

Relying on the Desert: Plants Used by the Hohokam

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Grade Level 3
Duration 1 class period

National Standards

GEOGRAPHY

Element Five; Environment and Society

15. How physical systems affect human systems.

AZ Standards

MATHEMATICS

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.

Standards for Mathematical Practice

3.MP.4. Model with mathematics.

ELA

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.

Arizona Social Science Standards

GEOGRAPHY

Human-environment interactions are essential aspects of human life in all societies.

3.G2.1 Explain how people modify and adapt to the Arizona environment. Key concepts include but are not limited to modification and adaptation of the environment by Paleo-Indians, Prehistoric-Indians, explorers, settlers, farmers, immigrants, migrants, and the 22 Arizona Indian Nations, and the use of Arizona’s natural resources.

Overview

The prehistoric Hohokam civilization flourished in the Sonoran Desert of Arizona and Mexico for hundreds of years. These people 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 used natural resources to survive in a desert environment through creating a bar graph.

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
- The Hohokam
- The Hohokam Student Worksheet and Answer Key

Objectives

Students will be able to:

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 interpret 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.

Note: this lesson uses the term Hohokam for the Ancestral People of the Sonoran Desert. In some materials produced by the National Parks Service, Hohokam should be used as a term for the culture of this time period and not a name for the people. It is your choice to use Hohokam or Ancestral People of the Sonoran Desert throughout this lesson and its materials.

Relying on the Desert: Plants Used by the Hohokam

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 Hohokam. Distribute The Hohokam Student Worksheet and have students answer questions 1-4 either in partners or independently.
6. Before students begin question 5, review the elements of a bar graph. Have students refer to The Hohokam reading and create the bar graph and then answer questions 6-9.
7. For closure, review the ways in which the Hohokam used desert plants to satisfy their basic needs or have students generate a list of what satisfies their basic needs today and where do these things come from.

Assessment

ELA, Mathematics, and Geography

Student achievement can be assessed using the Student Worksheet. 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 instead of vinegar. Rinse the shell and the design will be etched in the shell.

- Share the book: *Ancient Dwellings of the Southwest*. Western National Parks Association. 2004 ISBN 1-58369-048-4 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

Wild Foods of the Sonoran Desert Arizona Sonora Desert Museum Press, Tucson, Arizona ISBN 1-886679-03-7

For more information about the Hohokam Indians see:

<http://phoenix.gov/recreation/arts/museums/pueblo/about/visitorinfo/materials/desertfarmers.html>
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/mseese/earthsysflr/desert.html>

<http://www.cotf.edu/ete/modules/mseese/earthsysflr/desertA.html>

<http://www.cotf.edu/ete/modules/mseese/earthsysflr/desertP.html>