappell, St. Aloysius
- Kenneth Keliher, Appleton
- Everett Klinzing, New London
- Fred Krueger, Oshkosh
- Jim Krueger, Winneconne
- Mae Rose, LaPointe, St. John High
- Rosemarie Lauer, Hortonville
- Robert Lee, Neenah
- Harold Lindhorst, St. Martin (L)
- Dennis Lord, Little Wolf
- Robert Meyer, Neenah
- Arnold Neuhiel, Shiocton
- James Nuthals, Lourdes
- Connie Peterson, St. Martin (L)
- Rosemary Rafath, Clintonville
- Mark Reddel, St. Martin (L)
- Gladys Roland, Little Wolf
- Kathryn Rowe, Appleton
- Mary Margaret Sauer, Menasha
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- Ginger Stuvetraa, Oshkosh
- Richard Switzer, Little Chute
- Tim Van Susteren, Holy Name
- Lila Wertsch, St. Margaret Mary
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Emerich, Hortonville
Ercegovac, Winneconne
Geeding, Menasha
Hale, Winneconne
Huss, Freedom
Lois Jonet, Holy Angels
Kappell, St. Aloysius
Kelher, Appleton
Klinzing, New London
Krueger, Oshkosh
Kueger, Winneconne
Rose LaPointe, St. John High
Krueger, Hortonville
Lee, Neenah
Lindhorst, St. Martin (L)
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Meyer, Neenah
Neuzil, Shiocton
Nuthals, Lourdes
Peterson, St. Martin (L)
Rafath, Clintonville
Reddel, St. Martin (L)
Roland, Little Wolf
Rowe, Appleton
Sauer, Menasha
Schaefer, Kaukauna
Smith, St. Galvary (L)
Stuveraa, Oshkosh
Switzer, Little Chute
Susteren, Holy Name
Wertsch, St. Margaret Mary
Wolf, Kimberly
Farrell, Menasha

CESA #9

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Merle Colburn, Algoma
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Roberta Dix, St. Joseph Acad.
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Phyllis Ellefson, Wash. Isle.
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Mike Gleffe, St. Matthews
Herbert Hardt, Gibraltar
Gary Heil, Denmark
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Catherine Huppert, DePere
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Kris Karpinen, West DePere
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William Roberts, Sturgeon Bay
Roger Roznowski, Southern Door
Jan Serrahn, Sevastopol
Calvin Siegrist, How.-Suam.
Mary Smith, Green Bay
Carol Trimberger, Kewaunee
Mary Wadzinski, How.-Suam.
SUGGESTED ART ACTIVITIES FOR CHILDREN

1. Draw impressions of noises with eyes closed
2. Field trips - drawing
3. Effect of light and shadow
4. Design elements - shapes, line textures
5. Texture studies
6. Line & repeat patterns (studies)
7. Architecture & building studies (bridge)
8. Landscaping problems
9. Tree stumps - design piece of furniture from particular stump
10. Perspective studies
11. Camouflage building (out of available elements)
12. Time & motion studies (swings, playground equipment, etc.)
13. Colors of nature - variations of color in a familiar object
14. Draw objects from a different point of view
15. Photographic studies
16. Creative writing & dramatics
17. Designing with organic shapes
18. Mime - action drawings
19. Mime - drawings in light and shadow
20. Mime - movement drawings
21. Mime - abstract drawings

WINTER

1. Snow & ice patterns
2. Snow & ice plant forms
3. Brooding snow form patterns
4. Winter study (bridge building)
5. Snow & ice design
6. Ornamental snow forms
7. Natural snow forms
8. Ornamental snow forms
9. Artificial snow forms
10. Winter scenery drawings (snow, ice, etc.)

SUMMER

1. Designing with geometric shapes
2. Summer plant forms
3. Summer naturally occurring patterns
4. Summer plant formations
5. Summer forms
6. Summer study (building)
7. Summer design
8. Summer natural forms
9. Summer abstract forms
10. Summer scenery drawings (trees, water, etc.)

SPRING

1. Designing with sequential forms
2. Spring plant formations
3. Spring naturally occurring patterns
4. Spring plant formations
5. Spring design
6. Spring natural forms
7. Spring abstract forms
8. Spring scenery drawings (trees, water, etc.)

AUTUMN

1. Designing with structured forms
2. Autumn plant forms
3. Autumn naturally occurring patterns
4. Autumn plant formations
5. Autumn design
6. Autumn natural forms
7. Autumn abstract forms
8. Autumn scenery drawings (trees, water, etc.)
SUGGESTED ART ACTIVITIES FOR OUTSIDE EXPERIENCES

1. Definitions of noises with eyes
   - drawing
2. Light and shadow
3. Materials--shapes, line textures
4. Mathematics
   - architecture
5. Bright patterns (studies)
6. Site & building studies (bridge)
7. Shadow problems
8. Building (out of available elements)
9. Collage studies (swings, playground equipment, etc.)
10. Texture--variations of color
    - over object
11. Collage (from a different point of view
    - studies
12. Actors and dramatics
13. Art materials
14. Suggestive ideas
15. Suggested art activities for outside experiences
16. Detailed biological drawings
17. Microscopic drawings
18. Mathematics--architecture
19. Music & visual expressions--slide, music show

WINTER--SEASONAL IDEAS
1. Snow sculptures
2. Snowflake patterns
3. Black & white (high contrast) photography
4. What's Happening Under The Snow (winter tree shapes)
5. Study ice formations
6. Contrast of winter colors
7. Tree sculptures (personifying)
8. Collage without harming environment
9. Angels in the snow or other man-made snow patterns
10. Leaves turning color in fall--unnatural colors for trees (could be used with a painting or color lesson)
Films - General

Art and Perception: Learnin to See, 16 3/4 min.

Art in Our World, 11 min., color, Jr.-Sr. high

Art Discovered in Nature, 11 min., color, primary

Changing Art In a Changing World, 21 min., color

Ideas for Art, 10 min., color, elementary

Look At That!, 10 1/2 min., color, primary/elementary

Sources of Art, 11 min., color, elementary/Jr.-Sr.

B. F. A. Educational Media, 2211 Michigan Ave

May be available for rental from:
University of Wisconsin
Bureau of Audio-Visual Instruction
1327 University Avenue
Madison, Wisconsin 53701

Books - General (to be used in conjunction with ep

A Dictionary of Art Terms and Techniques, Mayer R
York, 1969.

The Art of Color and Design, Graves Maitland E., Ml

Mayer, Ralph, The Artist's Handbook of Materials a
New York.

Maurello S. Ralph, Commercial Art Techniques, Tud

Menesini, Mario N., The Environmental School, Edu
Crinda, California, 1970.
REFERENCES

A Pictorial Survey of Greek Art: The Ancient World, 21 min., color, elementary/Jr.-Sr. high

Color, Jr.-Sr. high

11 min., color, primary/elementary

Color, elementary/Jr.-Sr. high

World, 21 min., color, elementary/Jr.-Sr. high

Color, elementary

Color, primary/elementary

Color, elementary/Jr.-Sr. high

World, 21 min., color, elementary/Jr.-Sr. high

Color, elementary/Jr.-Sr. high

Media, 2211 Michigan Avenue, Santa Monica, Calif. 90404.

Rental from:

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Hans in Instruction

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Hans in conjunction with episodes) in

Hand Techniques, Mayer Ralph, Thomas Y. Crowel Co., New


Handbook of Materials and Techniques, 3rd ed., Viking Press,

Environmental School, Educational Consulting Service,
C. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

**Behavioral Objectives**

**Cognitive:** Each student should be able to draw an action sketch illustrating a pressure force or thrust and to complete its background with lines emphasizing the action.

**Affective:** Students will show an awareness of the changes which pressure makes in the environment.

**Skills to be Learned**
- Pencil & Pen Sketching

**Suggested Learning**

1. **Student-Centered in-class activity**
   - A. Discuss & illustrate on blackboard "thrust" or pressure in nature.
     - 1. Paint thrust (shoulder punch)
     - 2. Centripetal (ripples)
     - 3. Swelling (blowing balloons)

2. **Using the action pictures, make pencil sketches illustrating thrust and add a background of lines emphasizing and completing the composition in ink as one of action in the movement of air.**
Organisms interact. Discipline Area: Art

Lives and their Subject: Drawing

forming intricate Problem Orientation: Environmental

an ecosystem. Thrust: Grade 9-12

OBJECTIVES

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Discuss & illustrate on blackboard "thrust" or pressure in nature.
1. Paint thrust (shoulder punch) <
2. Centripetal (ripples) ◊
3. Swelling (blowing balloons) ⊙

B. Using the action pictures, make pencil sketches illustrating thrust and add a background of lines emphasizing and completing the composition in ink as one of action in the movement of air.

II. Outside Resource and Community Activities

A. Using magazines, students will research action pictures illustrating thrust.
### Resource and Reference Materials

<table>
<thead>
<tr>
<th>Publications</th>
<th>Community:</th>
</tr>
</thead>
</table>
| **Space, Form & Vision**<br>Graham Collier; Prentice Hall  
**Arts & Activities**, April '72                                           |            |
| **Audio-Visual:**<br>"Rhythm & Movement in Art"<br>B.F.A. Educational Media  
2211 Michigan Ave.<br>Santa Monica, Calif. 90404                            |            |

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**Continued and Additional**
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>SUCCESS CRITERIA</th>
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<tbody>
<tr>
<td>Cognitive: Each student should know the technique of texture rubbing and be able to simulate various textures themselves.</td>
<td>I. Student-Centered activity</td>
</tr>
<tr>
<td>Affective: The student should acquaint himself with tactile perceptions and respond to the importance of surface textures.</td>
<td>A. Show filmstrip or back of sheet of paper.</td>
</tr>
<tr>
<td>Skills to be Learned</td>
<td>B. Have students make and rubbings and of them together of sheet of paper.</td>
</tr>
<tr>
<td>Technique of making rubbings with black crayons</td>
<td>C. Select three of in order of visual most intense to value and unobstruct texture.</td>
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<tr>
<td>Texture simulation with ink and assorted tools</td>
<td>D. Using a rectangle divide into third and in the divide simulate the texture using ink and sponge, dry brush, etc.</td>
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</table>
Living organisms interact with themselves and their environment, forming an intricate ecosystem.

**Discipline Area** Art

**Subject** Drawing

**Problem Orientation** Tactile Perception

**Grade** 9-12

**OBJECTIVES**

I. Student-Centered in class activity

A. Show filmstrip suggested on back of sheet.

B. Have students make a number of rubbings and mount all of them together on a large sheet of paper.

C. Select three of the rubbings in order of visual dominance - most intense, middle value and unobtrusive texture.

D. Using a rectangular paper, divide into three spaces, and in the divisions simulate the three textures using ink and pen, wood, sponge, dry brush, etc.

**SUGGESTED LEARNING EXPERIENCES**

II. Outside Resource and Community Activities

A. Suggest the following as possible sources for rubbings:

Wood, metal, rocks, plastic, concrete, textiles, bricks, leaves, skin, or any surface which excites the eye and imaginatively activates the touch sense.

B. Have them make as many rubbings as possible, both indoors and out.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Resources</th>
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<tbody>
<tr>
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<td>Form, Space &amp; Vision, Graham Collier, Prentice Hall</td>
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<tr>
<td>Rubbings of Mars Sculpture, Arts 42:53 Nov. '67</td>
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<tr>
<td>Audio-Visual:</td>
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<tr>
<td>Series on Environmental Awareness, KG'10; I-C-E RMC</td>
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<td>Santa Monica, Calif. 90404</td>
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</table>
2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

BEHAVIORAL OBJECTIVES

Cognitive: Each student must recognize characteristics of texture and make a composition of textured areas using magnified skin as a preliminary sketch.

Affective: Students will be alert to the interactions in all things.

Skills to be Learned

- Sketching
- Composing a textured composition

SUGGESTED LEARNING ACTIVITIES

I. Student-Centered in class activity

A. Students use a magnifying glass to examine the backs of their hands and fingers, and make several enlarged sketches.

B. Using the resource sketch the students shall make, all texture drawings of the enlarged areas of skin. They will texture them and form a composition which will balance in line, color and weight.
**Arts** intersect with their **Discipline Area** Art

**Subject** Drawing

**Problem Orientation** Observation

**Grade** 9-12

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**SUGGESTED LEARNING EXPERIENCES**

<table>
<thead>
<tr>
<th><strong>I. Student-Centered in class activity</strong></th>
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</tbody>
</table>
### Resource and Reference Materials

**Publications:**
- "Design of Images", *Architectural Design*, 39:179 April '69
- "Design for Eye & Mind", *Industrial Design*, 16:68-9, Sept. '69

**Audio-Visual:**
- "Discovering Texture"
- "What is Texture"
- "Texture Techniques"

B.F.A. Educational Media
2211 Michigan Avenue
Santa Monica, Calif. 90404

### Community:
<table>
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<tr>
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<td>Architectural</td>
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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

Disciplines: Subject

Problem Concept

Cognitive: The student should know the techniques of drawing and shading and be able to draw a wood form, shading the depressed areas and continuing the contour line to a finished drawing.

Affective: Students will become more conscious of line contour as an artistic element.

Skills to be Learned

Observation

Awareness

Control and ability to train the hand and eye to work together

SUGGESTED ACTIVITIES

I. Student-Centered activity

A. Make large chains of wood forms, contour line sweeping rhythmic movement.
SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

- A. Make large charcoal drawings of wood forms, using the contour line to produce a sweeping rhythm of arm movement.

II. Outside Resource and Community Activities

- A. Pieces of driftwood (If not available, use tree branches or pictures of wood forms).

Discipline Area: Art
Subject: Drawing
Problem Orientation of Line: Grade 9-12

Awareness of an intricate problem orientation system.
Resource and Reference Materials

Publications:
- Space, Form & Vision, Graham Collier, Prentice Hall
- Drawing, A Search for Form, Mignaini, Joseph & Lovoos, Janis

Audio-Visual:
- Introduction to Contour Drawing,
  B.F.A., Educational Media
  2211 Michigan Avenue
  Santa Monica, Calif. 90404

Community:
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<th>SUGGESTED LEARNING</th>
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<tbody>
<tr>
<td>Cognitive: Each student will translate the structure of the natural object he has chosen and make a design based on an analysis of that structure.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>Affective: Students will show an awareness of form which is entirely dependent on structure.</td>
<td>A. Show filmstrips to class.</td>
</tr>
<tr>
<td>Skills to be Learned Organization of a surface design Development of ability to make a drawing on the basis of observation and analysis</td>
<td>B. Discuss looking carefully and deciding what makes a particular object interesting to look at.</td>
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<tr>
<td></td>
<td>C. Select a pattern from one of these objects and draw a simple design using the pattern as a theme.</td>
</tr>
</tbody>
</table>
Discipline Area: Art
Subject: Drawing
Problem Orientation: Awareness
Grade: 9-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Show filmstrips to class.
   B. Discuss looking carefully and deciding what makes a particular object interesting to look at.
   C. Select a pattern from one of these objects and draw a simple design using the pattern as a theme.

II. Outside Resource and Community Activities
   A. Collect natural objects brought in by class.
      Suggest: fruit, weed pods, sea shells and vegetables.
Resource and Reference Materials

Publications:
- "Art of Wonder & w World," Jean Mary Morrow
- "What is a Designer: Education & Practice," Design, 233:117, Jan. '70
- Pattern Language, Architectural Forum 132:52-9, Jan. '70

Audio-Visual:
- "Line as Structure, Texture, and Pattern", B.F.A, 2211 Michigan Ave., Santa Monica, Calif. 90404
- "Discovering Creative Pattern", B.F.A.
- "Pattern" FA 106, I-C-E RMC

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

### Behavioral Objectives

**Cognitive:** Student should know the techniques involved in producing depth in a line drawing. i.e. Make some lines thick, make some lines short and vary the lines in thickness and height.

**Affective:** Students should become more conscious of the vast range of things within the universe.

### Skills to be Learned

- Rapid sketching techniques
- Line drawing in 2 dimensional space in vertical & lateral directions

### Suggested Learning Experiences

1. Student-centered in class activity
   - A. Make a series of rapid twig notes of expressive line quality.
   - B. Make 20 notes (out-of-doors) and indicate the wide range of vertical-line space divisions that can be extracted from tree groupings.
   - C. Discussion in class as to the significant conclusions that are to be drawn from the notations of tree groupings.
### SUGGESTED LEARNING EXPERIENCES

#### I. Student-Centered in Class

- **A. Field Trip**
  - Taking pencil/pointed pens or ball point pens and sketch books, for sketching and note-taking. Keep remembered statements of appearances and remembered statements of facts for reference.

#### II. Outside Resource and Community Activities

- **A. Make a series of rapid twig notes of expressive line quality, out-of-doors.**
- **B. Make 20 notes (out-of-doors) and indicate the wide range of vertical line space divisions that can be extracted from tree groupings.**
- **C. Discussion in class as to the significant conclusions that are to be drawn from the notations of tree groupings.**
### Resource and Reference Materials

**Publications:**
- *Form, Space & Space*, Graham Collier, Prentice Hall

**Audio-Visual:**
- *Line & Space*  
- *Introduction to Drawing Materials*

Both available from:
- B.F.A. Educational Media  
- 2211 Michigan Ave.  
- Santa Monica, Calif. 90404

### Community:
An adequate supply of clean air is important because most organisms depend on oxygen, through respiration, to release the energy in their food. Students will show an awareness of the need for clear air.

**SUGGESTED ACTIVITIES**

1. **Student-Centered in Class**
   - A. See movie: "Air Pollution - A Deadly Killer" and to draw one kind of air masses and four kinds of air formation using pastel, which is moving and constantly changing.
   - B. Using pastel, make landscapes using air as the key to composition.
   - C. Class to make free drawings of air formation, air, smoke, and smog and form is moving and constantly changing.

**KNOWLEDGE OBJECTIVES**

1. Each student should be able to recognize three kinds of air masses and four kinds of air formations, show composition as the key to composition.

**SKILLS TO BE LEARNED**

- Research skills
- Drawing & painting skills
- Critical thinking skills
The supply of clean air is essential because most organisms depend on it for their energy in respiration, to obtain energy in their food.

**Objective:** Each student will recognize air masses and their kind in a given situation. Students will show awareness of the need for air masses.

**Suggested Learning Experiences**

1. **Student-Centered in Class Activity:**
   - A. See movie; "Air Pollution: Take a Deep & Deadly Breath."
   - B. Using pastel, make imaginative landscapes using a cloud formation as the key to the composition.
   - C. Class to make free imaginative drawings of space, air formations, smoke, vapor, steam, smog—where form is moving and constantly changing.

2. **Outside Resource and Community Activities:**
   - A. Sketches made by students of clouds.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Support Information</th>
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<tbody>
<tr>
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<tr>
<td>Landscape Painting, J. Hayes, Connoisseur, 173:17-24, January, 1970</td>
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<td>Possibilities of Drawing, Art Forum, 8:50-5, October, 1969</td>
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</table>
**Cognitive:** Students will be able to recognize cloud masses and to sketch three types of formations; i.e., cirrus, cumulus, strato, numbus.

**Affective:** Each student will be sensitive to and appreciate the need for clean air.

**Skills to be Learned**
- Recognition of atmospheric conditions, types of clouds, pollutants, and to learn how to draw accurately and to reproduce imaginatively atmospheric conditions on paper.

### Behavioral Objectives

<table>
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<tr>
<th>Disciplin</th>
<th>Subject</th>
<th>Problem of Education</th>
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</table>
| **C.** An adequate supply of clean air is essential because most organisms depend on oxygen, through respiration, to release the energy in their food. | **CO**
| **E.** | **N**

### Suggestions

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<tr>
<th>I. Student-Centered activities</th>
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<tbody>
<tr>
<td><strong>A.</strong> Drawings of the sketches made by the student</td>
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<td>the outdoor sketch</td>
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<th><strong>B.</strong> Student will discuss atmospheric conditions to an adequate supply of air and the importance it has in everyone's life.</th>
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The supply of clean air is necessary for most organisms; in fact, they depend on clean air for their survival. Organisms use air for respiration, to obtain oxygen necessary in their food.

### Discipline Area
Art

### Subject
Drawing

### Problem Orientation
Clean Air

#### Grade 9-12

#### Objectives

I. Student-Centered in class activity

A. Drawings of the sky will be made by the students using the outdoor sketches—use various media. 
   1. Charcoal
   2. Ink wash
   3. Water color
   4. Pastel

B. Student will discuss atmospheric conditions pertaining to an adequate supply of clean air and the importance it has in everyone's life.

#### Suggested Learning Experiences

II. Outside Resource and Community Activities

A. Class will meet outside to sketch the sky during various atmospheric conditions.

B. Field trip to the weather bureau.

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<td>Watercoloring: Beyond Rendering, American Artist 33:72-74, December, 1969</td>
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<td>Sketching from Life: Robert Weaver Shows How, American Artist, 34:62-7 May, 1970</td>
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- **Audio-Visual:**
  - Seeing Trees and Clouds, series of four films, B. F. A. Educational Media

### Community:
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: Given comparative geographic conditions, the student will draw a picture illustrating the natural area of his choice. |
| Affective: By observation and discussing natural resources, the student will develop an appreciation and respect for the natural areas of the earth. |

### Skills to be Learned

1. Landscape drawing
2. One paint & color perspective

### SUGGESTIONS

| I. Student-Centered in activity |
| A. Discuss the varie of natural areas in the immediate |
| B. Break into groups compare by discuss how geographical location has affe individuals. Hav students sketch the surrounding area illustrate how the region has influe their lives. |
| C. Show movie |
| D. Show film strip of area |
| E. Go outside to ske |
| F. Compile a file of natural areas clipping magazine during a class pe |
SUGGESTED LEARNING EXPERIENCES

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<td>A. Discuss the variety of natural areas found in the immediate vicinity</td>
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<td>B. Break into groups to compare by discussion how geographical location has affected individuals. Have students sketch their surrounding area to illustrate how this region has influenced their lives.</td>
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<td>C. Show movie</td>
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<td>D. Show film strip on Natural area</td>
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<td>E. Go outside to sketch</td>
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<td>F. Compile a file of pictures of natural areas by clipping magazine pictures during a class period.</td>
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Resource and Reference Materials  Continued and Additional  

Publications:
- National Geographic Magazines
- Arizona Highways
- Canadian Magazine
- Landscape Drawing, J. Hayes
  *Connoisseur* 173:17-24 Ja'70

Audio-Visual:
- Kellogg Public Library films
- Alaska 49th State
- Continent of Africa
- Forest Murmurs
- Hawaii 50th State
- Heritage of Splendor

Community:
- Contact the university.
- Community Outreach
  Robert S. Cook, director
  LS-407 Main Campus
Continued and Additional Suggested Learning Experiences
Cognitive: Each student should be able to make a drawing simulating one or more types of rock formation.

Affective: Students will show an awareness of the variety of rock formations in the earth structure.

Skills to be Learned:
- Organizational skills
- Imaginative problem-solving skills
- Use of pencils

I. Student-Centered Activity
- Class should make a drawing of strange or fantastic rock surfaces
  1. Cliff
  2. Free-standing planes
  3. Composed of planes
  4. Curved surfaces
  5. Stratified horizontals
  6. Verticals
  7. Both directions

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

Discipline Area
Subject: Problem Orientation

SUGGESTED LEARNING ACTIVITIES
- Each student should be able to make a drawing simulating one or more types of rock formation.
- Students will show an awareness of the variety of rock formations in the earth structure.

ESEA Title III - 59-70-0135-2 Project I-C-E
Discipline Area: Art  Subject: Drawing  Problem Orientation: Awareness  Grade: 9-12

<table>
<thead>
<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>A. Class should make a drawing of strange or fantastic rock surfaces.</td>
</tr>
<tr>
<td>1. Cliff</td>
</tr>
<tr>
<td>2. Free standing</td>
</tr>
<tr>
<td>3. Composed of planes</td>
</tr>
<tr>
<td>4. Curved surfaces</td>
</tr>
<tr>
<td>5. Stratified horizontally</td>
</tr>
<tr>
<td>6. Vertical</td>
</tr>
<tr>
<td>7. Both directions</td>
</tr>
<tr>
<td>II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td>A. Rocks collected on a field trip or brought to class by students</td>
</tr>
<tr>
<td>B. Pictures of rock formations in National Geographic magazines or books on geology.</td>
</tr>
</tbody>
</table>
Resource and Reference Materials

Publications:
- Form Space & Vision, Graham Collier
- Sketching from Life: Robert Weaver Shows How, American Artist 34:62-7 May '70

Audio-Visual:
- Introduction to Drawing Materials
  BFA Educational Media
  2211 Michigan Ave.
  Santa Monica, Calif. 90404

Community:
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.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING ACTIVITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive:</strong> Students will discuss cleanup problems associated with increased leisure time activities and population density.</td>
<td>1. Student-Centered in class activity</td>
</tr>
<tr>
<td><strong>Affective:</strong> Students perceive that attention-getting devices (if available in sufficient quantity) do help control man-made litter.</td>
<td>A. Advertising layout</td>
</tr>
<tr>
<td><strong>Skills to be Learned</strong></td>
<td>2. Student lays out a poster with appropriate slogan &amp; illustration.</td>
</tr>
<tr>
<td>Advertising layout</td>
<td>3. Suggests where it may be used &amp; how. Completed posters may be used as a display on ecology.</td>
</tr>
<tr>
<td>Poster design</td>
<td></td>
</tr>
<tr>
<td>Lettering (Gothic and/or stylized)</td>
<td></td>
</tr>
</tbody>
</table>
such as facilitating trans-

domestic conditions, popula-

and increased leisure time

influence on changes in land-

vested in population density.

OBJECTIVES

- Students will
- face problems
- increased
- activities
- density.
- Students perceive
- getting devices
- insufficient
- control

<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>1. Advertising layout</td>
</tr>
<tr>
<td>1. Student selects the idea projection from outside resource column.</td>
</tr>
<tr>
<td>2. Student lays out a poster with appropriate slogan &amp; illustration.</td>
</tr>
<tr>
<td>3. Suggests where it may be used &amp; how. Completed posters may be used as a display on ecology.</td>
</tr>
<tr>
<td><strong>II. Outside Resource and Community Activities</strong></td>
</tr>
<tr>
<td>A. Consider community activities in which the students have had experience with (i.e. football &amp; basketball games, swimming &amp; camping, shopping at holiday time and in shopping centers, others which students may suggest)</td>
</tr>
<tr>
<td>B. Consider how clean-up controls succeeded or failed.</td>
</tr>
<tr>
<td>C. Bring examples of litter bags, pictures of unique containers for refuse.</td>
</tr>
<tr>
<td>D. Bring examples of attention drawing posters which have been effective in problem control such as &quot;Smoky the Bear,&quot; &quot;Feed the Cans at McDonald's,&quot; etc.</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td><strong>Publications:</strong></td>
</tr>
<tr>
<td>Power to the Poster, American Artist, 34:33-41, May '70</td>
</tr>
<tr>
<td>Drawing, British Journal of Aesthetics, 10:84-5, Jan. '70</td>
</tr>
<tr>
<td>Where the Medium Lets Down the Message, Design No. 230: 49-53, Oct. '69</td>
</tr>
</tbody>
</table>

| Audio-Visual:                   |
| "Poster," BFA Educational Media |
| 2211 Michigan Avenue            |
| Santa Monica, Calif. 90404      |

<table>
<thead>
<tr>
<th>Community:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trial</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>in Artist, Aesthetics, the Message, '69</td>
</tr>
<tr>
<td>diag</td>
</tr>
</tbody>
</table>
Culturel, economic, social, and political factors determine man's values and attitudes toward his environment.

### Behavioral Objectives

**Cognitive:** Students will discuss and determine implications of the dependency our society has on the material. They will also discuss and determine the implications of the demands made on his resources because of materialism.

**Affective:** After this discussion, the class will be conscious of what material things should be advertised, as they are necessary for human activity.

**Skills to be Learned**
- Poster layout
- Basic lettering
- Developing ideas
8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**Behavioral Objectives**

**Active:** Students will discuss and determine implications of the tendency our society has for materialism. They will also discuss and determine the implications of demands made on his resources because of materialism.

**Active:** After this discussion, the class will be conscious of what material things should be advertised, as they are necessary for human activity.

**Is to be Learned**
- Letter layout
- Lettering
- Layout ideas
- Drawing

**Suggested Learning Experiences**

I. Student-Centered in class activity
   - A. Students should choose an item or product that is necessary to life.
   - B. Student should work out a poster advertising this item.
   - C. Posters should include lettering and main body which pictorially explains theme.

II. Outside Resource and Community Activities
   - A. Current magazines can be scanned for advertisements.
   - B. Advertisements can be placed in groups relating to its cultural, economic, social or political value.
   - C. Is this article or product necessary to my life? This should be the students next concern.
Resource and Reference Materials

Publications:

"Contemporary Colleges", Murray Zucker, Interiors, 129:72
May '70

"Posters should be for people: British poster design awards"
Design, No. 256:18-23 April '70

"Power to the Poster", American Artist, 34:33-41, May '70

Audio-Visual:

"Poster"
B.F.A. Educational Media
2211 Michigan Ave.
Santa Monica, Calif. 90404

Community:
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Survey</td>
<td><em>Revised in 1970</em></td>
</tr>
</tbody>
</table>
Cognitive: The student will recognize characteristics of trees and discuss:

A. Density of street trees
B. General appearance of tree trunks
C. General appearance of street trees compared with those in yards or parks.

Affective: After the discussion, the student will plan a field trip on which they will sketch as many things as possible which were discussed.

Skills to be Learned
- Drawing trees
- Landscape drawing
- Possibly one and two point perspective.

Objectives

I. Student-Centered in Class
II. Outside
   A. Discussion of various aspects of trees
   B. Using the sketches done outside, the class will draw a picture of a street with trees spaced for individual growth.

Problem Orientation

Discipline Area: Art

Subject: Drawing

Aesthetic: After the field trip, the student will review their sketches and discuss the different aspects of trees they observed.
ability to manage, Discipline Area Art
change his Subject Drawing
Aesthetic Problem Orientation Landscaping Grade 9-12

SUGGESTED LEARNING EXPERIENCES

<table>
<thead>
<tr>
<th>ACTIVITIES</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. Discussion of various aspects and characteristics of trees.</td>
<td>A. Field trip to observe and sketch street trees, trees in parks, yards, etc.</td>
</tr>
<tr>
<td>B. Using the sketches done outside, the class will draw a picture of a street with trees spaced for individual growth.</td>
<td>B. Discussion</td>
</tr>
<tr>
<td></td>
<td>1. What is aesthetically pleasing or displeasing about the environment?</td>
</tr>
<tr>
<td></td>
<td>2. Why are certain natural environments considered more beautiful than others.</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
<td>Continued and Additional Suggested</td>
</tr>
<tr>
<td>---------------------------------------------------------------------</td>
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</tr>
<tr>
<td><strong>Publications:</strong></td>
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</tr>
<tr>
<td>Drawing, British Journal of Aesthetics, 10:84-5, Jan. '70</td>
<td></td>
</tr>
<tr>
<td>Outdoor Sketching in Miniature, American Artist, 33:48-9, Summer '69</td>
<td></td>
</tr>
<tr>
<td>Urban Landscape Design, Eckba</td>
<td>Garden Cities of Tomorrow, Howard</td>
</tr>
<tr>
<td>Design with Nature, McHarg</td>
<td></td>
</tr>
<tr>
<td><strong>Audio-Visual:</strong></td>
<td></td>
</tr>
<tr>
<td>Seeing Trees and Clouds, (4 filmstrips), BPA Educational Media,</td>
<td></td>
</tr>
<tr>
<td>2211 Michigan Ave., Santa Monica, Calif. 90404</td>
<td></td>
</tr>
<tr>
<td><strong>Community:</strong></td>
<td></td>
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</tbody>
</table>
Continued and Additional Suggested Learning Experiences
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 applies watercolor techniques in planning a picture illustrating the effect sunlight has on environment.

A. View a movie on watercolor illustrating the effect sunlight has on environment.

B. Several class periods spent in sketching and observing the sun in his life.

C. Make several rapid watercolor washes to simulate the sunlight under various conditions, such as early morning, late afternoon, or after a rain (rainbow).

D. Complete one watercolor painting.

Affective: After this study, the student will be sensitive to the world around him and understand the importance of the sun in his life.

SUGGESTED LEARNING EXPERIENCE

1. Student-Centered activity

A. View a movie on watercolor technique.

B. Several class periods spent in sketching and observing the sun has on city and country life and seasonal changes brought on by more sunlight.

1. Skill in mixing colors

2. Steps in technique of this media

Skills to be learned:

1. Watercolor wash.

2. Stips in technique of this media.

3. Complete one watercolor painting.
<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>A. View a movie on watercolor technique.</td>
</tr>
<tr>
<td>B. Several class periods spent in sketching and observing the effect the sun has on city and country life and seasonal changes brought on by more sunlight.</td>
</tr>
<tr>
<td>C. Make several rapid watercolor washes to simulate the sunlight under various conditions, such as early spring, late afternoon (sunset) or after a rain (rainbow).</td>
</tr>
<tr>
<td>D. Complete one watercolor painting.</td>
</tr>
<tr>
<td><strong>II. Outside Resource and Community Activities</strong></td>
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</tr>
</tbody>
</table>

Sun, the basic energy, is converted into synthesized things can use for

**Sunlight**

Grade 9-12

Discipline Area: Art

Subject: Painting

Problem Orientation: Sunlight

TIVES

I. Student-Centered in class activity
   A. View a movie on watercolor technique.
   B. Several class periods spent in sketching and observing the effect the sun has on city and country life and seasonal changes brought on by more sunlight.
   C. Make several rapid watercolor washes to simulate the sunlight under various conditions, such as early spring, late afternoon (sunset) or after a rain (rainbow).
   D. Complete one watercolor painting.

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>Creative Color, Birren, Farber</td>
<td></td>
</tr>
<tr>
<td>A Sense of Wonder, Carson, Rachel</td>
<td></td>
</tr>
<tr>
<td><strong>Audio-Visual:</strong></td>
<td></td>
</tr>
<tr>
<td>&quot;Modern Art - Renoir&quot; FS 21</td>
<td></td>
</tr>
<tr>
<td>I-C-Z RMC</td>
<td></td>
</tr>
<tr>
<td><strong>Community:</strong></td>
<td></td>
</tr>
<tr>
<td>View outdoors at various times</td>
<td></td>
</tr>
<tr>
<td>of day</td>
<td></td>
</tr>
</tbody>
</table>
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: Each student will be able to paint a watercolor picture using a landscape study made outside.

Affective: Students will show an awareness of the environment through the study and painting of a landscape.

Skills to be Learned
Control of watercolor
A. Wash (large areas)
B. Dry brush (detail)
C. Care & knowledge of tools involved in the use of watercolor.

SUGGESTED LEARN

I. Student-Centered in class activity
A. The class will see "Colors in Nature" a part of "Environmental Awareness" series.
B. A composition will be sketched and painted of a landscape containing trees in foreground and the sky.
Focus Area: Art
Subject: Painting
Problem Orientation: Aesthetic Awareness
Grade: 9-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. The class will see "Colors in Nature" a part of "Environmental Awareness" series.
   B. A composition will be sketched and painted of a landscape containing trees in foreground and the sky.

II. Outside Resource and Community Activities
   A. The students will take sketch books and go outside either as individuals or a group and sketch various landscapes, noting types and position of trees, horizon and colors.
Resource and Reference Materials

Publications:
- Painting Trees, Pitman
- American Tradition in Painting, McCourbey, John W.

Audio-Visual:
- "Seeing Trees & Clouds"
  BFA Educational Media
  2211 Michigan Avenue
  Santa Monica, Calif. 90404
- "Color" FA 101
- I-C-3 RMC

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

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Each student should be able to reproduce a still life composed of at least one natural object and background in watercolor.

**Affective:** Students will show an awareness of the ecosystem through studying and painting.

**Skills to be Learned**

Control of watercolor
A. Wash
B. Dry brush
C. Care and knowledge of tools involved in the use of the media

**SUGGESTED LEARNING EXPERIENCES**

I. Student-Centered in class activity
A. The class will see the filmstrip on "Environmental Awareness".
B. The students will go out into their community either as a group or as individuals and bring back a natural object which will then be studied in detail.
C. The chosen objects will be arranged in a suitable composition for painting.
D. A wash background simulating natural texture and the still life composition will be painted in a painting medium.
organisms interact and their lives and their
forming an intricate
in ecosystem.

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. The class will see the filmstrip on "Environmental Awareness".
   B. The students will go out into their community either as a group or as individuals and bring back a natural object which will then be studied in detail.
   C. The chosen objects will be arranged in a suitable composition for painting.
   D. A wash background simulating natural texture and the still life composition will be painted in a painting medium.

II. Outside Resource and Community Activities
   A. Take a field trip to a wildlife sanctuary or any natural environment (woods, lakes, field, stream) to study nature, its movement, color and composition.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
</tr>
<tr>
<td><em>American Tradition in Painting</em>, McCourbey, John V.</td>
</tr>
<tr>
<td><em>Design With Nature</em>, McHarg, Ian</td>
</tr>
<tr>
<td><em>A Way of Seeing</em>, Teavitt, Helen</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Audio-Visual:</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Environmental Awareness Series</em></td>
</tr>
<tr>
<td><em>I-C-E RMC</em></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Community:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggested Learning Experiences</td>
</tr>
<tr>
<td>--------------------------------</td>
</tr>
<tr>
<td>Continued and Additional Suggested Learning Experiences</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.
<table>
<thead>
<tr>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>A. Have class make wash paintings of sky and grass.</td>
</tr>
<tr>
<td>B. Controlling the medium, add black or orange to grey the blue near the horizon.</td>
</tr>
<tr>
<td>C. Grey the green as the sky--use red with green.</td>
</tr>
<tr>
<td>D. After the background is dry, add details of students' choice in dry brush.</td>
</tr>
<tr>
<td>II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td>A. A ride in the community noting air and land problems--Discuss.</td>
</tr>
<tr>
<td>B. Drive to the coal dock and river to note effect on environment.</td>
</tr>
<tr>
<td>Resource and Reference Materials</td>
</tr>
<tr>
<td>----------------------------------</td>
</tr>
<tr>
<td><strong>Publications:</strong></td>
</tr>
<tr>
<td>Arthur J. Barbour believes in a</td>
</tr>
<tr>
<td>Design Plan, American Artist,</td>
</tr>
<tr>
<td>34:66-7, February, 1970</td>
</tr>
<tr>
<td>Progress Toward Color Coordination,</td>
</tr>
<tr>
<td>RIBA Journal, 76:491, November, 1969</td>
</tr>
</tbody>
</table>

**Audio-Visual:**
- Awareness in the City, Environmental Awareness, filmstrip, I-C-E RNC

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

1. Color Coordination, 1:491, November, 1969
2. City, Environmental Trip, I-C-E RMC
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: Following research and discussion, the student will employ experimental techniques to show the beginning stages of painting.

Affective: The student will appreciate the sophisticated materials available to today's craftsman compared to early painting.

Skills to be Learned

1. Skill in developing pre-historic painting techniques.
2. Skill in mixing pigment from natural materials

SUGGESTED INSTRUCTIONAL ACTIVITY

I. Student-Centered in class activity

A. Begin with a study & discussion of pre-historic & caveman paintings. Show slides

1. Discuss what types of paint they used & how they mixed them.
2. Discuss types of materials they used & how they made them.

B. Experience in mixing own paints from natural materials & brushes

C. Bring in a flat stone to make a painting on similar to caveman painting.
## 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>
| A. Begin with a study & discussion of pre-historic & caveman paintings. Show slides.  
  1. Discuss what types of paint they used & how they mixed them.  
  2. Discuss types of brushes they used & how they made them.  
  B. Experience in mixing your own paints from natural materials & brushes too.  
  C. Bring in a flat stone to make a painting on similar to caveman paintings. | A. Do research in the library on pre-historic painting & subject matter used.  
  | | B. Collect natural products for use in developing, painting materials. |
### Resource and Reference Materials

<table>
<thead>
<tr>
<th>Resource</th>
<th>Description</th>
</tr>
</thead>
</table>
| **The Artists Handbook of Materials & Technique**, Ralph Mayer  
3rd ed. Viking Press |  
Antiquity of The Art of Painting  
Renaissance Quarterly 23 no. 2:  
17 6-7 Summer '70 |

**Audio-Visual:**

**Painting the Creative Process**  
BiA Educational Media  
2211 Michigan Ave.  
Santa Monica, Cal. 90404

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

Materials

Painting

no. 2:

Process
Man has the ability to manage, manipulate, and change his environment. The student should know the techniques of sand painting and produce a sand painting depicting land management. The student will show an awareness of the many types of soil and of some types of management.

Skills to be Learned
Preparing soil for use in sand painting
Composing a well-organized and managed area (such as a park or city section)

Cognitive Objectives
A. Students plan individually the particular scene they wish to paint depicting a managed or manipulated environment. Through class effort, samples of area soils can be collected. Consider colors as well as types. A picture of managed land will be produced. After drying, it may be sprayed with shellac and mounted.

B. Using diluted white glue and brushes, paint an area on cardboard as in plan. When it is dried, it is produced. After drying, it may be sprayed with shellac and mounted.

Suggested Learning Experience

Subject Area
Art

Problem Orientation
C. Environment

Discipline Area
Art

II. Outcomes

A. Student-Centered in class activity

E. No Environment

I. Other

C. Environment
SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Students plan individually the particular scene they wish to paint depicting a managed or manipulated environment. Through class effort, samples of area soils can be collected. Consider colors as well as types.
   B. Using diluted white glue and brushes, paint an area on cardboard and sprinkle with soil as in plan. During the time allotted a picture of managed land will be produced. After drying it may be sprayed with shellac and mounted.

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>Garden City's of Tomorrow, Howard, Ebenzer, Cambridge, Mass, M.I.T. Press, '65</td>
<td></td>
</tr>
<tr>
<td>Audio-Visual:</td>
<td></td>
</tr>
<tr>
<td>Survey of American Painting, Nat. Gallery of Art, Extension Services, Washington, D.C. 20565 FS31 America's Arts &amp; Skills, Part VI The Timeless Southwest, I-C-E RMC</td>
<td></td>
</tr>
<tr>
<td>Community:</td>
<td></td>
</tr>
<tr>
<td>Quarries, gardens, gravel pits, beaches Sand pits</td>
<td></td>
</tr>
</tbody>
</table>
C. 10. Short-term economic gains may produce long-term environmental losses.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
</table>
| **Cognitive**: The student will discuss beauty in nature. He will comprehend the significance of beauty as an aesthetic value which stands out against pollution. | **1. Student-Centered in-class activity**

A. A simple landscape may be sketched on water color paper and the colors of the region chosen can be painted. The sky and ground washed in. Trees roughed in and details worked in as the painting progresses. |

**Affective**: The student will be conscious of the fact that environmental factors such as air, water and land are beautiful in themselves and must be preserved. |

**Skills to be Learned**
- Study of color
- Handling of water color wash
- Care of equipment
<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. A simple landscape may be sketched on water color paper and the colors of the region chosen can be painted. The sky and ground washed in. Trees roughed in and details worked in as the painting progresses.</td>
<td>A. Discussion of the Impressionists' interest in light and how they produce a feeling of movement in water, atmospheric changes and sunshine.</td>
</tr>
<tr>
<td></td>
<td>B. Slides of Impressionist paintings</td>
</tr>
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<td></td>
<td>C. Filmstrip on color</td>
</tr>
<tr>
<td></td>
<td>D. Books of Impressionist paintings and artists.</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>Landscape Drawing, J. Hayes</td>
<td></td>
</tr>
<tr>
<td>Connoisseur, 173:17-24, Jan. '70</td>
<td></td>
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<tr>
<td>Fine Arts Publications-Series II</td>
<td></td>
</tr>
<tr>
<td>FA Impressionism, Vol. 5, No. 1, 201 1963, I-C-T RMC</td>
<td></td>
</tr>
<tr>
<td>Audio-Visual:</td>
<td></td>
</tr>
<tr>
<td>&quot;Seeing Trees and Clouds,&quot; Series</td>
<td></td>
</tr>
<tr>
<td>of 4 filmstrips, BFA Educational</td>
<td></td>
</tr>
<tr>
<td>Media, 2211 Michigan Ave., Santa</td>
<td></td>
</tr>
<tr>
<td>Monica, Calif. 90404</td>
<td></td>
</tr>
<tr>
<td>Painting and Drawing with Expression, BFA</td>
<td></td>
</tr>
<tr>
<td>Impressionism, BFA</td>
<td></td>
</tr>
</tbody>
</table>
1. Energy from the sun, the basic source of all energy, converted through plant photosynthesis into a form all living things can use for life processes.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** The student will produce a print using linoleum. The print will be an abstract interpretation of the theme of sun energy or sun symbolism.

**Affective:** The student will perceive that the sun is the source of all energy and demonstrate this by symbolizing the sun.

**Skills to be Learned**
- Observation skills
- Library skills
- Skills in developing ideas
- Skill in printing techniques
- Neatness
- Self-evaluation
- Evaluation of other work
- Originality

**SUGGESTED LEARNING EXPERIENCE**

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

**A.** Begin this project with a question, "What does the sun mean to you?" List some of the things that the sun means to you. Discuss its meaning and symbolism and lead into the many ways that it has been symbolized in art throughout history.

**B.** Show movie, "Quetzalcoatl", and then discuss.

**C.** Show movie, "Sun's Energy". After discussion of the movie, compare the two. One is about the legend of the sun and the other is scientific.

**D.** Show slides of the sun and show its interpretations in art history and relate this to the project. Make drawings of some symbols that you find so they can be shared in class, possibly by being shown on an opaque projector or overhead.

(cont.)
SUGGESTED LEARNING EXPERIENCE

II. Outside Resource and Community Activities

A. Student-Centered in class activity

A. Begin this project with a question, "What does the sun mean to you?" List some of the things that the sun means to you. Discuss its meaning and symbolism and lead into the many ways that it has been symbolized in art throughout history.

B. Show movie, "Quetzalcoatl", and then discuss.

C. Show movie, "Sun's Energy". After discussion of the movie, compare the two. One is about the legend of the sun and the other is scientific.

D. Show slides of the sun and show its interpretations in art history and relate this to the project. Make drawings of some symbols that you find so they can be shared in class, possibly by being shown on an opaque projector or overhead.

(cont.)
Resource and Reference Materials

Publications:
- Perry, Raymond W. "Block Printing Craft", Peoria, Ill., The Manual Arts Press, 1938
- I-10 Th Energy Sources, (Student manual & teacher's guide)
  I-C-2 RMC

Audio-Visual:
- "Quetzalcoatl" 16 mm film. Aztec legend with artifacts animated to tell how the sun brought life to the people.
- "Sun's Energy", #6949 BAVI
- "Basic Reproduction Process in the Graphic Arts", BAVI

Community:

Continued and Additional Suggestions:

I. (cont.)
  E. Explain the project, demonstrate printing from beginning to end.
  F. Students work on prints.
  G. Critique project.
Continued and Additional Suggested Learning Experiences

I. (cont.)
  2. Explain the project, demonstrate linoleum block printing from beginning to end.
  F. Students work on prints.
  G. Critique project.
2. All living organisms interact among themselves and their environment, forming an intricate unit called an ecosystem.

### BEHAVIORAL OBJECTIVES

**Cognitive:** The student will prepare a collagraph print to illustrate the basic theme that man has altered the balance of nature.

**Affective:** The student will show an awareness of the ecosystem by creating a print that demonstrates man's important role in changing the balance of nature.

### SUGGESTED LEARNING

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

A. Begin the project with a problem for the student. Analyze the life cycle and the balance of nature. How has man affected the balance of nature? Comprise a list of things included in the balance of nature.

B. Make a list of some of the ways that man has altered the balance of nature - possibly using historical background, and especially in your own geographic location. Find photos of some of these things and take some of your own. Briefly discuss some of the research that was done, and begin the students' thinking of ideas for a print by explaining collagraph printing.

C. Demonstrate how to organize & prepare a plate for printing. Show inking & printing.

D. Show examples of collagraph printing.

E. Have students make a print.

F. Critique the finished project.
**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>
| A. Begin the project with a problem for the student. Analyze the life cycle and the balance of nature. How has man affected the balance of nature? Comprise a list of things included in the balance of nature.  
B. Make a list of some of the ways that man has altered the balance of nature - possibly using historical background, and especially in your own geographic location. Find photos of some of these things and take some of your own. Briefly discuss some of the research that was done, and begin the students' thinking of ideas for a print by explaining collagraph printing.  
C. Demonstrate how to organize & prepare a plate for printing. Show inking & printing.  
D. Show examples of collagraph printing.  
E. Have students make a print. Critique the finished project. |
**Resource and Reference Materials**

**Publications:**

**Audio-Visual:**
- Conservation & The Balance of Nature
- BAVI

**Community:**
- Local site visits
- Contact Historical Society
Continued and Additional Suggested Learning Experiences
C 4. An adequate supply of pure water is essential for life.

BEHAVIORAL OBJECTIVES

Cognitive: After observation of wildlife in and about a freshwater source, child makes collage demonstrating his understanding of life on an adequate supply of pure water.

Affective: Student will show an awareness of the collage as an art form and will develop an attitude toward an observed situation.

Skills to be Learned
- Composition of a collage
- Research skills
- Skills of observation

SUGGESTED LEARNING ACTIVITIES

1. Student-Centered in class activity
   A. The class will clip out of magazines pictures relating to nature and the importance of water.
   B. Each student will compose a collage about some animal or bird that was seen utilizing the water source. Effects of the adequate supply of pure water should be clearly communicated.
<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
</table>
| Observed life in and water source, collage demonstration of adequate supply. Student willness of the art form and an attitude toward situation. Learned of a collage observation. | I. Student-Centered in class activity  
A. The class will clip out of magazines pictures relating to nature and the importance of water.  
B. Each student will compose a collage about some animal or bird that was seen utilizing the water source. Effects of the adequate supply of pure water should be clearly communicated.  
II. Outside Resource and Community Activities  
A. A field trip to the local wildlife refuge may be arranged.  
B. Make sketches of the birds and animals observed around the water source. |
<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>Contemporary Colleges by Murray</td>
<td></td>
</tr>
<tr>
<td>Zucker, Interiors, 129:72, May, 1970</td>
<td></td>
</tr>
<tr>
<td>&quot;Conserving Our Waters &amp; Cleaning the Air&quot;, teacher guide and student manual, I-C-E.RMC</td>
<td></td>
</tr>
</tbody>
</table>

**Audio-Visual:**

**Community:**
<table>
<thead>
<tr>
<th>Materials</th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Murray, May, 1970</td>
<td>Cleaning and student</td>
</tr>
</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**

<table>
<thead>
<tr>
<th>Cognitive: The student will collect natural materials and translate them to use as the pigment in a mono print.</th>
<th>SUGGESTED LEARNING EXPERIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The project will begin with an explanation of mono printing and how natural materials are going to be used in this print. Give examples to use.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td>1. Weeds</td>
<td></td>
</tr>
<tr>
<td>2. Vegetables, etc.</td>
<td>A. The student will appreciate the fact, and understand that various art pigments can be derived from many natural resources and that all pigments are the product of natural resources.</td>
</tr>
<tr>
<td>B. The teacher will demonstrate how to produce color from a few natural materials and will demonstrate printing techniques.</td>
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</tr>
<tr>
<td>C. The student will produce colors and make a print.</td>
<td></td>
</tr>
<tr>
<td>D. The student will comprise a list of materials used and will share his knowledge with the class.</td>
<td></td>
</tr>
<tr>
<td>E. Critique projects.</td>
<td></td>
</tr>
</tbody>
</table>

| Affective: The student will appreciate the fact, and understand that various art pigments can be derived from many natural resources and that all pigments are the product of natural resources. |

**Skills to be Learned**

<table>
<thead>
<tr>
<th>Observational skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library skills</td>
</tr>
<tr>
<td>Skill in developing ideas</td>
</tr>
<tr>
<td>Originality</td>
</tr>
<tr>
<td>Printing techniques</td>
</tr>
<tr>
<td>Neatness</td>
</tr>
<tr>
<td>Self-evaluation</td>
</tr>
<tr>
<td>Evaluation of other work</td>
</tr>
</tbody>
</table>
OBJECTIVES

The student will understand that all natural resources are not equally distributed over the earth or over time, thereby greatly affecting the geographic distribution and quality of life.

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. The project will begin with an explanation of mono printing and how natural materials are going to be used in this print. Give examples to use.
   1. Weeds
   2. Vegetables, etc.

B. The teacher will demonstrate how to produce color from a few natural materials and will demonstrate printing techniques.

C. The student will produce colors and make a print.

D. The student will comprise a list of materials used and will share his knowledge with the class.

E. Critique projects.

II. Outside Resource and Community Activity

A. The student will do research on color pigments and where they come from and how they are produced.

B. Direct the student to begin exploring for materials outside of class.
### Resource and Reference Materials

<table>
<thead>
<tr>
<th>Publications</th>
<th>Continued and Additional Suggestions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form, Space and Vision, Graham Collier,</td>
<td></td>
</tr>
<tr>
<td>Printmaking Today, Heller, Jules, N.Y.,</td>
<td></td>
</tr>
<tr>
<td>Holt, Rinehart &amp; Winston (section on mono printing)</td>
<td></td>
</tr>
<tr>
<td>The Artists Handbook of Materials and Techniques,</td>
<td></td>
</tr>
<tr>
<td>Ralph Mayer, 3rd ed., Viking Press</td>
<td></td>
</tr>
</tbody>
</table>

### Audio-Visual:

- Community:
  - Library research
Continued and Additional Suggested Learning Experiences

Collier, Cliffs, N.Y., on on ls and
5. 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 produce a composition using texture rubbings from man made and natural objects, with the idea of using as many different resources as possible to gain a finished composition. |
| Affective: The student will show an awareness of the variety of textures in his environment by listing all of the resources that he used in his composition. |

**Skills to be Learned**

- Observational skills
- Skill in organization of composition
- Neatness
- Skill in selection of resources.

**SUGGESTED LEARN**

I. Student-Centered in class activity
   - Begin with question
     - A. What is texture? Where is it found?
     - Discuss this briefly & start the students looking around, by finding and listing some of the various textures, just in the classroom alone. Expand this to cover the school building.

B. Explain the project, using pencil, charcoal, chalk, etc. Do texture rubbings of interesting textural surfaces man made and natural.

C. Demonstrate the project and explain that it will be basically an outdoor project.

D. Create a composition by selecting interesting man made & natural textures.
I. Student-Centered in class activity
A. Begin with question
What is texture?
Where is it found?
Discuss this briefly & start the students looking around, by finding and listing some of the various textures, just in the classroom alone.
Expand this to cover the school building.
B. Explain the project, using pencil, charcoal, chalk, etc. Do texture rubbings of interesting textural surfaces man made and natural.
C. Demonstrate the project and explain that it will be basically an outdoor project.
D. Create a composition by selecting interesting man made & natural textures.

II. Outside Resource and Community Activities
A. Have students look for texture around the school building.
B. Take a field trip or excursion outdoors to search for different textures to use in texture rubbing composition.
Resource and Reference Materials

Publications:
"Rubbings of Maya Sculpture",
Arts, 42:53, Nov. '67

Audio-Visual:
Kit #16 - Environmental Awareness; I-C-E RNC
"Discovering Texture",
B.F.A. Educational Media
2211 Michigan Ave.
Santa Monica, Calif. 90404
"What is Texture?" B.F.A.
"Texture Techniques", B.F.A.

Community:
Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

### BEHAVIORAL OBJECTIVES

<table>
<thead>
<tr>
<th>Cognitive: Students will demonstrate by weaving a sampler of their own design an awareness of the cultural value this art achieves.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective: Students will show an awareness of the cultural, economic and social factors of the art of weaving through their completed work.</td>
</tr>
</tbody>
</table>

### Skills to be Learned

- Building & dressing a simple loom
- Learning the vocabulary of weaving
- Weaving techniques

### SUGGESTED LEARNER ACTIVITIES

1. Student-Centered in class activity
   - A. Students decide on the type of weaving to be done.
   - B. String the loom.
   - C. Complete the project and take it off the loom.

### Problem Orientation

We suggest: Students will demonstrate by weaving a sampler of their own design an awareness of the cultural value this art achieves.

Affective: Students will show an awareness of the cultural, economic and social factors of the art of weaving through their completed work.
<table>
<thead>
<tr>
<th>OBJECTIVES</th>
<th>SUGGESTED LEARNING EXPERIENCES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students will weaving a your own ness of value this</td>
<td>II. Outside Resource and Community Activities</td>
</tr>
<tr>
<td>Students will ness of the e conmic an d of the through work.</td>
<td>A. Field trip to museum.</td>
</tr>
<tr>
<td>Students will ness of the e conmic and of the through work.</td>
<td>B. Ask for display materials to be assembled and discussed.</td>
</tr>
<tr>
<td>Students will ness of the e conmic and of the through work.</td>
<td>C. Contact a local weaver for a demonstration or lecture.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Art</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject</td>
<td>Weaving</td>
</tr>
<tr>
<td>Problem Orientation</td>
<td>Cultural Values</td>
</tr>
<tr>
<td>Grade</td>
<td>9-12</td>
</tr>
</tbody>
</table>
Resource and Reference Materials

Publications:
- "Weaving", Reinhold
- "Hand Weaving & Craftsman" magazine

Audio-Visual:
- "How to make a simple loom & weave"
  Encyclopedia Britannica Educational Corp.
  425 N. Michigan
  Chicago, Ill. 60611

Community:
- Mrs. Karen Hagemeister
  % UWGB
Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

**Cognitive**: Student will prepare a photograph using machine forms and natural objects to illustrate an underlying theme of mechanical domination over nature.

**Affective**: The student will show awareness of the machine and its dominance over nature by relating his print to this theme.

**Skills to be Learned**
- Observation
- Library skills
- Originality
- Developing ideas
- Neatness
- Imprinting techniques
- Self-evaluation
- Evaluation of other work

**SUGGESTED LEARNING ACTIVITY**

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

A. Initial experience - individual fieldtrips.
   1. Junk yards
   2. Dumps
   3. Factories
   4. Transportation
      a. Areas of heavy traffic
      b. Railroads
      c. Freeways
      d. Airports

B. Individual fieldtrips to nature areas.
   1. Forest & untouched areas
   2. State & county parks
   3. Wildlife refuge
   4. In class movies on national parks & forests

C. Instruct students to take pictures or sketch interesting objects and scenes to share.

D. Students will collect objects for print.
   1. Machine forms - gaskets, nuts, bolts, washers, etc.
Subject: Graphic Printing  
Problem Orientation: Mechanical Domination  
Grade: 9-12

I. Student-Centered in class activity
   A. Initial experience - individual fieldtrips.
      1. Junk yards
      2. Dumps
      3. Factories
      4. Transportation
         a. Areas of heavy traffic
         b. Railroads
         c. Freeways
         d. Airports
   B. Individual fieldtrips to nature areas.
      1. Forest & untouched areas
      2. State & county parks
      3. Wildlife refuge
      4. In class movies on national parks & forests
   C. Instruct students to take pictures or sketch interesting objects and scenes to share.
   D. Students will collect objects for print.
      1. Machine forms - gaskets, nuts, bolts, washers, etc.

II. Outside Resource and Community Activities
   A. Explain the project more fully as far as the general theme is concerned. Try to get them to relate to what they have seen and felt on both excursions and to express it in a print.
      1. Exhibit sketches and photographs, and exchange ideas in a group discussion.
   B. Show movies on pollution and conservation to further implant the idea in their minds of technological dominance of nature.
## Resource and Reference Materials

**Publications:**
- "God's Own Junkyard", Peter Blake, Holt, Rinehart & Winston, N.Y. 1964
- VF "Give Earth A Chance Series", I-C-E RMC
- 100 Wa Man & His Environment Interaction & Interdependence, I-C-E RMC
- 120 O Our Man-Made Environment, I-C-E RMC
- 150 La The Diligent Destroyers, I-C-E RMC
- Zaidenberg, Arthur; Prints & How to Make Them, N.Y. Harper & Row 1964

**Audio-Visual:**
- 16 mm Film - All available from BAVI:
  - "National Parks: Our American Heritage"
  - "Apostle Islands Region"
  - "Glacier Park Studies"
  - "Pollution is a Matter of Choice"
  - "Conserving Our Wildlife Today"
  - "Conservation & the Balance of Nature"
  - "Conservation to Save Our Environment"

## Continued and Additional Suggested Materials

### I. (cont.)
- 2. Natural forms - weeds, flowers, leaves, bones, insects, etc.
- E. Demonstrate printing.
- F. Student printing.
- G. Class critique.

### Community:

- Recommendations for community involvement.
Continued and Additional Suggested Learning Experiences

I. (cont.)

2. Natural forms - weeds, flowers, sticks, pebbles, leaves, bones, insects, etc.

E. Demonstrate printing.
F. Student printing.
G. Class critique.
8. Cultural, economic, social and political factors determine the status of man's values and attitudes toward his environment.

**BEHAVIORAL OBJECTIVES**

**Cognitive:** Students will use machine forms and natural objects, cast in plaster of paris, & know the techniques of making a vacuum form print, with an underlying theme of mechanical domination over nature.

**Affective:** The students will demonstrate an awareness of the machine and its dominance over nature by relating his print to this theme.

**Skills to be Learned**
- Observation
- Developing ideas
- Originality
- Vacuum forming
- Neatness
- Self-evaluation
- Evaluation of other work.

**SUGGESTED LEARNING OBJECTIVES**

I. Student-Centered in class activity

A. Project will begin with individual student field-trips after brief instructions of some of the things to be aware of (machine & natural objects).

B. Have students collect natural and man-made objects. Have them show the objects they have collected and prompt them to relate their feelings to the class and in a vacuum form composition.

C. The student will produce a vacuum form composition in the following way:
   1. Place machine forms and plaster casts of natural objects on bed of vacuum form machine.
   2. Follow set procedure for forming.
   3. Possibly add magnetic lettering to produce ecology poster or to reinforce the basic idea.
   4. Critique finished vacuum form.
economic, social and
Discipline Area Art
Factors determine Subject Graphics
Student's values and Problem Orientation Mechanical Domination
and his environment.
Grade 9-12

OBJECTIVES

I. Student-Centered in class activity
   A. Project will begin with individual student field-trips after brief instructions of some of the things to be aware of (machine & natural objects).
   B. Have students collect natural and man-made objects. Have them show the objects they have collected and prompt them to relate their feelings to the class and in a vacuum form composition.
   C. The student will produce a vacuum form composition in the following way:
      1. Place machine forms and plaster casts of natural objects on bed of vacuum form machine.
      2. Follow set procedure for forming.
      3. Possibly add magnetic lettering to produce ecology poster or to reinforce the basic idea.
      4. Critique finished vacuum form.

II. Outside Resource and Community Activities
   A. Initial experience - individual fieldtrips for purposes of collection and observation.
      1. Junk yards
      2. Dumps
      3. Factories
      4. Service stations and garages
   B. Second experience - individual fieldtrip to natural areas for purposes of collection & observation.
      1. Forests, fields, basically untouched areas
      2. State, county & local parks
      3. Wildlife refuges
   C. The student will collect objects for a vacuum form that are man-made.
      1. Machine forms, bolts, gaskets, nuts, etc.
      2. Natural forms, weeds (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></td>
</tr>
<tr>
<td>&quot;Weber Vacuum Form Machines&quot;</td>
<td></td>
</tr>
<tr>
<td>John Weber Vacuum Form Co.</td>
<td></td>
</tr>
<tr>
<td>Lincoln Illinois 62656</td>
<td></td>
</tr>
<tr>
<td>Write Ron Stokes, Head Art Dept.</td>
<td></td>
</tr>
<tr>
<td>Manitowoc Public Schools</td>
<td></td>
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<tr>
<td>Manitowoc, Wis.</td>
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<tr>
<td>&quot;God's Own Junkyard&quot;, 1964</td>
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<tr>
<td>Holt Rinehart &amp; Winston Co., N.Y.</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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</table>

**Community:**
- Junk yards
- Dumps
- Factories
- Service stations & garages
- Forests, fields, parks
Continued and Additional Suggested Learning Experiences

II. (cont.)

flowers, sticks, pebbles, leaves, bones, insects, etc. from which plaster casts can be made.
9. Man has the ability to manage, manipulate, and change his environment.

**BEHAVIORAL OBJECTIVES**

Cognitive: The student will apply reduction woodcut principles in a print with this basic theme: Man's misuse of his land.

Affective: The student accepts responsibility for the use of his land and environment by the basic ideas he portrays in this project.

Skills to be Learned
- Observational skills
- Skill in printing technique
- Neatness
- Self-evaluation
- Library skills
- Skill in developing ideas
- Skill in sketching

**SUGGESTED LEARNING EXPERIENCES**

I. Student-Centered in class activity

A. Begin this project with a problem for the student. Have them list all of the ways that they can think of in which man misuses the land he lives on. Have them sight local examples.

B. Have the students bring their research to class for discussion and sharing of ideas. Discuss possible locations for field trips to view misuse of land or instruct them to do this individually.

C. Encourage the students to react to the things they saw by producing a reduction woodcut with the theme of man's misuse of his land. The student's reactions could be further stimulated by showing movies or filmstrips on pollution or land use and misuse.

D. Lecture on printing and demonstrate the technique of printing.

(cont.)
SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Begin this project with a problem for the student. Have them list all of the ways that they can think of in which man misuses the land he lives on. Have them sight local examples.
   B. Have the students bring their research to class for discussion and sharing of ideas. Discuss possible locations for field trips to view misuse of land or instruct them to do this individually.
   C. Encourage the students to react to the things they saw by producing a reduction woodcut with the theme of man's misuse of his land. The student's reactions could be further stimulated by showing movies or filmstrips on pollution or land use and misuse.
   D. Lecture on printing and demonstrate the technique of printing.

II. Outside Resource and Community Activities
   A. Student must prepare a list of the ways that man misuses the land especially locally.
   B. Collect or take photographs of such places or events.
   C. Take a field trip to places where land is misused--dumps, junkyards, open pits, etc. either as a group or individually. Try to do this locally.
   D. Exhibition of prints in school display areas and possibly locally at various business establishments.
Resource and Reference Materials

Publications:

170 "Conserving Our Waters & Cleaning Pe the Air," I-C-E RMC
"Art in Woodcut," BFA Educational Media
2211 Michigan Ave.
Santa Monica, Cal. 90404

Continued and Additional Suggestions

II. (cont.)
E. Critique the projects interpretations to assist N.Y.
Continued and Additional Suggested Learning Experiences

II. (cont.)

E. Critique the projects and compare the personal interpretations to actual things that were seen.
C. **Behavioral Objectives**

**Cognitive:** The student will discuss environmental problems and will then choose an area that he believes needs changing. He will create a silk screen poster and sweatshirt to be used as a vehicle for change.

**Affective:** The student will appreciate the fact that it is everyone's duty to help manage and change his environment by any means necessary.

**Skills to be Learned**

- Observational skills
- Library skills
- Skill in developing ideas
- Skill in printing technique
- Neatness
- Originality
- Self-Evaluation
- Evaluation of other work

**Suggested Learning Activity**

A. Begin this project with an assignment for the student. Have them brainstorm and write down all of the environmental problems that they can think of for purposes of class discussion.

B. Discuss these problems and classify them into major problem areas or environmental concepts.

C. Explain the project, and have the student choose an area to cover. Have them brainstorm and classify these problems or concepts into major problem areas or environmental concepts.

D. Briefly cover posters in art history. Show slides, movies, filmstrips.

E. Lecture on silk screen printing, show films, demonstrate technique.

F. Have them print posters on tag board and then on sweatshirts or T-shirts.

G. Class critique and select locations for posters.

II. **Student-Centered in Class Activity**

- Library skills
- Skills in developing ideas
- Printing technique
- Neatness

**Evaluation Other Work:**

- Originality
- Self-Evaluation
- Evaluation of other work

**Discipline Area:** Art

**Subject:** Graphic Design

**Problem Orientation:** Environment

C. 9. Man has the ability to manage, manipulate, and change his environment.
manage, Discipline Area Art

Subject Graphics (silk screen) Environmental
Problem Orientation Change Grade 9-12

SUGGESTED LEARNING EXPERIENCES

Student-Centered in class activity

A. Begin this project with an assignment for the student. Have them brainstorm and write down all of the environmental problems that they can think of for purposes of class discussion.

B. Discuss these problems and classify them into major problem areas or environmental concepts.

C. Explain the project, and have the student choose an area to cover.

D. Briefly cover posters in art history. Show slides, movies, filmstrips.

E. Lecture on silk screen printing, show films, demonstrate technique.

F. Have them print posters on tag board and then on sweatshirts or T-shirts.

G. Class critique and select locations for posters.

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

<table>
<thead>
<tr>
<th>Publications:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silk Screen Printing, Slenberg, Harry, N.Y., McGraw, 1942</td>
</tr>
<tr>
<td>Graphics, periodical on posters</td>
</tr>
</tbody>
</table>

### Audio-Visual:

<table>
<thead>
<tr>
<th>16 mm. movies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Methods of Screen Process Printing</td>
</tr>
<tr>
<td>BAVI</td>
</tr>
<tr>
<td>Environmental Pollution...Our World in Crisis, Project I-C-E, RMC</td>
</tr>
<tr>
<td>Silk Screen Series, (set of 6 super 8 filmloops) BFA Educational Media, 2211 Michigan Ave., Santa Monica, Calif.</td>
</tr>
<tr>
<td>Screen Process Printing, (series of 4 filmstrips) International Film Bureau, Inc., 332 S. Michigan Ave., Chicago, Ill</td>
</tr>
<tr>
<td>Environment: What Can be Done, Life Educational Materials Center</td>
</tr>
</tbody>
</table>

### Community:

<table>
<thead>
<tr>
<th>Library</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual field trips</td>
</tr>
<tr>
<td>People in the community view posters and sweatshirts</td>
</tr>
</tbody>
</table>
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 student will make an ecology button which epitomizes his individual emotions and concerns for change after researching environmental problems.

**Affective:** The student will assume responsibility to protect his as well as all other men's rights where environmental problems are concerned.

**Skills to be Learned**
- Observational skills
- Skill in linoleum block printing
- Compositional skill
- Skill in developing good, creative and original ideas
- Neatness
- Good work habits
- Self evaluation

**SUGGESTED LEARNING EXPERIENCES**

I. Student-Centered in class activity

A. The students will begin this project by collecting photographs and setting up a bulletin board display of pollution problems in our environment.

B. The student will respond to these problems and will make an effort to change them through his own creative art work.

C. The student will design a propaganda button to be worn, the purpose being: To instill the idea of change upon the people around him and he will try to make people aware of their responsibility to other people, especially in their own local area when it comes to changing environmental problems.

D. This project could possibly be integrated with an English assignment in slogan writing.

(cont.)
SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in Class Activity

The students will begin this project by collecting photographs and setting up a bulletin board display of pollution problems in our environment. The student will respond to these problems and will make an effort to change them through his own creative art work. The student will design a propaganda button to be worn, the purpose being: To instill the idea of change upon the people around him and he will try to make people aware of their responsibility to other people, especially in their own local area when it comes to changing environmental problems. This project could possibly be integrated with an English assignment in slogan writing.

(continuation)
### Resource and Reference Materials

<table>
<thead>
<tr>
<th>Continued and Additional Publications:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Block Printing Craft, Petty, Raymond W., Peoria, Ill., The Manual Arts Press, 1938</td>
</tr>
<tr>
<td>OF Give Earth a Chance Series, I-C-E, RMC</td>
</tr>
<tr>
<td>150 The Diligent Destroyers, I-C-E, LA RMC</td>
</tr>
</tbody>
</table>

### Audio-Visual:

- Basic Reproduction Process in the Graphic Arts, BAVI
- Pollution is a Matter of Choice, BAVI
- Conservation To Save Our Environment, BAVI
- Conservation and the Balance of Nature, BAVI
- Conserving Our Wildlife Today, BAVI

### E. Lecture on printing printing.
I. (cont.)

E. Lecture on printing and demonstrate technique of printing.
1. Energy from the sun

- The basic source of all energy, i.e., converted through plant photosynthesis into a form all living things can use for life processes.

**BEHAVIORAL OBJECTIVES**

Cognitive: The students will be able to:

- Form all living things can use for life processes.
- Trace plant photosynthesis into a form all living things can use for life processes.
- Describe the basic energy from the sun.

Affective: The student will be able to:

- Accept to identify aesthetic characteristics of photographs as they learn to critically evaluate their sets of photos.
- Establishing aesthetic terms in terms of subject development (i.e., change of subject).
- Selection of subject in aesthetic terms.

Skills to be learned:

- Proper spacing in terms of subject development (i.e., change of subject).
- Selection of subject in aesthetic terms.

I. Student Centered Activity

A. Teacher demonstration of some A.V. means (photos, etc.).

B. Discussion of problems above.

C. Through small groups, students demonstrate understanding of subject through small photo sets.

D. Follow up photo critiques that relate to make value judgments.

[The rest of the text is not clearly visible due to the image quality.]

To make value judgments that reflect over school year.

1. Effect of sun
2. Photo record of change in plant growth.

I. Student record of change in plant growth.

Subject development

I. Subject record of change in plant growth.

[The rest of the text is not clearly visible due to the image quality.]
the basic discipline area: Art

can be converted to a subject: Photography

thesis into a problem orientation: Effects of Sun. Grade 9-12

can be used for life processes.

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Teacher demonstrates time lapse photography through some A.V. means (films, photos, etc.).
   B. Discussion of material used above. Problems and techniques that will be involved.
   C. Through small group discussion and individually developed lists, students develop ideas for possible subjects that demonstrate sun energy within an aesthetically conceived image.
      (Possible Directions)
      1. Student records plant development through evenly spaced photos over a period of time.
      2. Recording of plant reactions to differing light conditions.
      3. Recording of changes in tree over school year.
      4. Effect of sun on activities of man for a day, week, month.
   D. Follow up photo series with critiques that require students to make value judgments (cont.)

II. Outside Resource and Community Activities
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Information</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td><strong>I. (cont.)</strong></td>
</tr>
<tr>
<td>110 Th Energy Sources, (Student Manual &amp; Teacher's Guide)</td>
<td>concerning which environmental considerations.</td>
</tr>
<tr>
<td>I-C-E RMC</td>
<td>1. Can the two i</td>
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<tr>
<td>110 Ph Photography for Kids,</td>
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<tr>
<td>I-C-E RMC</td>
<td></td>
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<tr>
<td>Photography: A Key to Learning,</td>
<td></td>
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<tr>
<td>A.V. Inst. 14:26-7, N '69</td>
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</tbody>
</table>

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<thead>
<tr>
<th>Audio-Visual:</th>
<th></th>
</tr>
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<tbody>
<tr>
<td>Walt Disney film catalogue</td>
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<td>for films on various plant</td>
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<td>reactions, I-C-E RMC</td>
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<tr>
<th>Community:</th>
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<tbody>
<tr>
<td>Local camera suppliers</td>
<td></td>
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<tr>
<td>Professional photographer</td>
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</tr>
</tbody>
</table>
Continued and Additional Suggested Learning Experiences (cont.)

concerning which photos best demonstrate environmental concepts against aesthetic considerations.

1. Can the two ideas be brought together? How?
3. 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>
</table>
| **Cognitive:** Through a photographic essay & discussion, the student will distinguish between past design and carrying capacity and present design and carrying capacity. | I. Student-Centered in class activity  
A. Through class discussion, develop lists of buildings and/or structures ie. bridges, cobblestone streets, patterned sidewalks, fountains that represent the past in the local area.  
B. Discuss what it is about these structures that make them unique from more modern counterparts. Follow this discussion with onsite inspection of as many as possible to verify the points brought up in class.  
C. A visit to a local museum at this time might serve to enlarge the students' view of the local area as it existed in the past.  
D. Students collect old photos of local areas, such as downtown areas--take new photographs of areas from same angles (as near as possible) as indicated by old photos. Visually compare changes (in carrying capacity.) (Cont.) |
| **Affective:** The student attempts to identify direct relationship between past & present design to carrying capacity. |
| **Skills to be Learned**  
Choosing camera angles and compositions that will supply either the greatest amount of information or supply the necessary information in the best manner possible.  
Observational skills  
Photographic techniques |
SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
A. Through class discussion, develop lists of buildings and/or structures e.g., bridges, cobblestone streets, patterned sidewalks, fountains that represent the past in the local area.
B. Discuss what it is about these structures that make them unique from more modern counterparts. Follow this discussion with onsite inspection of as many as possible verify the points brought up in class.
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D. Students collect old photos of local areas, such as downtown areas--take new photographs of areas from same angles (as near as possible) as--indicated by old photos. Visually compare changes (in carrying capacity.) (Cont.)

II. Outside Resource and Community Activities
A. Local library or newspaper, family photo albums for old photos.
Resource and Reference Materials

Publications:
Young Photographers, Camera 48; 5-28, 30-4, August, 1969.


Audio-Visual:
Architecture and Urban Planning,
Art and the Environment, Milwaukee Art Center.
Films from BAVI:
Art of Seeing, No. 5733
Eye of an Artist, No. 1783
Photographer, No. 1671
Photography for Everyone, No. 2354

Community:
historical sites
museums

Continued and Additional Suggestions (Cont.)

I. (Cont.)
E. Discuss how change in design decreased the carrying capacity of the photos?

F. Discuss: Is there information in the photos because of the angles and the photos?

G. Follow up by rephotographing angles. (Back and side views, elevated or aerial views.)

Sources That supply the design (Is design carried through controlling function or design?) Are doors, windows greater or lesser advantage of these tasks?
<table>
<thead>
<tr>
<th></th>
<th>Continued and Additional Suggested Learning Experiences</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. (Cont.)</td>
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<td></td>
<td>E. Discuss how change in design has increased or</td>
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<td></td>
<td>decreased the carrying capacity.</td>
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<tr>
<td></td>
<td>F. Discuss: Is there information not revealed</td>
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<td>because of the angles and/or composition of</td>
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<td></td>
<td>the photos?</td>
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<td></td>
<td>G. Follow up by rephotographing area from other</td>
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<tr>
<td></td>
<td>angles. (Back and side views of structures,</td>
</tr>
<tr>
<td></td>
<td>elevated or aerial views, interior vs. exterior).</td>
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<tr>
<td></td>
<td>Sources That supply additional information.</td>
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<tr>
<td></td>
<td>(Is design carried through? Is design</td>
</tr>
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<td></td>
<td>controlling function or has function dictated</td>
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<tr>
<td></td>
<td>design?) Are doors, windows, etc. placed to</td>
</tr>
<tr>
<td></td>
<td>greater or lesser advantage?</td>
</tr>
</tbody>
</table>
4. An adequate supply of pure water is essential for life.

**Behavioral Objectives**

<table>
<thead>
<tr>
<th>Cognitive</th>
<th>The student illustrates through a photo essay that an adequate supply of pure water is essential for life.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affective</td>
<td>Desires to develop in other people a more conscious attitude toward the necessity of water to sustain life.</td>
</tr>
</tbody>
</table>

**Skills to be Learned**

Students learn darkroom procedures and importance of quality control

**Suggested Learning Activity**

I. Student-Centered in class activity

A. Teacher initiates student discussion of water purity by presenting examples of various waters found locally: ie. spring, and distilled water bought in local store, tap water, rain/snow water, lake and/or river water, swamp water.

Suggested discussion questions:

1. How do these waters vary in quality?
2. Are some more or less desirable for use in photography?

B. Instructor may suggest students research these questions. Other possible research questions:

1. What types of waters are required in chemical formulations in photography?
2. What role does water play in photography?
3. How would foreign material that may be present in water affect the results of your images? (Cont.)
Problem Orientation Water Supply  Grade 9-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Teacher initiates student discussion of water purity by presenting examples of various waters found locally: ie. spring, and distilled water bought in local store, tap water, rain/snow water, lake and/or river water, swamp water.

Suggested discussion questions:
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3. How would foreign material that may be present in water affect the results of your images? (Cont.)
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</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td>I. (Cont.)</td>
</tr>
<tr>
<td>- Photography for Kids, I-C-E RMC</td>
<td></td>
</tr>
<tr>
<td>- Conserving Our Waters &amp; Cleaning the Air, teacher guide and student manual, I-C-E RMC</td>
<td>C. Follow-up</td>
</tr>
<tr>
<td>- Audio-Visual:</td>
<td>Understanding the importance</td>
</tr>
<tr>
<td>- Photography for Everyone, BAVI</td>
<td>of darkroom procedure</td>
</tr>
<tr>
<td>- Community:</td>
<td>point for water quality, an essay of pure water as a r</td>
</tr>
<tr>
<td>- local camera suppliers</td>
<td>survival.</td>
</tr>
</tbody>
</table>
I. (Cont.)

C. Follow-up

Understanding the importance of good water in terms of darkroom procedure may provide a kickoff point for water quality, a subject of a photo essay of pure water as a requirement for man's survival.
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.

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
<th>SUGGESTED LEARNING</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive:</strong> Through the project, the student will illustrate the implications of varying atmospheric conditions on subject matter.</td>
<td>I. Student-Centered in class activity</td>
</tr>
<tr>
<td><strong>Affective:</strong> Acquaint self with the effect of atmospheric conditions on subject matter.</td>
<td>A. Art instructor or outside resource person such as science teacher, or local meteorologist, etc. leads student group in discussion of atmospheric conditions.</td>
</tr>
<tr>
<td><strong>Skills to be Learned</strong></td>
<td>B. Art instructor, with AV materials illustrates atmospheric conditions as subject in art examples found in impressionism, expressionism, surrealism.</td>
</tr>
<tr>
<td>Use of equipment under varying conditions of light (Use of light meter)</td>
<td>C. Small groups explore answers to such questions as:</td>
</tr>
<tr>
<td>Selection of film in terms of speed</td>
<td>1. What sort of subjects are affected by the atmosphere?</td>
</tr>
<tr>
<td>Relationship of film speed, shutter speed, and aperture to each other.</td>
<td>2. What are unique conditions of local area that need to be considered?</td>
</tr>
<tr>
<td></td>
<td>D. Students choose subjects to photograph under as many varying conditions as possible, i.e. sunrise, sunset, mid-day, rain, fog, smog, etc. (subjects could be as varied as plant life, buildings, human activities.</td>
</tr>
</tbody>
</table>
Clean air is essential for health. It is clean air that allows us to breathe and see clearly. Photosynthesis depends on clean air for food.

**Problem Orientation: Clean Air**

**Grade: 9-12**

**Suggested Learning Experiences**

### I. Student-Centered in Class Activity

- **A.** Art instructor or outside resource person such as a science teacher, or local meteorologist, etc. leads student group in discussion of atmospheric conditions.

- **B.** Art instructor, with AV materials illustrates atmospheric conditions as subject in art examples found in impressionism, expressionism, surrealism.

- **C.** Small groups explore answers to such questions as:
  1. What sort of subjects are affected by the atmosphere?
  2. What are unique conditions of local area that need to be considered?

- **D.** Students choose subjects to photograph under as many varying conditions as possible, i.e., sunrise, sunset, mid-day, rain, fog, smog, etc. (Subjects could be as varied as plant life, buildings, human activities.)

### 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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</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td>I. (Cont.)</td>
</tr>
<tr>
<td>Photography for Kids, I-C-E RMC</td>
<td>E. Compare results with the</td>
</tr>
<tr>
<td>Conserving Our Waters and Cleaning</td>
<td>results obtained from other</td>
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<tr>
<td>the Air, teacher guide and</td>
<td>sources of subject affected by</td>
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<tr>
<td>student manual, I-C-E RMC</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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<tr>
<td>&quot;Modern Art - Renoir&quot;,</td>
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<tr>
<td>FS 21, I-C-E RMC</td>
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<tr>
<td><strong>Community:</strong></td>
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</tbody>
</table>
Continued and Additional Suggested Learning Experiences

I. (Cont.)

E. Compare results with those of impressionist painters and/or other works. How are moods of subject affected by varying conditions?
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 EXPERIENCE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cognitive</strong>: Student applies a natural design in planning a decoration in his own choice of media.</td>
<td><strong>I. Student-Centered in class activity</strong></td>
</tr>
<tr>
<td><strong>Affective</strong>: Student shows an awareness of abstract possibilities to be found in his environment.</td>
<td><strong>II. Application in real-life situations</strong></td>
</tr>
</tbody>
</table>

**Skills to be Learned**
1. Development of criteria for locating good design in nature.
2. Organizing & relating
3. Observational skills

- Using small group or round table discussion groups develop a list of natural resources that are found locally.
- A field trip into school yard and/or surrounding area before and during the development of lists and viewing of filmstrips that demonstrate design in nature to expand the student ideas.
- Working from this list, have students photograph them in such a way as to emphasize any natural element of design i.e., patterns in leaves, grains, bark, ore deposits, fossils.
- Discuss how these designs differ from those in resources not found naturally in local area. Use photos as basis for (Con't)
SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Using small group or round table discussion groups develop a list of natural resources that are found locally.
   B. A field trip into school yard and/or surrounding area before and during the development of lists and viewing of filmstrips that demonstrate design in nature to expand the student ideas.
   C. Working from this list, have students photograph them in such a way as to emphasize any natural element of design, e.g., patterns in leaves, grains, bark, ore deposits, fossils.
   D. Discuss how these designs differ from those in resources not found naturally in local area. Use photos as basis for (Con't)
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</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
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<tr>
<td>Design in Nature, Vivian Guyler</td>
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<td>Camera 48: 6-17 N'69</td>
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<tr>
<td>Exploring Visual Order with Photography, Architecture</td>
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<td>Canada 46; 21 D'69</td>
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<tr>
<td>Photography for Kids I-C-E</td>
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<td>RMC</td>
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<tr>
<td><strong>Audio-Visual:</strong></td>
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<tr>
<td>Flowers and Bees A Springtime Story, 11 min. BAVI 7476</td>
<td></td>
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<tr>
<td>Rainshower, 15 min. 576 BAVI</td>
<td></td>
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<tr>
<td>Searching Eye, 18 min 7535 BAVI</td>
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</tr>
</tbody>
</table>

| Community:                                                |                                      |
| Biology room                                             |                                      |
| Museum displays                                          |                                      |
| Woods, swamps                                             |                                      |
| Stone quarry                                             |                                      |
8. Cultural, economic, social, and political factors determine status of man's values and attitudes toward his environment.

BEHAVIORAL OBJECTIVES

Cognitive: The student will predict the consequences of cultural, economic, social and political factors on the environment.

Affective: The student will acquaint himself with the consequences of unacceptable factors on the environment.

Skills to be Learned

- Photo collage techniques
- Observation

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Teacher introduces concept of natural beauty using V. materials that illustrate concept in local area (travel brochures, etc. from Chamber of Commerce, photos of area from local newspapers, etc.).
   B. Have students brainstorm about local area and the places they are familiar with in terms of social, economic, cultural and political factors.
   C. Take a field trip to an undisturbed area. Discuss the area and its unique qualities while at the site.
   D. Take a field trip to an area where natural beauty has been disturbed and/or destroyed due to cultural, social, economic and political factors, or just one factor.
   E. Have students take or collect photos of these areas. (cont.)
Discipline Area: Art

Subject: Photography

Problem Orientation: Disturbed areas of the Environment

Grade 9-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity

A. Teacher introduces concept of natural beauty using A.V. materials that illustrate concept in local area (travel brochures, etc. from Chamber of Commerce, photos of area from local newspapers, etc.).

B. Have students brainstorm about local area and the places they are familiar with in terms of social, economic, cultural and political factors.

C. Take a field trip to an undisturbed area. Discuss the area and its unique qualities while at the site.

D. Take a field trip to an area where natural beauty has been disturbed and/or destroyed due to cultural, social, economic and political factors, or just one factor.

E. Have students take or collect photos of these areas. (cont.)

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

#### Publications:
- **Door County National Beauty Council Publications**
- *Camera (Eng. Edition), International magazine for Photography and Anemography*
  - Camera c/o Ralph Baum
  - Modernage Photo Services
  - 319 E. 44th St.
  - New York, N.Y. 10017

#### Audio-Visual:

#### Community:
F. Working from photos of areas that show cultural, economic, social and political have the students do drawings of area in vision it would appear with these elements removed or how these elements could be made compatible.

G. Have students photograph local area that retains its natural beauty and is untorn economic, political and social interest from an 8x10 enlargement, students superimpose billboards, buildings, roads, etc. into Images could come from other photos that students have taken or from magazines.

Variation: Small snapshots might be projected onto an opaque projector into large proceed from there.
BEHAVIORAL OBJECTIVES

I. Student-Centered in Class Activity

Skills to be learned:

<table>
<thead>
<tr>
<th>Discipline Area</th>
<th>Art</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject Condition</td>
<td>Natural resources are not equally distributed over the earth or over time and greatly affect the geographic</td>
</tr>
<tr>
<td>Product Orientation Unit</td>
<td>distribution over the earth or over time and greatly affect the geographic</td>
</tr>
<tr>
<td>Cognitive</td>
<td>The student will produce a unique communication pertaining to the promotion of a natural resource.</td>
</tr>
<tr>
<td>Affective</td>
<td>The student will acquaint self with local natural resources.</td>
</tr>
</tbody>
</table>

Skills in package design, art, and natural resources.

BEHAVIORAL OBJECTIVES

II. Product Due to

<table>
<thead>
<tr>
<th>BEHAVIORAL OBJECTIVES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skill in developing ideas</td>
</tr>
<tr>
<td>Skill in package design</td>
</tr>
<tr>
<td>Observation skills</td>
</tr>
</tbody>
</table>

SUGGESTED LEARNING ACTIVITY

A. Using large group discussion, establish ideas as to what, when and how something would be defined as a natural resource.

B. Using an outside resource person such as president of local Chamber of Commerce carry discussion on local natural resources and industries that are present in the area and the industries of local Chamber of Commerce.

C. From these discussions, the student is to choose a locally produced product as a basis for an advertisement.

D. Following the idea that this is a problem of both orientation, the student is to prepare an advertisement in a manner consistent with conditions and quality of life.
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. Using large group discussion, establish ideas as to what, when and how something would be defined as a natural resource.</td>
<td></td>
</tr>
<tr>
<td>B. Using an outside resource person such as president of local Chamber of Commerce carry discussion in the specific natural resources of the local area and the industries that are present in the area because of the resource.</td>
<td></td>
</tr>
<tr>
<td>C. From these discussions student is to choose a locally produced product as a basis for an advertisement.</td>
<td></td>
</tr>
<tr>
<td>D. Following the idea that this is a problem of local orientation, the student is to prepare his advertisement in a manner (Cont')</td>
<td></td>
</tr>
</tbody>
</table>
Resource and Reference Materials

Publications:
- Pioneers of Modern Typography,
  Design No. 253: 117 Jan. '70
- Fifty/Five: Effective Print
  Advertisements & TV Commercials
  Industrial Design 17: 78-9
  June '70
- Design & Art Direction,
  Graphis 25 No. 143: 214-29 '69-70

Audio-Visual:
- Using Community Resources,
  Film 240 (ESA 9
  City & Its Region 5893
  BAVI
  1327 University Ave.
  P.O. Box 1093
  Madison, Wis. 53701

Community:
- Chamber of Commerce
- Local newspaper
- Local commercial artist

Continued and Additional Suggestions:

(Con't from I. D.)

needed to produce it in a local market. The theme of the advertisement should stress the uniqueness of the product due to local resources. Base and production in other changes like locally produced goods.
Continued and Additional Suggested Learning Experiences

(Con't from I. D.)

needed to produce it in a local newspaper. The theme of the advertisement should emphasize the uniqueness of the product due to the locality of the resource base and production in other words "buy locally produced goods"
### 7. Factors such as facilitating trans- 

#### Discipline Area

<table>
<thead>
<tr>
<th>Subject</th>
<th>Orientation, economic conditions, population growth, and increased leisure time</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problem Orientation</strong></td>
<td>The student develops a plan of lettering style best fits the type of time.</td>
</tr>
<tr>
<td><strong>Completion of an Activity</strong></td>
<td>A. Split class into two groups: one represents leisure time; the other non-leisure time.</td>
</tr>
<tr>
<td><strong>Observational Skill</strong></td>
<td>B. From the lists of words obtained above, each student chooses several words from each type of time.</td>
</tr>
<tr>
<td><strong>Skill in Developing Ideas</strong></td>
<td>C. In small groups, students research lettering styles—history of the alphabet, type style, books, newspapers, magazines, etc., through discussion and research in the small group.</td>
</tr>
<tr>
<td><strong>Behavioral Objectives</strong></td>
<td>D. Through discussion and research in the small group, each student is to come to a decision as to what type of lettering style best fits the type of time.</td>
</tr>
</tbody>
</table>

#### SUGGESTED LEARNS

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Affective: The student learns to work in small groups.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Skills to be learned:</td>
</tr>
<tr>
<td></td>
<td>1. Lettering technique Quick thinking</td>
</tr>
<tr>
<td></td>
<td>2. Observational skill</td>
</tr>
</tbody>
</table>
SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Split class into two groups—one represents leisure time, the other non-leisure time. One group suggests a word that relates to its type of time—as quickly as possible (5-10 seconds) the second group counters with a word of its own. Play ends when it takes more than 15 seconds for one group to respond—the session could be taped or words transcribed by instructor.
   B. From the lists of words obtained above, each student chooses several words from each type of time.
   C. Then working in small groups of 3-4, students research lettering styles—history of alphabet, type style, books, newspapers, magazines, etc.
   D. Through discussion and research in the small group, each student is to come to a decision as to what type of lettering style best fits each of the words he has chosen (Cont.)
Resource and Reference Materials

Publications:
- Donald Jackson, Calligrapher & Illuminator, American Artist, 34:17-23, May, 1970
  1405 Locust Street
  Philadelphia, Penn. 19102

Audio-Visual:
- "The Alphabet of Art", B. F. A.

Community:
- newspaper office
- printing firms
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: The student will be able to appraise the environmental impact of billboards. |
| Affective: The student deliberately examines the variety of consequences of billboards on our environment. |

### Skills to be Learned

- Design techniques
- Developing & justifying ideas

### SUGGESTED LEARNING ACTIVITIES

1. **Student-Centered in class activity**
   - A. Large group discussion of billboards in local area.
     1. What purpose do billboards serve?
     2. Who sees them?
     3. Where are they located?
     4. Are there alternatives?
   - B. Field trip to areas of heavy billboard population.
     1. Verify points brought out in discussion.
   - C. Pop art influences may be a point of departure at this time.
   - D. The students should search out an existing billboard with this question having been posed to him, "Can design and placement of such a sign improve the existing situation?"
   - E. After choosing his problem the student is to redesign the sign and theoretically replace it in a location which no longer infringes upon the natural environment and still retains the exposure.

(cont.)
Discipline Area: Art
Subject: Commercial Art
Problem Orientation: Environmental Impact of Billboards
Grade 9-12

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Large group discussion of billboards in local area.
      1. What purpose do billboards serve?
      2. Who sees them?
      3. Where are they located?
      4. Are there alternatives?
   B. Field trip to areas of heavy billboard population.
      1. Verify points brought out in discussion.
   C. Pop art influences may be a point of departure at this time.
   D. The students should search out an existing billboard with this question having been posed to him, "Can design and placement of such a sign improve the existing situation?"
   E. After choosing his problems, the student is to redesign the sign and theoretically replace it in a location which no longer infringes upon the natural environment and still retains the exposure (cont.)
Resource and Reference Materials

Publications:

Audio-Visual:
"Using Community Resources"
Film 240 I-C-E RMC
"Poster"
B.F.A. Educational Media
2211 Michigan Ave.
Santa Monica, Calif. 90404

Community:

Continued and Additional Suggested Learning

I. (cont.)
the advertiser paid for.
F. The student is to justify his design by comparison with the real existing a presentation to the class.
Continued and Additional Suggested Learning Experiences

I. (cont.)
   the advertiser paid for.
   F. The student is to justify his design and placement by comparison with the real existing situation in a presentation to the class.
**BEHAVIORAL OBJECTIVES**

**Cognitive:** The student will construct a reusable design to illustrate how man can manipulate his environment.

**Affective:** The student realizes packages, etc. are reusable due to their design.

**Skills to be Learned**
- Observation
- Container design
- Developing ideas

**SUGGESTED LEARNING ACTIVITY**

**I. Student-Centered in class**

A. Students are instructed to collect as many examples of packages that are made to be used once and then thrown away.

B. In small groups, students compare and discuss how they differ from reusable containers. Compare the similarities. What design changes would be necessary?

1. How many are recycled?
2. How many could be?
3. What design changes would be necessary?

C. Student is to select a throw-away and redesign it so that it becomes reusable.

**Problem Orientation**

- Expectations
- Evaluation
Ability to manage, discipline area: Art
Subject: Commercial Art
Problem Orientation: Recycling
Grade 9-12

OBJECTIVES

- Student will be able to illustrate their problem to their peers.

SUGGESTED LEARNING EXPERIENCES

I. Student-Centered in class activity
   A. Students are instructed to collect as many examples of packages that are made to be used once and then thrown away.
   B. In small groups, students compare and discuss how they differ from reusable containers. Compare the similarities:
      1. How many are recycled?
      2. How many could be?
      3. What design changes would be necessary?
   C. Student is to select a throw-away and redesign it so that it becomes reusable.

II. Outside Resource and Community Activities
   A. Field trips to local stores to review how various containers and/or packages are displayed or used could provide valuable information.
<table>
<thead>
<tr>
<th>Resource and Reference Materials</th>
<th>Continued and Additional Suggested Material</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Publications:</strong></td>
<td></td>
</tr>
<tr>
<td>&quot;Technology: good servant or</td>
<td></td>
</tr>
<tr>
<td>errant monster?&quot;, Design,</td>
<td></td>
</tr>
<tr>
<td>No. 250:54-9, Oct. '69</td>
<td></td>
</tr>
<tr>
<td>&quot;What is a designer: education</td>
<td></td>
</tr>
<tr>
<td>&amp; practice&quot;, Design,</td>
<td></td>
</tr>
<tr>
<td>No. 253:117, Jan. '70</td>
<td></td>
</tr>
</tbody>
</table>

**Audio-Visual:**

**Community:**
- Local stores and industries
Continued and Additional Suggested Learning Experiences
PROJECT I-C-E Episode Evaluation Form (Reproduce or
in commenting on each episode used form. Feel free to adapt it and add your critiques and comments - negative hand column, please rate (poor, good, make specific comments or suggestions provided to help us make this a more useful grade: concept No. Used: ___)

<table>
<thead>
<tr>
<th>Poor</th>
<th>Good</th>
<th>Exc.</th>
</tr>
</thead>
</table>

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)
In commenting on each episode used in your class, please use this form. Feel free to adapt it and add more pages. Let us know all your critiques and comments - negative and positive. In the left-hand column, please rate (poor, good, excellent) each item. Also, make specific comments or suggestions if possible in the space provided to help us make this a more usable guide. Thank you.

Behavioral Objectives
Cognitive:

Affective:

Skills Developed

Suggested Learning Experiences
In Class:

Outside & Community Activities:

Suggested Resource & Reference Materials

Project I-C-F
Serving Schools in CESA 3-8-9
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Green Bay, WI 54301