Weather: A Learning Center Approach to the Teaching of Social Studies. Instructional Activities Series.

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ABSTRACT

This unit, one in a series of teacher-developed materials for elementary geography, is based on a part of a social studies textbook, "Topics of Life," Book Two. One section proposes a learning center environment to make learning experiences in social studies possible throughout the entire school day. The text's section has been expanded for this unit into 17 learning stations adapted to various abilities of second-grade students. An instructional objective is stated for each learning station. Student experiences are provided in each area of the curriculum. The unit concludes with suggestions for beginning the learning center, evaluation suggestions, and a list of references. See SO 009 140 for a general description and explanation of the elementary and secondary sets that comprise this series. (Author/ND)
The emphasis on the development of basic skills in the primary grades has a tendency to leave little time in the curriculum for social studies instruction. A social studies learning center environment will make learning experiences in this area possible throughout the entire day. Two pages from a social studies textbook have been expanded into seventeen learning stations, adapted to the various abilities of second grade students. For each learning station an instructional objective is stated. In this study unit on weather, experiences for the student are provided in each area of the curriculum. The areas included are reading, mathematics, science, art, music, and oral expression. Besides descriptions of each station, suggestions for the initiation of the unit and classroom organization procedures are provided. This unit has been used successfully in several classrooms.

Introduction

This unit of study has been prepared for children in a second grade classroom in Modesto. The textbook used in the classroom is Voices of Life, Book Two, published by Stone Educational Publications. Pages twelve and thirteen from the text served as the basis for the development of this package.

Theme of Voices of Life, Book Two

As man progresses from infancy to old age, he encounters challenging developmental tasks. In every culture, man needs the help of others in meeting these challenges.

Concepts Developed in this Unit

1. Man's physical environment has an effect upon his health.
2. People change their way of living to meet climatic conditions.
Instructional Organization of this Unit

1. Groupings
   a. Instructor plus total group
   b. Instructor plus small group
   c. Small group minus instructor
   d. Individual
   e. Instructor plus individual

2. Activities
   a. Total group learning experiences
   b. Learning Center experiences

Rationale for Total Group Instruction

Since second grade students are in the process of developing cognitive skills, it is necessary to do some direct teaching for input in the content area. Total group instruction seems to be the most expedient method for this purpose. Furthermore, social studies, as its name suggests, involves development of social (group) processes. The total group lends itself well to discussion, problem solving and the sharing of ideas. And, lastly, instruction in directions and organization is a profitable total group activity.

Rationale for Learning Center Experiences

In addition to total group instruction, the use of learning stations is necessary to encourage individual and small group activities. A learning center environment develops responsibility for learning in the student. He is allowed choice but is responsible for carrying through a task and recording his achievements. Learning station activities, also, meet the needs of individual learners in that tasks can be multi-level and paced for the ability of the student. Many types of activities such as graphing and art activities are more effective as small group activities.

Types of Learning Activities in this Unit

In the preparation of this unit, Fraenkel's suggestions for types of learning activities have been implemented. Fraenkel's types of learning activities are:

1. Intake of information
   a. Stations #1, 2, 3, 4, 5, 7, and 14 are primarily this type of activity.
   b. The total group instruction will also provide this kind of activity.

2. Organization of information
   a. Stations #5, 6, and 8 are concerned with this type of activity.

3. Demonstration of learning
   a. Stations #9, 11, 12, 13, 14, and 15 can be used for evaluation.
   b. The sharing of ideas in the total group provides opportunity for this type activity.

4. Self Expression
   a. Stations #10, 16, and 17 provide opportunities for self expression.
Goals and Instructional Objectives

Each station in the learning center has a specific instructional objective. However, the instructor should keep in mind those long range goals which he/she is attempting to help children achieve.

1. The student will gain in self control as evidenced by his ability to work independently.
2. The student will develop group awareness as evidenced by his consideration and concern for his fellow students.

STATIONS INCLUDED IN LEARNING CENTER

#1 Filmstrip Station

Instructional Objective: After watching the filmstrip, the student will be able to cite three sources of weather information.

Materials:
- Task card
- Small viewing screen
- KS-C-15046 Good Health Habits or other available filmstrip.

Procedure:
1. Limit center to five children.
2. Task card includes questions about the filmstrip for the children to answer.
3. Teacher meets with group to discuss filmstrip (about 5 minutes)

#2 Book Station

Instructional Objective: Given a variety of books, the student will be able to choose one and itemize one thing he has learned from the book.

Materials:
- Task card
- 3 x 5 cards
- This station should include at least 15 books of various reading levels. The books may deal with all aspects of weather such as children's experiences in different types of weather, descriptions of the four seasons, clouds, rain, wind and methods of measuring the weather. The Voices of Life, Book Two contains a bibliography. Local libraries have an ample supply of these types of books.

Procedure:
1. Children read a book of their choice and record the necessary information on a 3 x 5 card.
2. During total group discussions, children should be encouraged to share their experiences at the Book Station.
Reading Station

Instructional Objective: Given a reading selection, the student will be able to read it and answer a given set of questions.

Materials:
- 2 task cards
- Around the Corner - 4 copies, pages 113-126
- From Fins to Feathers - 4 copies, pages 80-85
- Paper
- Questions about each story

Procedure:
1. Work can be completed at station or seats.
2. Children read selected story and answer questions.
3. Children put papers in their folders.
4. Teacher calls up a group of 7 or 8 children periodically to discuss their readings.

Listening Post Station

Instructional Objective: Upon hearing a recording of various weather sounds, the student will be able to identify the type of weather with the sound.

Materials:
- Tape cassette player
- Head Sets
- A teacher made tape including eight clues describing various types of weather. The clues may be rain, thunder, children splashing in a swimming pool, wind, a dialogue of people planning a picnic, a football game, sleighbells, Christmas song etc.
- Paper folded in 8 parts
- Crayons

Procedure:
1. Limit to 4 students
2. Listen to record three times
3. Number the sounds on paper
4. Draw the type of weather in each box
5. Replay the recording and check answers

Radio News Station

Instructional Objective: The student will be able to listen to a radio weather broadcast and record the weather in Modesto and Anchorage, Alaska.

Materials:
- Task card
- Radio
- Notebook
Procedure:
1. Post two students' names daily
2. Students listen to report at 10 o'clock
3. Students keep record in small notebook
4. After two weeks, the teacher will work with a selected group on graphing a comparison of the two areas recorded. This comparison will be shared with the total group.

#6 Vocabulary Station

Instructional Objective: The student will be able to use each word listed verbally or in a written sentence.

Materials:
- Task card
- Picture atlas
- Dictionaries - a variety
- Paper

Procedure:
1. The words weather, climate, season, and clothes will be posted.
2. Children will record definition and use each word in a sentence.
3. During total group meetings, children will be asked to use these words in a sentence.

#7 What Shall I wear Station

Instructional Objective: Given a doll to dress, the student will be able to choose attire and dress the doll in the outfit best suited for the weather that day.

Materials:
- Task card
- Bulletin board
- 2 large paper dolls
- An assortment of clothes (made from scraps of material)
- Pins

Procedure:
1. The two dolls will be mounted on a bulletin board.
2. A student's name will be posted by each doll.
3. The student will choose attire and dress the doll.
4. The students will be encouraged to decorate the bulletin board daily with items such as sun, clouds, rain, etc.

#8 Temperature Station

Instructional Objective: The student will be able to read an outdoors thermometer and record his readings on a bar graph.

Materials:
- Task card
- Outdoor thermometer
- Large graph
- Individual graph paper
Procedure:
1. A student's name will be posted each day.
2. A time is established by the group to read thermometer and written on the group chart.
3. Designated student reads thermometer and records on the graph.
4. Students will be encouraged to keep individual graphs.

#9 Weather News Station

Instructional Objective: Given a newspaper, the student will be able to locate articles pertaining to the weather and post on a group chart.

Materials:
- Task card
- Newspaper (daily)
- Chart for display
- Scissors

Procedure:
1. Limit station to 2 students daily.
2. Student selects a weather article.
3. Student posts article on chart.
4. Time should be allowed for student to share information with total group.

#10 Write a Story Station

Instructional Objective: Given a story starter, the student will be able to write a story containing his feelings about a particular kind of weather.

Materials:
- Task card
- Story starters
- Paper

Procedure:
1. During total group activity, students should be encouraged to verbalize feelings about the weather.
2. Students should be introduced to this station only after 5 days work in unit. *Important - in order to insure success, the students need an opportunity to develop ideas about weather.*
3. Stories could be gathered into a class book to share with other school groups.

#11 Season Game

Instructional Objective: Given a group of words, the student will be able to read them and classify according to the four seasons.
Materials:
- Task card
- Directions for game
- Game materials

Procedure:
1. This station should be used by choice by the students.
2. A student may participate more than once.
3. Teacher will oversee game with first four students and then encourage these students to teach others.

#12 What Am I Doing Station

Instructional Objective: Given pictures of people in various attire, the student will be able to determine the role of the person by his attire.

Materials:
- Task card
- Book - Clothes From Head to Toe, Page 4, 5
- Pictures numbered on page of book
- Paper

Procedure:
1. Book is displayed open.
2. Child writes on paper what he thinks each person is doing.
3. The child unable to write should work verbally with the teacher.
4. Child keeps paper in his folder until teacher works with him.

#13 Hot - Cold - Wet - Dry Station

Instructional Objective: Given a set of pictures of clothes, the student will be able to classify them as to the suitable climate.

Materials:
- Task card
- Book - Clothes From Head to Toe, page 11
- Drawing paper
- Crayons

Procedure:
1. Limit station to two students
2. Display book open to page 11
3. Students draw displayed attire
4. Then each item is labeled by student either hot-cold-wet or dry
5. Papers should be shared periodically

#14 Health Book Station

Instructional Objectives: a. After reading pages 42, and 43 of the health book, the student will be able to list one reason for illness and one way to prevent illness.

b. After reading pages 62, 63, and 64 of the health book, the student will be able to answer questions as to what to wear in specific weather conditions.
Materials:
- Task card "a" and "b"
- Books - 3 or 4: Health 2, Task "a" pages 42-43, and Task "b" pages 62-63
- Paper

Procedure:
1. Student may choose task "a" or "b".
2. Student reads designated pages and answers listed questions.
3. Student keeps paper in folder and teacher calls up a small group to discuss work.

#15 Four Season Picture Station

Instructional Objective: Given a group of pictures, the student will be able to sort into groups according to the four seasons.

Materials:
- Task card
- Folder divided into four sections and labeled: Fall, Winter, Spring, Summer
- Group of pictures
- Magazines

Procedure:
1. Limit to two children
2. Children take pictures and place in folder according to seasons
3. Magazines are available for children to add to collection of pictures
4. Teacher will listen to children explain their choices

#16 Mural Station

Instructional Objective: The student will be able to assist in the making of a mural depicting trees during each of the seasons.

Materials:
- Task card
- Butcher paper
- Bulletin board
- Pink crepe paper, green, red, orange, yellow, and red construction paper
- Brown paint
- Film - F 718 Seasons of the Year - or other available film

Procedure:
1. Second day of work on the unit, show film to total group
2. "Think" circle discussion of the way trees look in Winter, Spring, Summer, Fall
3. Motivation to make a mural of trees
4. Teacher prepares bulletin board in this manner:

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FALL  WINTER  SPRING  SUMMER
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5. Class chooses painters for trunks of trees.
6. Each day, four willing students designated to work on mural.

#17 Painting Station

Instructional Objective: Given art materials, the student will be able to paint a picture depicting a particular type of weather.

Materials:
- Task card
- Art material - poster paints and paper or water color and paper

Procedure:
1. Limit station to the number of places available.
2. A place should be made available to display pictures.

Supplemental Materials Available

Audio-Visual Materials:
- Whatever the Weather
- What is Weather
- Seasons of the Year
Materials may be substituted according to availability.

Songs and Records - Exploring Music, Book 2
- Rainy Day - page 69
- The Mist and All - page 75
- Sleigh Ride - page 93
- Jack Frost - page 112
- Rain Song - page 126
- Poem - The Garden Year - page 157
- Winter is Over - page 159

Organization of Classroom

Environment
A classroom learning center environment can be organized in many ways. The teacher will have to adjust the placement and use of the learning stations to the space and arrangement of the classroom. In a large room stations may be placed on tables in one area. Each station must be clearly defined. However, most rooms do not have this space so the stations could be arranged on shelves by the windows and at various places around the room. It is sometimes convenient to put all of the materials for a station in a box that can be carried to a student's desk for use. Each station must have a task card. A task card is a set of directions for the use of the station. These directions must include a list of materials necessary for the task, the procedure for accomplishment of the task, provision for placement of student's product and suggestions for maintenance of the station. The reading level of the students should be taken into account when preparing a task card. Some teachers develop task cards using a rebus to convey ideas.
Sample task card

# 10 Write a Story Station

Materials: pencil, paper, story, starter.

TO DO: 1. Choose a starter  
2. Write a story.  
3. Put your story in your folder.  
4. Clean up the station!!

Recording of Student Activities

The individual recording of tasks by students is an important aspect of the learning center approach. Each student will receive a contract with an area for each station. In this particular unit, every student is expected to complete the first ten stations. However, this need not be accomplished sequentially. As a student completes a station, he will color in that station on his contract. The student will also be provided with a folder to hold his contract and papers. The folder will be color coded as to boys and girls for easy access. These folders will be stored in a rack.

Suggestions to the Teacher

Initiation of This Unit

First day: Arrange students in the "think circle". Pass out Voices of Life, Book 24. Study together pages 12, 13. Use questions such as:

- What is the baby wearing? What is the jacket made of? Does anyone know the name of that kind of jacket? Do you have a parka? In what kind of weather would you wear a parka? Do you think the baby lives in Modesto? Why? Does he always wear the parka? Are there times in Modesto that we could use a parka? How do you know what to wear?

Continue in this manner allowing all responses. Then suggest to the class that you have prepared many interesting activities to help them learn about weather and climate. Show three of four stations with careful explanation of their use. Introduce folder and allow children to decorate and place in rack.

Second day: Teach a weather song. Then show a selected film on weather. Discuss film and show three or four more stations with careful explanation of their use. Distribute contracts and allow children to put names on them and place in their folders.

Third day: Read a short story about the weather to the children. Then review functioning of stations already explained and introduce three more. Children should then be allowed to use stations of their choice for about 15 minutes. Keep yourself free for supervision of work and recording. Regroup in total group and discuss successes and failures of activities.

Fourth day: Assemble in total group. Introduce a few more stations and then disperse for learning center activities. Once again, keep yourself free for careful supervision. After 20 minutes of learning center activities, reassemble into total group and evaluate activities. Encourage sharing of
Fifth day: Show film Seasons of the Year and develop idea for Mural Station. Continue introduction of stations.

Next week and until termination of this unit: Each day have a very short discussion before dispersing for learning center activities. In order to develop independence in the students, the teachers should endeavor to lessen his role of a supervisor. During the learning center activities, the teacher should work with various small groups, checking contracts, work and concepts. Before terminating activities each day, the total group should be assembled to evaluate the days activities and to share their experiences.

Evaluation of the Student's Learning:

1. Teacher observation of student's job performance and attitudes may be used for evaluation.

2. A test could be used which would be given orally by the teacher and responded to with paper and pencil by the students.

   Questions for the test:

   a. Fold paper in 4 boxes
   b. Write the name of a season in each box.
   c. In each box draw the clothing for that season.
   d. On the back of the paper, draw or write three ways to find out about the weather.
   e. Use the word "climate" in a sentence.
   f. Use the word "weather" in a sentence.
References

Books


Audio-Visual Materials


2. Seasons of the Year - F - 1952 - 12 minutes - Coronet

3. Whatever the Weather - F - 1967 - 10 minutes - Educational Horizons


5. Seasons of the Year - F - 1952 - 12 minutes - Coronet