

### Based on the North Dakota quarter reverse



### **OBJECTIVES**

Students will understand and apply the term "conservation." Students will define the term "endangered species."



### **MATERIALS**

- 1 overhead projector
- Copies of the following worksheets:
  - "3 R's"
  - "Bison Information"
- 1 overhead transparency of each of the following:
  - "3 R's" worksheet
  - "North Dakota Quarter Reverse" page (or photocopy)
  - "Bison Information" worksheet
- Chart paper
- Markers
- Large index cards
- 1 class map of the United States
- Images of the Badlands
- Copies of a text that gives basic information about conservation and recycling, such as:
  - Where Does the Garbage Go? by Paul Showers
  - Recycle! by Gail Gibbons
  - Garbage and Recycling by Rosie Harlow and Sally Morgan
  - Conservation and Natural Resources by Jackie Ball
- Locate a text that gives basic information about the bison and endangered species, such as:
  - Will We Miss Them? Endangered Species by Alexandra Wright
  - It Could Still Be Endangered by Allan Fowler, Janann V. Jenner, Linda Cornwell
  - Water Hole by Graeme Base
- White drawing (or construction) paper 12 X 18 inches
- Pencils
- Crayons or colored pencils





### **PREPARATIONS**

- Make copies of the following:
  - "3 R's" worksheet (1 per student)
  - "Bison Information" worksheet (1 per student)
- Make an overhead transparency of each of the following:
  - "3 R's" worksheet
  - "North Dakota Quarter Reverse" page
  - "Bison Information" worksheet
- Locate texts that give information about conservation and recycling (see examples under "Materials").
- Locate a text that gives information about bison and endangered species (see examples under "Materials").
- Bookmark appropriate Internet sites relating to bison.
- Reserve the computer lab for one session.
- Gather images of the Badlands.
- Gather trifold brochures as examples of format in Session 3.



#### GROUPINGS

- Whole group
- Small groups
- Pairs
- Individual work



#### **CLASS TIME**

Four 30- to 45-minute sessions



### **CONNECTIONS**

- Social Studies
- Science
- Language Arts



### TERMS AND CONCEPTS

- Obverse (front)
- Natural Resources
- Behavior

- Reverse (back)
- Environment
- Endangered
- Conservation
- Lifespan
- Extinct





### **BACKGROUND KNOWLEDGE**

Students should have a basic knowledge of:

- Coins
- Reduce
- Reuse
- Recycle
- Research techniques



### **STEPS**

#### Sessions 1 and 2

- 1. Ask the students what they think the word "conservation" means. Record student responses and, if necessary, provide the definition (a careful preservation and protection of plants, animals, and natural resources).
- 2. On a piece of chart paper, write the word "conservation." Turn on all of the electrical items in the classroom (lights, overhead projector, radio), toss some paper on the floor, and let the water run in the sink. Ask the students if you are conserving or preserving what you have in the classroom. Ask the students to explain why those aren't examples of conservation. Students should respond that you were wasting the electricity, water, and paper.
- 3. Tell the students that they will be looking at ways to conserve energy, natural resources, and wildlife. Ask the students how you could have made a better choice in conserving items in the classroom. Student responses should include turning off the water and lights when not in use and recycling paper.
- 4. Write the term "natural resources" on the chart paper. Ask the students for the definition for "natural resources." If necessary, explain that they are "materials that come from nature that are useful to people." Ask the students for examples. If necessary, give "water" and "trees" as examples. Draw images next to the words to help the students remember the definition.
- 5. Introduce the students to the selected text about conservation and recycling. As a group, preview the text and illustrations to generate observations about what is occurring at different points in the text. Read the selected text to the class and attend to any unfamiliar vocabulary.
- 6. Record key information from the text on the chart paper. Review the definitions and information with the students.
- 7. Using a tree as an example, discuss ways that natural resources are used and how they can be conserved. Answers can include that trees provide us with pencils, paper, furniture, and fruit. We need to replace the trees we use with new ones.



- 8. Explain to the students that recycling is a way we can conserve what is important to us. Review the terms "reduce," "reuse," and "recycle" with the students.
- 9. Distribute a "3R's" worksheet to each student and display the corresponding overhead transparency. As a class, review the directions and do the top part together. Divide the class into small groups and have them work together to complete the worksheet and talk about ways that they conserve and recycle at home and at school.
- 10. As a class, discuss the ideas from the small groups. Record the students' ideas on the overhead transparency.
- 11. Have the students get into pairs and create a colorful conservation poster showing how people can preserve resources. Invite the pairs to present their posters and, if possible, act out a few of the examples such as turning out the lights and water when not in use.
- 12. Ask the students to create a conservation reminder card. The students will use a large index card to remind others of one way they can conserve resources. Have the students take the cards home and to other classes to share.
- 13. Collect the student worksheets and display the posters in the classroom.

#### Sessions 3 and 4

- 1. Describe the 50 State Quarters® Program for background information, if necessary, using the example of your own state, if available. Locate North Dakota on a classroom map. Note its position in relation to your school's location.
- 2. Display the "North Dakota Quarter Reverse" overhead transparency or photocopy. Have the students examine the design and identify the images, including the sun, the bison grazing, and the landforms (the Badlands).
- 3. Display the images of the Badlands for the students to see. Tell the students that the Badlands are known for their beauty and ruggedness. The Badlands were formed by erosion when bursts of heavy rain were followed by periods of drought.
- 4. Ask the students why they think that the items shown on the coin might be important to North Dakota, and accept all responses. Have the students brainstorm what they know about bison. Lead a class discussion on the difference between a buffalo and a bison. Include the idea that the buffalo is genetically the bison's cousin, but they are different animals. Only the bison is native to the United States, but the American bison is often called a buffalo.
- 5. Introduce the students to the selected text about the bison and endangered species. As a group, preview the text and illustrations to generate observations about what is occurring at different points in the text. Read the selected text to the class and attend to any unfamiliar vocabulary.



- 6. Ask the students to give key information about the bison from their background knowledge or what they learned from the text. Record student responses on a piece of chart paper.
- 7. Remind the students of the definition of "conservation" (a careful preservation and protection of plants, animals, and natural resources). Display the definition on the chart paper from the previous session.
- 8. Ask the students to brainstorm examples of what animals may need protection and why. On a piece of chart paper, create a concept web to record the student's responses. The list of animals can include the sea turtle and whale.
- 9. Ask the students for a definition of "endangered." Reponses should include "animals that can become extinct if they are not helped." If necessary, explain that "extinct" means that none of a certain animal is alive anymore.
- 10. Tell the students that the bison is one example of many endangered animals, but the bison is no longer endangered because people made efforts to conserve it. The students will be doing research to learn more about the bison to find out how people protected it.
- 11. Distribute a "Bison Information" page to each student. Review the directions with the students.
- 12. Take the students to the computer lab and have them visit bookmarked Internet sites. Allow the students to work in pairs to complete the "Bison Information" page using all the available resources. If necessary, ask each pair of students to complete a few of the questions from the worksheet. Review all the answers as a class.
- 13. Display the "Bison Information" overhead transparency and discuss as a class the information found about the bison.
- 14. Distribute the sample trifold brochures for the students to examine. Discuss what kind of information is on them and how it is displayed. Tell the students that they will use the research collected from the "Bison Information" page to create their own trifold brochure about the bison, what people have done to protect it, and what can be done to protect other endangered animals.
- 15. Allow students sufficient time to complete their trifold brochures.
- 16. Display the brochures in the classroom or school media center.



#### **ASSESSMENT**

- Take anecdotal notes about the students' participation in class discussions.
- Evaluate the students' worksheets, posters, and brochures for achievement of the lesson's objectives.





### **ENRICHMENTS/EXTENSIONS**

- Ask a member of the community to come and speak about recycling in your area.
- Have students research Theodore Roosevelt, who was a conservationist and has a National Park in North Dakota named after him.



### DIFFERENTIATED LEARNING OPTIONS

- Provide books on tape.
- Allow students to dictate their answers to a scribe.
- Allow students to work in pairs throughout the lesson.



### CONNECTION TO WWW.USMINT.GOV/KIDS

Invite students to visit "Coin of the Month" and look at other coins with bison on them such as the Kansas quarter at www.usmint.gov/kids/index.cfm?fileContents=coinNews/cotm/2005/09.cfm, the American Bison Nickel at www.usmint.gov/kids/

index.cfm?fileContents=coinNews/cotm/2005/03.cfm, and the Indian Head/Buffalo Nickel (1913–1937) at www.usmint.gov/kids/index.cfm?fileContents=coinNews/cotm/2001/06.cfm.

Grades 2 and 3



Name \_\_\_\_\_

### Three R's



1	What a	are the 3	" R' s"	of resource	CONSERV	ation?
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R\_\_\_\_\_

R

R\_\_\_\_\_

### 2. List ways that people can:

Reduce \_\_\_\_\_

Reuse \_\_\_\_\_

\_\_\_\_

Recycle \_\_\_\_\_



# Three R's

### 1. What are the 3 "R's" of resource conservation?

### **Reduce**

Reuse

R<u>ecycle</u>

### 2. List ways that people can:

### Reduce

- Buy "in bulk"—more than is needed immediately to reduce shopping trips.
- Buy larger packages that will last longer to reduce shopping trips.
- Look for products with light packaging to reduce shipping weight.
- Fix dripping faucets to reduce water wasting.
- Water saving showerheads to reduce water wasting.
- Don't let water run while brushing your teeth to reduce water wasting

#### Reuse

- Wash glass and plastic containers and use them again
- Build compost piles to reuse garden waste.
- Refinish, paint, or repair old furniture to extend its usefulness.
- Tear up old clothes to reuse as cleaning rags.

### Recycle

Recyclable items include:

- glass bottles
- aluminum cans
- plastic containers
- newspapers and some magazines
- cardboard boxes



# **Bison Information**

**Directions:** Use this sheet to take notes about the bison.

Features:	_
Size:	
Lifespan:	_
Native environment:	
Food:	
Behavior:	
Threats:	
Solutions:	
	_



## North Dakota Quarter Reverse

