

The Seed and the Giant Saguaro

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| Author | Marjorie Wieweck |
| Grade Level | 1 |
| Duration | 3-4 class periods |

| National Standards |
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| GEOGRAPHY Element 2: Places and Regions 4. The physical and human characteristics of places. |

| AZ Standards |
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| ELA Reading Key Ideas and Details 1.RI.2 Identify the main topic and retell key details of a text. 1.RI.3 Describe the connection between two individuals, events, ideas, or pieces of information in a text. Writing Text Types and Purposes 1.W.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure. |

| Arizona Social Science Standards |
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| GEOGRAPHY The use of geographic representations and tools helps individuals understand their world. 1.G1.1 Use, explore and construct maps, graphs, and other geographical representations to support content focus. Key concepts include but are not limited to physical features (rivers, lakes, mountains, landforms, desert) and human features (dams, cities, parks, hospitals, schools, railroad tracks, farms, factories, houses). |

Overview

For many Arizona students, the desert is their home environment. This lesson provides a glimpse into the habitat of the Sonoran Desert. Once students understand their habitat, they can compare it to environments new to them.

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* by Jennifer Ward.
- At least three pictures of different habitats that include plants and animals
- Clipboard for each student (optional)
- Drawing paper
- Crayons or colored pencils
- Landform Regions of Arizona map
- The Sonoran Desert map (optional)

Objectives

The student will be able to:

- Define habitat and desert.
- Describe a saguaro and desert habitat.

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 often 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

1. Write habitat and desert on the board. Assign each student a partner and have them define what they think these words mean to each other.
2. Have students share their definitions of habitat with the whole class. Be sure to write down the definition for habitat on the whiteboard. (**These are places where plants and animals find everything they need to live.**) Now add to the whiteboard, the four components of a habitat are 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 and explain.
3. Next show 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. Write on the whiteboard the 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

1. Review with students the definitions for habitat and desert and the four elements of a 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

1. Refer to the whiteboard with the four elements listed. Review with the class the definition of habitat and desert and each of the four elements of a habitat.
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 the information in the back of the book, provide a description of this plant. Ask students if they have ever 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. Project the Landform Regions of Arizona map. Explain where various cities are located and the three habitat regions labeled on the map.
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. Read the story *The Seed and the Giant Saguaro* by Jennifer Ward to the students while projecting the illustrations.
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 whiteboard and call on several students at random to identify and describe the elements of the saguaro's habitat. Record answers on the whiteboard.

SESSION FOUR

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 whiteboard. Explain to the students how the drawing will be graded. (See Assessment) 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 drawing materials.

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 a desert habitat. Display student work.

Assessment

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

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.

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

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