

4: Patterning in the Pacific

Based on the American Samoa quarter reverse



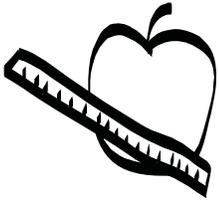
OBJECTIVE

Students will identify, understand, and create simple patterns.



MATERIALS

- 1 overhead projector (optional)
- 1 overhead transparency (or photocopy) of the following:
 - "American Samoa Quarter" page
 - "United States and Territories Map" from the Resource Guide
 - "American Samoa Map"
 - "American Samoan Symbols" worksheet
 - "Classroom Symbols" worksheet
- Copies of the following:
 - "American Samoa Quarter" page
 - "United States and Territories Map" from the Resource Guide
 - "American Samoan Symbols" worksheet
 - "Classroom Symbols" worksheet
- 1 copy of a text (or some pictures) that gives information about American Samoa, such as:
 - *Pacific Islands* by Katherine Kristen and Kathleen Thompson
 - *Territories and Possessions* by Thomas G. and Virginia L. Aylesworth
 - *Puerto Rico and Other Outlying Areas* by Michael Burgan
- 1 copy of a text that gives information about patterns, such as:
 - *Pattern (Math Counts)* by Henry Arthur Pluckrose
 - *Pattern Fish* by Trudy Harris
 - *Patterns* by Sara Pistoia
- Chart paper
- Markers
- Construction paper (8½ X 11)
- Scissors
- Glue
- Pencils
- Crayons



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PREPARATIONS

- Make an overhead transparency (or photocopy) of each of the following:
 - “American Samoa Quarter” page
 - “United States and Territories Map” from the Resource Guide
 - “American Samoa Map”
 - “American Samoan Symbols” worksheet
 - “Classroom Symbols” worksheet
- Make copies of each of the following:
 - “American Samoa Quarter” page (1 per student)
 - “United States and Territories Map” from the Resource Guide (1 per student) (optional)
 - “American Samoan Symbols” worksheet (1 per student)
 - “Classroom Symbols” worksheet (1 per student)
- Locate a text or pictures that gives information about American Samoa (see examples under “Materials”).
- Locate a text that gives information about patterns (see examples under “Materials”).
- Cut out the boxes of symbols on the “American Samoan Symbols” overhead transparency prior to Session 2.
- Create first three examples of classroom symbols from class-generated list (Session 1) to model and use in Session 3.



GROUPINGS

- Whole group
- Individual work



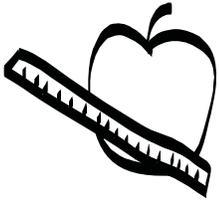
CLASS TIME

Three 20- to 30-minute sessions



CONNECTIONS

- Mathematics
- Language Arts
- Social Studies



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TERMS AND CONCEPTS

- Quarter
- Symbol
- Atoll
- Coral
- Obverse (front)
- Territory
- Pattern
- Reef
- Reverse (back)
- Island
- Volcano



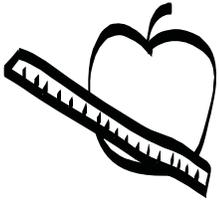
BACKGROUND KNOWLEDGE

Students should have a basic knowledge of maps.

STEPS

Session 1

1. Discuss the term “symbol” with the students. Define a symbol as a printed or written sign or picture that reminds people of something else. Write the definition on chart paper. Discuss some symbols the students are already familiar with within the classroom as well as what those symbols represent (for example, the American flag stands for the United States, the school mascot represents the school, a bathroom sign indicates a bathroom). Record student responses on chart paper.
2. Ask the students to think of some symbols of the United States of America. Encourage responses like flag, eagle, and Statue of Liberty.
3. Explain to the students that the United States is made up of fifty states, the District of Columbia (the capital city), and five territories. When defining “US territory” (lowercase “t”) for your students, the United States Mint recognizes and uses the Department of the Interior’s definitions found at www.doi.gov/oia/Islandpages/political_types.htm. Add a definition to the chart paper.
4. Display the “United States and Territories Map” and the “American Samoa Map” overhead transparencies. Note the territories’ positions in relation to your school’s location and color them yellow.
5. Describe the District of Columbia and United States Territories Quarters Program for background information, if necessary, using the example of your own state’s or territory’s quarter. Then display the transparency or photocopy of the “American Samoa Quarter” page, mentioning that an image must be specially chosen to be on a quarter. Tell the students that the back of a coin is called the reverse, and “obverse” is another name for the front. Locate American Samoa on the overhead transparency and the classroom map. Note its position in relation to your school’s location.
6. Tell the students that American Samoa is made up of five volcanic islands and two coral atolls. On chart paper, create a diagram of American Samoa, including the volcano, atoll, coral reef, and lagoon. Define an island as land surrounded entirely



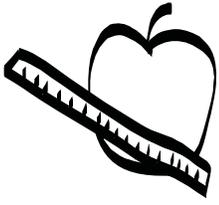
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by water. Add the definition to the chart paper and label an island on the diagram. Define an atoll as a coral island and reef that surrounds a lagoon. Add the definition to the chart paper and label an atoll on the diagram.

7. Introduce the students to the selected text or pictures on American Samoa. Preview the text and illustrations and allow the students to generate observations about American Samoa.
8. Read the selected text. During the reading, attend to any unfamiliar vocabulary.
9. After the reading, review the image on the coin. Ask the students why they think the images may have been chosen for the coin.
10. Explain that the symbols on the coin represent things that are important to the people of American Samoa. Explain that the palm tree and coastline represent the islands of American Samoa. The ava bowl (also called a tanoa) is used to make the special ceremonial drink for the chiefs and guests during important events. The whisk and staff represent the rank of the Samoan orator, or speaker, and are used when he delivers speeches during cultural events.
11. Distribute an “American Samoa Quarter” page to each student. Have the students color the symbols and write a word next to each one to show what the symbol represents.
12. Review and collect the students’ worksheets.

Session 2

1. Review the “American Samoa Quarter” page and information from Session 1.
2. Introduce the students to the selected text on patterns. Preview the text and illustrations and allow the students to generate observations about patterns.
3. Read the text. During the reading, attend to any unfamiliar vocabulary.
4. After the reading, discuss patterns. As an example, give the sequence red, yellow, red, yellow, red, yellow, and ask which color would come next. Then ask about patterns the students may know. Record their responses on chart paper. Then label them as a class “ABABAB.” Explain this as a way to label patterns.
5. Display the “American Samoa Quarter Reverse” overhead transparency from the previous session. Review the symbols on the coin.
6. Explain to the students that they will now be making patterns as a class using the symbols from the coin. Remind the students that, in order for a group to be considered a pattern, its unique parts need to repeat at least two times.
7. Display the previously cut out parts of the “American Samoan Symbols” overhead transparency.
8. As a class, create patterns using the transparency symbols and then verbally



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label them ABABAB. Then demonstrate and practice a variety of patterns (such as ABAB, ABBABB, AABAAB, or AABBAABB).

9. Distribute an “American Samoan Symbols” worksheet and a piece of construction paper to each student. Tell the students that now they are going to practice some patterns on their own.
10. Allow the students enough time to complete this activity.
11. After the students are done, allow them to glue one of their patterns onto the paper.
12. Review and collect the pattern papers.

Sessions 3

1. Review the previous sessions and discussions on symbols and patterns. Review the classroom symbols chart from Session 1.
2. Explain to the students that they will be making their own patterns using some of those symbols. Remind them that a pattern needs to repeat itself at least two times.
3. Distribute a “Classroom Symbols” worksheet and piece of construction paper to each student. Remind them to label their patterns.
4. Allow an appropriate amount of time for the students to complete this activity.
5. As a class, review the patterns and display them appropriately.



ASSESSMENT

- Take anecdotal notes about the students’ participation in class discussions.
- Evaluate the students’ worksheets for understanding of the lesson objectives.



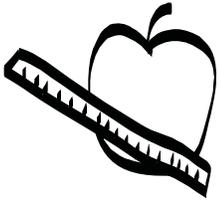
ENRICHMENTS/EXTENSIONS

- Have students color their patterns maintaining the AB pattern with their coloring.
- Have students use the American Samoan symbols to create more complex patterns.
- Have students research other territories of the United States. Have them create symbols for each of these territories as well.
- Have students create a physical pattern as a class.

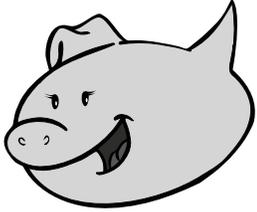


DIFFERENTIATED LEARNING OPTIONS

- Allow students to work in pairs.
- Provide students with a copy of the “Classroom Symbols” worksheet with the first two symbols already chosen for them.



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CONNECTION TO WWW.USMINT.GOV/KIDS

- Have students learn more about symbols with the Oklahoma quarter lesson plan at www.usmint.gov/kids/teachers/lessonPlans/50sq/2008/_k01-1.pdf.
- Have students learn more about the United States Territories by using the 2009 quarter lesson plans at www.usmint.gov/kids/teachers/lessonPlans/.

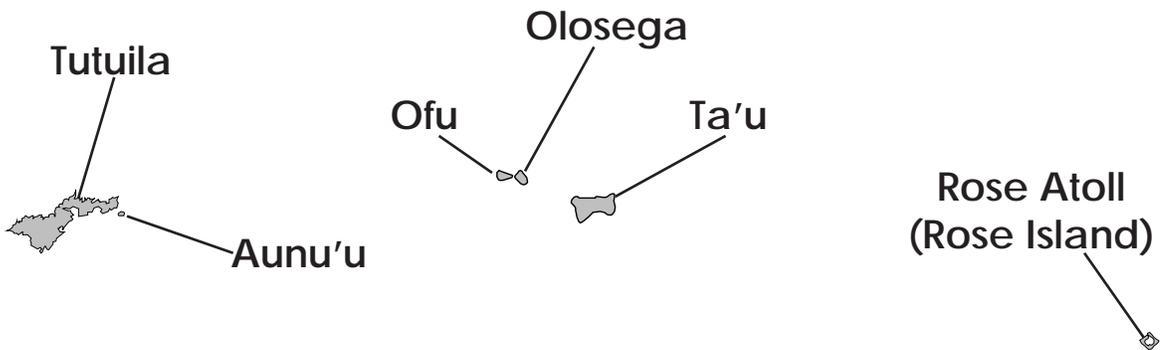


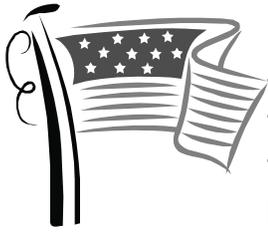
American Samoa Map



Swain's Island

South Pacific Ocean

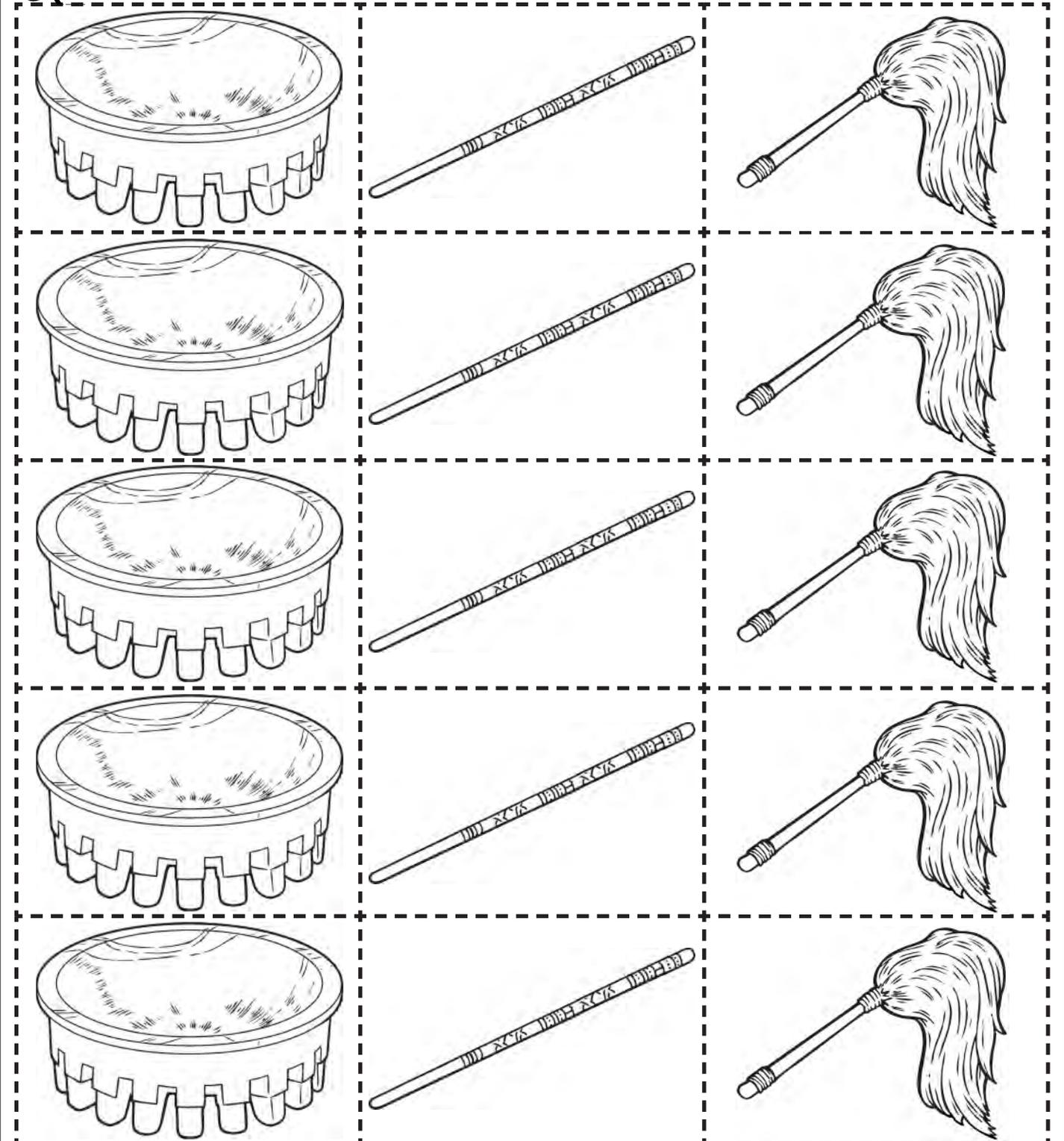




Name _____

American Samoan Symbols

Directions: Cut out the symbols and use them to create an AB pattern. Remember to repeat the pattern two times.





Name _____

Classroom Symbols

Directions: Draw classroom symbols from the chart inside the boxes. Cut out the symbols and create an AB pattern on another piece of paper. Remember to repeat the pattern two times and to label your pattern.





American Samoa Quarter

