

Based on the California quarter reverse



OBJECTIVE

Students will identify how they depend on others. Students will investigate what plants and animals depend on to survive.



MATERIALS

- Chalkboard/chalk
- Chart paper/markers
- Lined paper
- Pictures of forest habitats, available on Web sites such as:
 - www.butterfly-guide.co.uk/survival/habitat/forest.htm
 - www.seattleaudubon.org/Conservation/CampaignsProjects/ForestHabitat.html
 - www.gatewest.net/~cwhp/habitat/rbf.html
- Pictures of desert habitats, available on Web sites such as:
 - www.naturesimage.net/images/DesertHabitat.html
 - www.ice.mpg.de/tmo/wild/hab/desert 1.htm
 - www.ecoscene.com/eco habitat.html
- 1 overhead projector (optional)
- "California Quarter Reverse" page
- 1 class map of the United States
- Pictures of the Yosemite Valley, available on Web sites such as:
 - pangea.stanford.edu/~juanes/images/YosemiteValley.jpg
 - www.usatourist.com/slideshows/california/pages/Yosemite%20Valley.html
 - home.wanadoo.nl/mdalvoorde/images/YosemiteWindow.jpg
- 1 copy of an age-appropriate text about plants and wildlife like those found in Yosemite Valley, such as:
 - Yosemite National Park (A New True Book) by David Petersen
 - Forest Explorer: A Life-Size Field Guide by Nic Bishop
 - Hidden Life of the Forest by David Schwartz
 - Forest Plants by Ernestine Giesecke and Eileen Mueller Neill
 - How a Seed Grows by Helene J. Jordan
 - *A Log's Life* by E. Wendy Pfeffer
- Sticky notes
- A model diorama with labeled parts



- "Habitat Research" page
- Appropriate research materials of all reading levels including books, encyclopedias, bookmarked websites, magazines, etc.
- A computer lab for student research (optional)
- Boxes for dioramas
- Crayons, markers
- Glue
- Small slips of paper
- Construction paper
- Scissors



PREPARATIONS

- One week before Session 1, ask students to bring in boxes for dioramas.
- Make copies of the "Habitat Research" page (1 per student).
- Make an overhead transparency (or photocopy) of the "California Quarter Reverse" page.
- Assemble pictures of forest and desert habitats (see examples under "Materials").
- Assemble pictures of the Yosemite Valley (see examples under "Materials").
- Locate an age-appropriate text relating to plants and wildlife like those found in the Yosemite Valley (see examples under "Materials").
- Assemble appropriate research materials of all reading levels including books, encyclopedias, bookmarked websites, magazines, etc.
- Reserve a computer lab for student research (optional).
- Create a model diorama.
- Cut unlined paper into small strips for diorama labels (several per group).



GROUPINGS

- Whole group
- Small group
- Individual work



CLASS TIME

Five 30- to 45-minute sessions





CONNECTIONS

- Science
- Social Studies
- Language Arts
- Art



TERMS AND CONCEPTS

- Ouarter
- Reverse (back)
- Habitat
- Dependence



BACKGROUND KNOWLEDGE

Students should have a basic knowledge of habitats.



STEPS

Session 1

- 1. Write the word "depend" on the board. Have the students repeat after you as you say the word aloud. Ask students if they recognize this word.
- 2. Have the students discuss what it means to depend on someone. Ask the students to give examples of when they have depended on someone. List student responses on chart paper. Examples may include that students have depended on their parents for food and shelter, depended on their friends to keep secrets, depended on their teacher to help them learn, etc.
- 3. On the board, write the following prompt: "Write about a time when you depended on someone to do something for you."
- 4. Distribute one piece of lined paper to each student. Direct the students to respond to this prompt on the lined paper.
- 5. Allow five to ten minutes for student writing.
- 6. Allow student volunteers to share their responses. List additional ways that students depend on people or communities on the piece of chart paper. Answers may include firefighters, police, doctors, hospitals, etc.
- 7. Explain to the students that things in nature depend on each other, too. Ask the students if something found in nature (like a plant) might depend on the same things that we do (like a



- grocery store). Students should respond with the idea that plants may depend on different things than people do.
- 8. Have the students guess what kinds of things a plant depends on to survive (live). Write the responses on a new piece of chart paper. Students responses may include: sunlight, water, soil, time, etc.
- 9. Introduce the idea that there are many different types of plants living in many different types of environments or habitats.
- 10. Review the term "habitat." Remind the students that a habitat is made up of food, water, shelter, and space. As an example, display a picture of a forest habitat and a picture of a desert habitat. Ask the students to guess what kinds of plants they would find in the forest habitat. Students may respond that they would find trees, flowers, grasses, etc.
- 11. Have the students discuss how plants in the desert habitat would be different from those in the forest. Responses may include that plants in the desert would need less water than plants in the forest, while plants in the forest may need less sunlight than those in the desert.
- 12. Display the picture of the forest habitat again and explain to the students that they will be further investigating the kinds of plants that live in this environment and what they depend on to survive.

Session 2

- 1. Ask the students to review with a partner what the word "depend" means and how it relates to plants. Have the students recall what types of things a plant depends on for survival.
- 2. Display the picture of a forest and ask students to identify the habitat. The students should identify the habitat as a forest.
- 3. Repeat Step 2 with the picture of a desert habitat.
- 4. Describe the 50 State Quarters® Program for background information, if necessary, using the example of your own state, if available. Then display the transparency or photocopy of the California quarter reverse. Locate California on a classroom map. Note its position in relation to your school's location.
- 5. Have the students identify various elements on the coin. The students should identify a mountain, a tree, a man, and a bird. Ask them to guess the name of the man on the coin. Accept all student responses.
- 6. Identify the man on this coin as John Muir. Explain that John Muir had a special relationship with California. He loved nature and wanted to conserve (save) the trees, mountains, lakes, plants, and animals so that they would be around for a long time.
- 7. Display several pictures of the Yosemite Valley. Explain to students that this is the area of land depicted on the coin and is part of the Yosemite National Park in California.



- 8. Ask the students to look at the coin and determine if the scenery looks more like a forest or a desert. Have students discuss what led them to their decision. Students should respond that the trees in the background suggest that this habitat is a forest.
- 9. Explain to the students that they are going to investigate and learn more about the forest habitat in the Yosemite Valley.
- 10. Introduce the students to the selected text. Ask the students to pay special attention to all of the living things one can find in a forest habitat like the Yosemite National Park. Read the story aloud.
- 11. Have the students generate a list of some of the living things that can be found in a forest like the Yosemite National Park and Yosemite Valley. Record student responses on sticky notes and place them on the board.
- 12. Arrange the students into small groups of three or four.
- 13. Read down the list as a class and sort the sticky notes on the board into two columns: plants and animals.
- 14. Explain to the students that they will be creating a habitat diorama for their selected plants or animals. Each diorama will include everything that the plant or animal depends on to survive (live).
- 15. Using the example diorama, model what the student dioramas will look like when completed. Point out the labels that identify each element in the habitat that the plant or animal depends on to survive (live).
- 16. Invite one or two groups at a time up to the board and direct them to select one of the sticky notes (plant or animal) from the list. Explain that this plant or animal will be the focus of the group's diorama.

Session 3

- 1. Distribute one "Habitat Research" worksheet to each student. Explain to the students that, in order to create their dioramas, they must first research their selected plant or animal and list what the plant or animal depends on for survival.
- 2. Provide appropriate research materials on a variety of reading levels, such as books, encyclopedias, bookmarked websites, magazines, etc.
- 3. Allow an appropriate amount of time for student research.

Sessions 4 and 5

1. Using the example diorama, model once again what the student dioramas will look like when completed. Point out the selected plant or animal that is the focus of the habitat. Then, point out all of the labels which identify elements in the habitat that the plant or animal depends on to survive (live).



- 2. Explain that the students will use their "Habitat Research" worksheets as checklists to make sure that each of these elements is included in each diorama.
- 3. Distribute one box to each group and make crayons, glue, small slips of paper for labels, markers, construction paper, and scissors available to the whole class.
- 4. Allow an appropriate amount of time for students to create dioramas.
- 5. When finished, have each group confirm that all needed elements are included and labeled in its diorama.
- 6. Distribute one piece of lined paper to each student. Direct the students to individually write a paragraph describing the life needs of his or her group's plant or animal as depicted in the group's diorama. Collect this paragraph for individual assessment.
- 7. Conduct a show-and-tell activity in which students present and explain their dioramas.



ENRICHMENT/EXTENSIONS

Create a "Museum Day" in your classroom by displaying all of the dioramas and having another class in to visit. As students from the visiting class walk around the room, direct the groups to explain their dioramas. Have each group identify what its plant or animal needs for survival and where in their habitat they can find it.



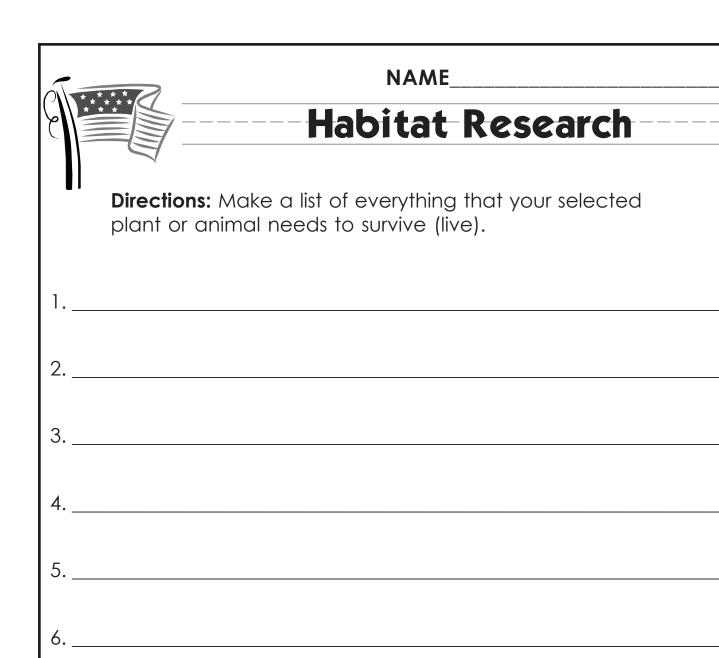
DIFFERENTIATED LEARNING OPTION

Allow students to draw or dictate responses to the writing assignments in session one and sessions four and five.



CONNECTION TO WWW.USMINT.GOV/KIDS

Yosemite isn't the only national park featured on a coin design. In August of 1999, the United States Mint H.I.P. Pocket ChangeTM Web site saluted the Yellowstone National Park Commemorative Silver Dollar as its coin of the month. (www.usmint.gov/kids/index.cfm?fileContents=coinNews/cotm/1999/08.cfm)





California Quarter Reverse

