

5: A Biome to Call Home

Based on the Arkansas quarter reverse



OBJECTIVE

Students will research, present and compare the information about the features of seven biomes that exist in the United States.



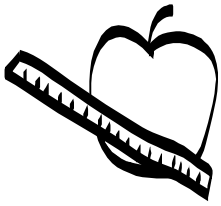
MATERIALS

- 1 overhead projector (optional)
- 1 overhead transparency (or photocopy) of the Arkansas quarter reverse
- 1 class map of the United States of America
- Chart paper or a chalk/white board
- Markers or chalk
- Copies of the “A Biome of My Own” worksheet
- Pencils
- Copies of the student role cards
- Crayons, colored pencils, and/or markers
- Scissors
- Butcher/poster paper
- Copies of the “A Biome for Every Home” worksheet
- Atlas(es)



PREPARATIONS

- Make an overhead transparency (or photocopy) of the Arkansas quarter reverse.
- Make copies of the “A Biome of My Own” worksheet (1 per student and 1 per group).
- Make copies of the student role cards (1 sheet per group).
- Make copies of the “A Biome for Every Home” worksheet (1 per student).
- Arrange for the school librarian or media specialist to coordinate a set of appropriate reference materials which describe the different biomes.
- Bookmark appropriate Web sites, on classroom or computer lab computers, which describe the features of different biomes in the United States.
- Make a class biome chart listing the name of each biome and the column titles that mimic those on the “A Biome of My Own” worksheet.



Identifying U.S. Ecological Communities



GROUPINGS

- Whole group
- Small groups
- Individual work



CLASS TIME

Three 45- to 60-minute sessions



CONNECTIONS

- Science
- Social Studies
- Language Arts
- Art
- Technology



TERMS AND CONCEPTS

- Quarter
- Biome/region
- Desert
- Chaparral
- Temperature
- Animal life (fauna)
- Reverse (back)
- Deciduous forest
- Mountain zones
- Taiga
- Rain fall
- Ecology
- Natural resources
- Grasslands
- Rainforest
- Land features
- Vegetation (flora)
- Communities



BACKGROUND KNOWLEDGE

Students should have a basic knowledge of:

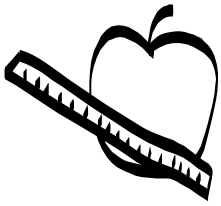
- Internet and textual research
- Referencing Internet and text resources
- Natural resources
- U.S. geography



STEPS

Session 1

1. 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 Arkansas quarter reverse. Select a student to locate Arkansas on a classroom map. Note its position in relation to your school's location.

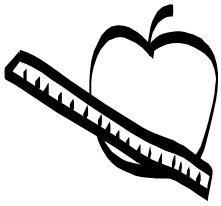


A Biome to Call Home

2. With the students, examine the design on this coin's reverse. Ask students to identify objects they recognize: a duck (mallard) in flight, a forest, water, a diamond, and a stalk of rice.
3. Ask the students what kinds of animal and plant life (from personal experiences or from the coin design) they would expect to find in Arkansas. Would they expect to find cactus, polar bears or elephants in Arkansas? Ask students to explain why they would not expect to find these animals there. (Student responses should include references to climate needs for these organisms.)
4. Ask students why they think Arkansas chose to put these images on their quarter? To prompt student thinking, explain that a nickname for Arkansas is "The Natural State." Answers should relate to the idea that Arkansas is famous for its natural resources.
5. Build on student responses to introduce the topic of discussion: Biomes. Explain that the natural resources and forms of wildlife that exist in Arkansas—and that they have put on their quarter—are not items that are necessarily native to other parts of the country. Compare these natural resources to ones found at the location of the school. Conduct a brief compare/contrast discussion about this.
6. Write the word "Biome" on the chalkboard or whiteboard for the students to see and ask the students if they've ever heard this word. Explain that it's just another name for a region that is characterized by a certain group of plants, animals, and climate.
7. Create a class chart with the following columns: Name of Town, Land Features, Weather, Vegetation, and Animal Life. As a class, discuss the town/district where their school is located. While discussing the various characteristics of this area, fill in the class chart.
8. Ask students whether these characteristics are the same across the United States. Tell the students they will examine and compare the features of the different biomes that exist in North America.

Session 2

1. Distribute the "A Biome of My Own" worksheet to each student.
2. Divide students into eight research groups, and assign each group a different biome (biomes to assign include the deciduous forest, grasslands, the desert, the tundra, mountainous regions, rainforest, taiga, and chaparral). Assign each biome group a color to represent their biome.
3. Distribute role cards to each research group. Instruct each group to review and assign these roles amongst themselves (some of these roles may overlap depending on the size of the groups).



A Biome to Call Home

4. The students will use library and monitored computer resources to research the characteristics of their assigned biome and to fill in their “A Biome of My Own” worksheet. Ask the students to find images of natural resources in their group-assigned biome.
 5. Once independent research is conducted, the students will regroup in their teams to discuss/verify the information that they have each collected.
- Note:** The recorder for each group will need to be given an additional “A Biome of My Own” worksheet in order to take notes on the group discussion.
6. Each group will need to gather a large piece of butcher’s paper and drawing materials. Using these materials, each group will create a poster to describe the life and climate of their assigned biome. Allow students time to practice their presentations in preparation for the next class period.

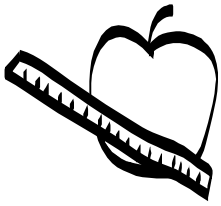
Session 3

1. Distribute the “A Biome For Every Home” map to each student.
2. Each group will display and present the information that they found. The Reporter will share how his/her group chose to represent the features of their region. The students should be encouraged to ask questions to the presenting group, once their presentation is complete.
3. When the student groups describe where their particular biome can be found in the United States, the rest of the class will use their crayons/colored pencils to place an “X” in that area on the map and an “X” of the same color in the map key next to the corresponding biome name.
4. When all groups have presented their work, the students will finish shading in the areas on their maps in the same colors as the marks they’ve already made.
5. After all groups have presented their work, wrap up the discussion of biomes by returning to the Arkansas quarter. Ask students to use their map to help them name the biome of which Arkansas is a part. Ask students to name other states within that biome.

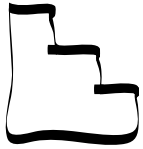


ENRICHMENT/EXTENSIONS

- This activity could also be used as an opportunity to introduce students to the terms of flora and fauna.
- Guide students in the creation of a computer



A Biome to Call Home



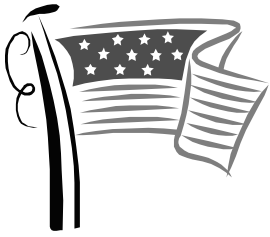
DIFFERENTIATED LEARNING OPTION

Conduct a guessing game similar to “20 Questions” as a follow-up to the research activity. Instruct a student select a biome from a hat and have the class ask questions to determine which biome was chosen.



HPC CONNECTION

Have natural materials made a home for themselves on any other quarter in the 50 State Quarters Program? Have your students play the HPC game “Cents of Color” to find out! (<http://www.usmint.gov/kids/index.cfm?Filecontents=/kids/games/index.cfm>)



NAME _____

A Biome of My Own

Name of Biome _____

LOCATION



FEATURES



TEMPERATURE



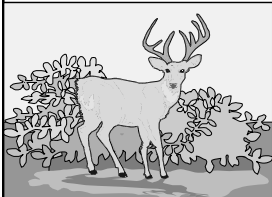
RAINFALL



VEGETATION



ANIMAL LIFE





Student Role Cards

INSTRUCTIONS

Review the roles listed below, and assign one to each member.

Role #1—**Facilitator:** Makes sure that each member contributes to the group. Also keeps the group on task.



Role #2—**Recorder:** Takes notes on the group discussion. Also records the group information on the class chart during the group's presentation.



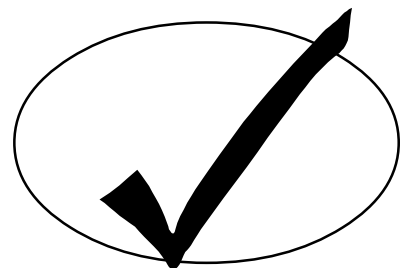
Role #3—**Reporter:** Presents the information that the group gathers and displays.



Role #4—**Materials Manager:** Gathers, distributes, collects, and returns any group materials. Also assumes responsibility for all the materials during group work.



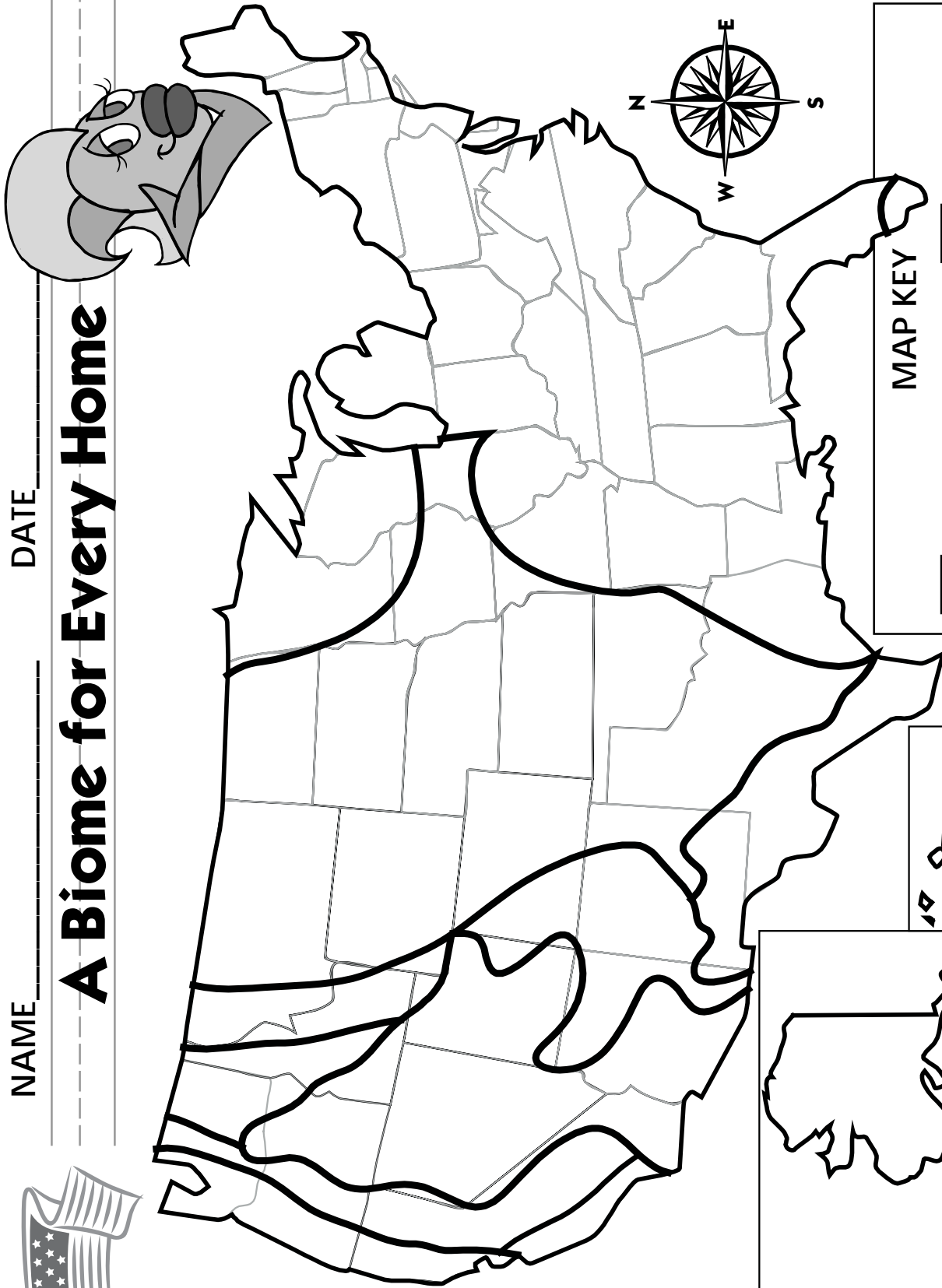
Role #5—**Checker:** Checks that thinking is clear during group discussion, work, and the preparation of the group presentation.



NAME _____

DATE _____

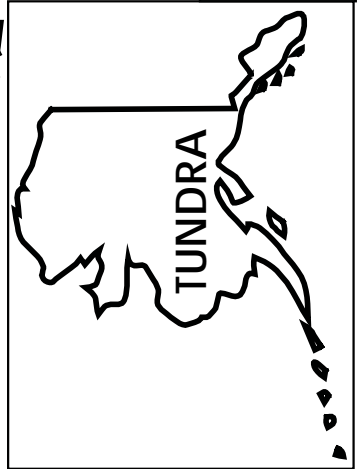
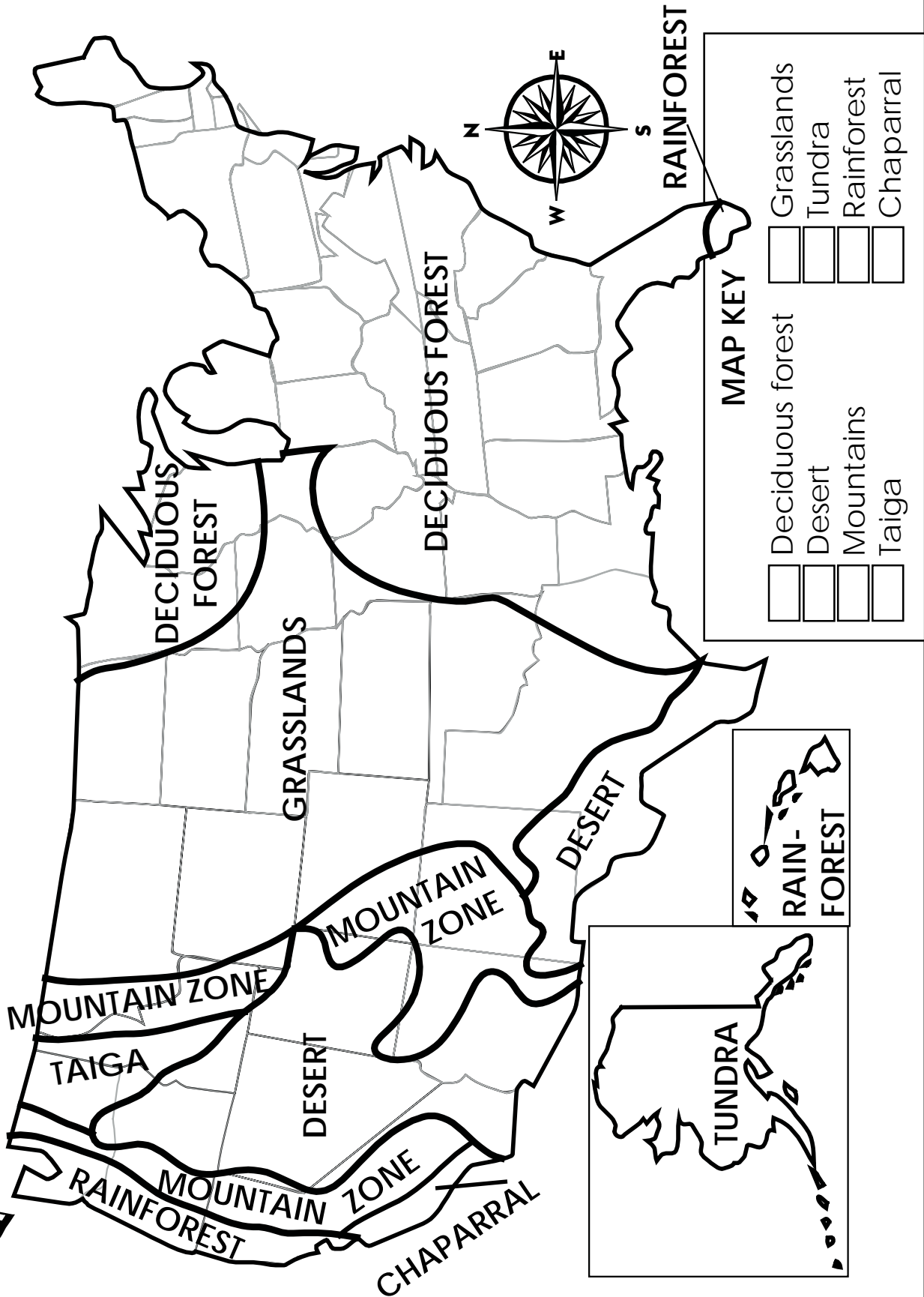
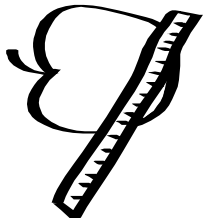
A Biome for Every Home

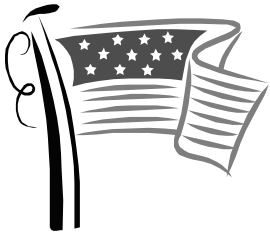


MAP KEY

- | | | | |
|--------------------------|------------------|--------------------------|------------|
| <input type="checkbox"/> | Deciduous forest | <input type="checkbox"/> | Grasslands |
| <input type="checkbox"/> | Desert | <input type="checkbox"/> | Tundra |
| <input type="checkbox"/> | Mountains | <input type="checkbox"/> | Rainforest |
| <input type="checkbox"/> | Taiga | <input type="checkbox"/> | Chaparral |

A Biome for Every Home/Teacher Key





Arkansas Quarter Reverse

