Relying on the Desert: Plants Used by the Hohokam

Students will learn the ways in which the Hohokam people used natural resources to survive in a desert environment.

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Grade Level: 3
Duration: 1 class period

Overview

The prehistoric Hohokam Indian civilization flourished in the Sonoran Desert of Arizona and Mexico for hundreds of years. They were able to survive because they used the natural resources of the desert to satisfy their basic needs.

Purpose

In this lesson students will learn the ways in which the Hohokam Indians used natural resources to survive in a desert environment through creating a bar graph.

National Geography Standards

ELEMENT FIVE; ENVIRONMENT AND SOCIETY
15. How physical systems affect human systems.

Arizona Geography Standards

CONCEPT 3 Physical Systems
Science Strand 4
Concept 3
Explain the relationships among plants and animals in different environments.

CONCEPT 5
Environment and Society
GRADE 3
PO 1 Identify ways in which humans depend upon, adapt to, and impact the earth.

Arizona Math Standards

Mathematics Common Core Standards
Measurement and Data
3.MD.3. Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.

Standards for Mathematical Practice

ELA Common Core Standards
Reading
Informational Text
Key Ideas and Details
3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.
3.RI.3 Describe the relationship between a series of historical events, scientific ideas or concepts, or steps in technical procedures in a text, using language that pertains to time, sequence, and cause/effect.

Materials

- People Live in the Desert by Belle Perez
  ISBN 0-7922-8717-1 National Geographic Society, Windows on Literacy
- Ancient High Cultures of the Southwest map
- Student reading – The Hohokam
- Student worksheet
- Student worksheet answer key

Objectives

Students will be able to:
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1. Locate the areas of residence of the Hohokam Indians on a map of the Southwest U.S.
2. Identify the various desert resources used by the Hohokam and explain how they were used.
3. Make and label a bar graph showing the use of three desert plants by the Hohokam.

Procedures

Students should have experience in constructing and reading a bar graph.

1. Read and discuss the book, People Live in the Desert, by Belle Perez. This National Geographic Window on Literacy book explores ways in which people have adapted to living in the desert. A similar book may be used if this book is not available.

2. Locate the area of residence of the Hohokam Indians on the Ancient Cultures of the Southwest map.

3. Identify this area as being in the Sonoran Desert. Discuss the Sonoran Desert environment (i.e., hot, dry, plant life, animal life).

4. Brainstorm ways in which the Hohokam might have been able to survive in this desert environment.

5. Have students read the article "The Hohokam" included in the lesson.

6. Review the elements of a bar graph. Have students answer the questions on the student worksheet using the Hohokam article.

7. For closure, review the ways in which the Hohokam used desert plants to satisfy their basic needs.

Assessment

Student achievement can be assessed using the Student Worksheet. It is a combination of short answer and multiple-choice questions. Geography can be assessed using questions 1-4. Math can be assessed with the bar graph and questions 6-9. A score of 80% or higher is considered mastery.

Extensions

Students can etch a shell as the Hohokam did, using modern materials. Paint a design on a shell with finger nail polish as the Hohokam did with Mesquite tree pitch. Then soak it overnight in vinegar. The Hohokam used saguaro cactus juice for this. Rinse the shell and the design will be etched in the shell.

Students can use their tally graph to make a bar or pictograph with labels and a title.

This pop-up book shows how people, including the Hohokam, lived in the southwest for thousands of years.

Sources

Two books that give information to go with the lesson are:
The Hohokam Southwest Parks and Monument Association Tucson, Arizona ISBN 111-877-85637-1


For more information about the Hohokam Indians see:
www.swirc.org/history/hohokam/html
Relying on the Desert: Plants Used by the Hohokam

Or:
www.fs.fed.us/r3/coronado/scrd/nathist/heritage/hohokam.htm

For information about the Sonoran Desert environment, see this NASA educational site:
http://www.cotf.edu/ete/modules/msese/earthsysflr/desert.html
http://www.cotf.edu/ete/modules/msese/earthsysflr/desertA.html
http://www.cotf.edu/ete/modules/msese/earthsysflr/desertP.html