



The Seed and the Giant Saguaro

Students learn about plant and animal habitats of Arizona.

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Grade Level 1
Duration 3-4 class periods

National Geography Standards

ELEMENT TWO: PLACES AND REGIONS

4. The physical and human characteristics of places.

Arizona Social Studies Standard

Grade 1 Strand 4 Geography Concept 2. Places and Regions

PO 2. Discuss physical features (i.e., mountains, rivers, deserts) in the world.
PO 3. Recognize through images (i.e., Egypt, Arizona, local community) have distinct characteristics
Concept 3. Physical Systems (Science Strand 4 Concept 3)
Identify, compare and describe plants and animals in various habitats..

Arizona Language Arts Standards

READING STANDARD

Grade 1

Strand 1 Reading Process

Concept 6 Comprehension Strategies

PO 2 Derive meaning from books that are highly predictable, use repetitive syntax, and have linguistic redundancy.

Strand 3 Comprehending Informational Text

Concept 1 Expository Text

PO 1 Identify the topic of expository text, heard or read.

PO 2 Answer questions (e.g., who, what, where, when, why, how) about expository text, heard or read.

WRITING STANDARD

Grade 1

Strand 2 Writing Elements

Concept 1 Ideas and Content

PO 1 Write stand-alone text that expresses a clear message.

PO 2 Incorporate details in pictures and text.

Overview

For most Arizona students, the desert is their environment. This lesson provides a glimpse into what is the habitat of the Sonoran Desert. Once the student understands the habitat of the desert, they can then explore habitats new to them.

This lesson uses *The Seed and the Giant Saguaro* by Jennifer Ward, Governor Napolitano's book selected for first graders for school year 2006-2007.

Purpose

This lesson uses the children's book *The Seed and the Giant Saguaro* to teach about plant and

wildlife habitat in the Sonoran Desert. It includes story reading, discussion, a field experience, writing and drawing.

Materials

- *The Seed and the Giant Saguaro*. Written by Jennifer Ward. 2003 Rising Moon. ISBN 978-0-87358-845-4 Hardcover, 0-87358-845-2 Soft Cover
- Chart paper and markers
- Three pictures of different habitats that include plants and animals
- Clip Boards for each student (optional)
- Drawing paper
- Writing paper
- Pencils

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- Crayons or colored pencils
- Landform Regions of Arizona map showing plateau, mountain, and desert
- Overhead of The Sonoran Desert map (optional)

Objectives

The student will be able to:

- Define habitat.
- Define a desert.
- Describe saguaro and the habitat in which they live.
- Write a sentence about the habitat a saguaro lives.
- Draw a picture of the habitat a saguaro lives in.

Procedures

Background Information for the Teacher

The Sonoran Desert covers more than 100,000 square miles, ranging across northwestern Mexico into a large portion of southern Arizona. Although rugged, very hot and dry, it is a living desert. Rain falls during two rainy seasons each year. The summer rains come in the form of violent thunderstorms. Winter brings gentler storms and contribute to the approximately 7 to 10 inches of rain it receives in a year. This life giving water supports plants and animals which have adapted to survive and thrive in an environment which can go many months with no rainfall at all.

The saguaro only grows in the Sonoran Desert of southwestern North America where the weather is hot and dry. The saguaro may start out small as a seed, but can grow very tall. After one hundred and fifty years, a saguaro might be fifty feet tall. A saguaro starts growing arms after it is seventy years old.

The saguaro grows white, waxy flowers at its top and on the tips of its arms in the months of May and June. Just in time for the rainy season, a green fruit will grow where the flower once was. As it ripens, the fruit turns bright red and splits open to show 2000 to 4000 seeds of which only one or two might become a new saguaro.

SESSION ONE

Introduction

1. Write the lesson objectives (Define habitat. Define desert.) on the board. Assign each student a partner.
2. Introduce the term *habitat* to the students. Explain that the class will be learning about

habitats. These are places where plants and animals find everything they need to live. On a chart pad write the four components of a habitat: *food, water, shelter, and space*. Read and review the meaning of each using student friendly definitions. Choral read the words with the group, followed by calling on a few students at random to read.

3. Show students pictures of different types of habitats. Choose one to use as a model and identify the four elements. Using a second picture tell students to look at it and describe the space in the picture to their partner. Call on three or four students at random to share their answers. Follow this procedure with the other three elements of habitat. Ask them to identify any plants or animals they may see in the picture. Repeat the procedure with a third picture.

4. Identify for students the type of environment in which they live. Provide a definition of the word *desert*. (***A desert is a place that receives less than 10 inches of rain a year.***) Show them a ruler and point out 10 inches on it. Explain that there are some areas in the world that receive more than 400 inches in a year like some spots in Hawaii. Remind them of the four components of habitat and water is one of them. Ask students to discuss with their partner each of the elements of their desert habitat. Call on students at random to share descriptions.

SESSION TWO

Field Experience

1. Review with students the elements of habitat.
2. Explain to the students that they are going on a nature walk around the school grounds. They will be asked to work with a partner to identify the four elements of habitat and look for evidence of plants and animals that live in that habitat. Provide students with paper, pencil and clipboards to write about and illustrate what they see.
3. Upon returning from the school yard field trip, assign students to groups of 6-8 students. Instruct students to share what they found with their group, doing one element at a time. When all students have shared in their group, call on 4 or 5 individuals to share with the class what they observed for each of the four elements.

SESSION THREE

Story Reading

1. Present the chart pad with the four elements listed. Review with the class the definition of *habitat* and each of the four elements

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2. Explain to the students that they are going to be listening to a story about a plant called a *saguaro* which lives in Arizona. Using the information in the background section of this lesson plan and that which is found in the back of the book, provide a description of this plant. Ask students if they have seen a saguaro.

3. Instruct students to share with their partner what they know about a saguaro. Call on 4 or 5 students at random to share their answers.

4. Introduce the map of Arizona. Explain to the students that this is a political map because it shows where cities or communities are located. It also shows where the three different habitats are found.

5. Help the students locate their community on the map. Ask them if they think they live within the saguaro habitat. Ask them to explain why or why not, including whether they have seen saguaro in the area where they live.

6. Introduce and read the story *The Seed and the Giant Saguaro* by Jennifer Ward.

7. Tell the students that you are going to read the story a second time. Then, ask them to look and listen for the four elements of the saguaro's habitat. Explain that when they identify one of the elements, they are to show you a hand signal. Model and practice with the class what hand signal you want them to use.

8. Read the story again. Stop reading when students give you a hand signal and ask them to identify the habitat element.

9. At the conclusion of the story instruct students to summarize what they have learned about the saguaro's habitat with their partner. Refer back to the chart and call on several students at random to identify and describe the elements of the saguaro's habitat. Record answers on the chart pad.

SESSION FOUR Synthesis Activity

1. Read the story a third time.

2. Explain to the students that they will share what they have learned about saguaro through drawing and writing.

3. Review the elements of the saguaro's habitat listed on the chart. Explain to the students that their pictures should include all four elements. Show a sample drawing to illustrate for students

what their product should look like. Call on a few students at random to retell the instructions. Students can be encouraged to write complete sentences that describe their drawings..

4. Pass out writing and drawing materials. Tell students how much time they have to complete the assignment.

5. When students have completed the assignment, instruct them to share their pictures and writing with their partner. Call on a few students to share with the whole class. Close by calling on 4 or 5 students to describe habitat. Display student work.

Assessment

Students will correctly identify and draw a desert habitat and represent the four elements in their drawings and in their writings. Students will also correctly describe a saguaro and its habitat needs.:

Outstanding will be:

Desert is portrayed in detail.

The four elements are correctly drawn.

The four elements are described with words and at least one sentence is used.

Saguaro is portrayed in detail.

Habitat of saguaro is shown accurately.

Satisfactory will be:

Desert is portrayed.

Three elements are drawn.

Three elements are described with words.

Saguaro is portrayed.

Habitat of saguaro is shown accurately.

Needs Improvement will be:

Desert is not portrayed.

Only two elements are drawn.

Not all elements are described with words.

Saguaro is not portrayed.

Habitat of saguaro is not shown or is inaccurately shown.

Extensions

Read *Don't Call Me Pig, A Javelina Story* by Conrad J. Storad. Discuss the similarities and differences between the habitats of saguaros and javelinas. Draw attention to pictures in the books and point out the elements of habitat in each. Ask students if they know of other books that take place in a desert habitat.

The Seed and the Giant Saguaro

Ward, Jennifer, *The Seed and the Giant Saguaro*.
2003 Rising Moon. ISBN 978-0-87358-845-4
Hardcover, 0-87358-845-2 Soft Cover

Sources

Storad, Conrad J., *Don't Call Me Pig, A Javelina Story*, 1999 Resort Gifts, Unlimited, Inc. ISBN 1-891795-03-1 Hardcover, 1-891795-0105 Soft Cover