

Biomes of Arizona Big Book

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Grade Level 2-3
Duration 3 class periods

National Standards

GEOGRAPHY

Element 1: The World In Spatial Terms

1. How to use maps and other geographic representations, geospatial technologies, and spatial thinking to understand and communicate information

Element 2: Places and Regions

4. The physical and human characteristics of places

5. People create regions to interpret Earth's complexity

Element 3: Physical Systems

8. The characteristics and distribution of ecosystems and biomes on Earth's surface

AZ Standards

ELA

Reading

Key Ideas and Details

2.RI.1 Ask and answer such questions as who, what, where, and how to demonstrate understanding of key details in a text

3.RI.1 Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

Writing

Research to Build and Present Knowledge

2.W.7 Participate in shared research and writing projects (e.g., read a number of books on a single topic to produce a report; record science observations).

3.W.7 Conduct short research projects that build knowledge about a topic.

Arizona Social Science Standards

GEOGRAPHY

The use of geographic representations and tools help individuals understand their world.

2.G1.1 Use maps, globes, and other simple geographic models to identify and explain cultural and environmental characteristics of places in the world based on stories shared.

3.G1.1 Use and construct maps and graphs to represent changes in Arizona over time. Key concepts include but are not limited to locating physical features including the Grand Canyon, Mogollon Rim, Colorado River, Salt River, Gila River Key concepts include but are not limited to locating human features including major cities, counties, Hoover Dam, Roosevelt Dam, and state capital Key concepts include but are not limited to distinct physical and cultural characteristics of Arizona including landforms, the 5C's, climate zones, elevations, plants, animals, Arizona's 22 Indian Nations, diverse ethnic, racial, and religious cultures

Overview

Arizona is a land of diverse landscapes. While some students may experience travel throughout the state, not all students may be experiencing this advantage. Therefore, by researching biomes, students will know about the state in which they reside. Hopefully, this will inspire them to travel and learn even more.

Purpose

In this lesson, students will learn about the biomes of Arizona and practice map reading skills.

Materials

- 6 computers
- Poster board or chart paper
- Colored markers

- Arizona's Biomes map
https://geoalliance.asu.edu/sites/default/files/maps/AZ_biomes_web.pdf
- Arizona's Cities, with Compass Rose
<https://geoalliance.asu.edu/sites/default/files/maps/AzcitiesCompassLatLong.PDF>
- PowerPoint of Arizona's Biomes
- Biomes Research worksheet
- Scoring Guide for Big Book Page
- Biomes of Arizona Assessment

Objectives

The student will be able to:

1. locate and describe Arizona biomes.
2. conduct a research project

Procedures

Prerequisite Knowledge: Students must know how to read a legend on a map. A good lesson for learning the elements of a map is TOADS
<https://geoalliance.asu.edu/toads> A good lesson

for learning how to create and read legends is *Dog Parks: The Urban Way to Walk Your Dog*
<https://geoalliance.asu.edu/sites/default/files/LessonFiles/Sepp/DOG/SeppDogS.pdf>

SESSION ONE and TWO

1. Display the Arizona's Biomes map and list the 6 biomes found on the map on the whiteboard. Introduce the lesson by having the students repeat the names of the six biomes after you read them.
2. Explain how Arizona is a wonderful state because it has all of these different kinds of climate which means there is a wide variety of landscapes. This means there are lots of kinds of plants and animals. And if you want snow, Arizona will have snow in the winter. If you want hot days, Arizona has those too.
3. Look back at the whiteboard and ask if students know any facts about the six biomes listed. It can be plants or animals that live there. It can be what the temperatures might be in the winter or the summer. Write down correct student responses under the biomes mentioned.
4. Show the PowerPoint of Arizona's Biomes that includes images for the six biomes. Have students identify what they see in the images. Add to the whiteboard correct student responses.
5. Divide the students into six groups. Assign or allow them to select which of the six biomes they will explore (just make sure all six biomes are covered). Groups can be divided into roles: computer persons, readers, writers, artists, etc.
6. Model how to search for the biomes with a search engine. Slides 9 and 10 of the PowerPoint give some suggestions for beginning their research.
7. Distribute the Biomes Research worksheet, the Arizona's Biomes map and the Arizona's Cities map. Explain that each group should look on the internet for animals and plants that live in their assigned biome, what the land is like, and what kinds of temperatures (climate) the biome has. They will fill in their Biomes Research worksheet with this information.
8. Then they should use the maps to find where their biome is located and the Arizona cities in their biome. They will write that on the Biomes Research worksheet as well.
9. Then they should get drawing paper and create several images that illustrate their biome's physical features. Or as an alternative, they can print several images found online.

SESSION THREE

1. Distribute chart paper or poster board to each group. Instruct each group to create a page in the class big book that will show what they learned about their biome. Each page (biome) will have the Arizona's Biomes map in the center. Then the students will add the facts about the temperatures, cities, plants and animals or any fun facts around the Arizona's Biomes map.
2. When the groups are finished, the pages will be assembled into a big book.
3. Have each group share their page of the big book with their classmates.

Assessment

ELA and Geography

The Biomes Research worksheet can be graded for accuracy and completeness. Mastery will be considered 80% or higher.

The Biomes of Arizona Assessment can be given to test for knowledge of what each biome is like. Mastery will be considered 80% or higher on the test.

Big book page can be graded using the Scoring Guide for Big Book Page. Mastery will be considered 80% or higher of the points possible.

Extensions

Students can continue to research Arizona biomes and add to the big book.

Students can identify biomes in stories read and compare them to Arizona.

Sources

Tundra

<https://askabiologist.asu.edu/anatomy-tundra> (Be sure to look at the Read More About)

Forest

<https://askabiologist.asu.edu/explore/temperate-forest> (Be sure to look at the Read More About)

Woodland

https://www.desertmuseum.org/visit/exhibits_mountainwoodland.php

Chaparral

<https://www.conserve-energy-future.com/chaparral-biome.php>

Desert Grassland

https://www.desertmuseum.org/visit/exhibits_desertgrassland.php

Desert (Be sure to look at the Read More About)
<https://askabiologist.asu.edu/plants-desert>