

Sandscapes to Landscapes

Adapted from "Landscape Sandbox Geography" by Karyn Madsen,
Utah Geographic Alliance

Author	Jeannine Kuropatkin
Grade Level	6-7
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 3: Physical Systems

7. The physical processes that shape the patterns of Earth's surface

AZ Standards

ELA

Language Vocabulary Acquisition and Use

6.L.6 and 7.L.6 Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

Arizona Social Science Standards

GEOGRAPHY

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

6.G1.1 Use and construct maps, graphs, and other representations to explain relationships between locations of places and regions. Key concepts include major landforms and water bodies, countries, cities, ecosystems, climate, languages, religion, economic systems, governmental systems, population patterns, disease, trade routes, and settlement patterns

7.G1.1 Use and construct maps and other geographic representations to explain the spatial patterns of cultural and environmental characteristics. Key tools and representations such as maps, globes, aerial and other photos, remotely sensed images, tables, graphs, and geospatial technology

7.G1.2 Analyze various geographic representations and use geographic tools to explain relationships between the location of places and their environments.

Overview

"Seeing the world in spatial terms" is a prerequisite skill for recognizing and understanding the signature relief patterns that sculpt Earth's surface. The physical lay of the land inherently defines the natural flavor and feel of a place. Today's student needs to experience a variety of physical landscapes to fully appreciate the forces that shape our planet and our perceptions of place.

Purpose

This lesson is designed to help students kinesthetically 1) examine a variety of physical landforms and 2) create a unique piece of the Earth's terrain that is "anatomically correct."

Materials

- Colored Pencils
- Atlases or world maps or computer access
- Empty cardboard boxes
- Garbage can liners, kitchen size (preferred color of blue)
- Bag(s) of sand
- Spray bottles filled with water
- Paper towels
- Small baggies
- Labels for Groups A and B--laminated, cut out, attached to a toothpick, and put in baggies
- Instruction Sheets for Groups A and B
- Vocabulary Worksheet and answer key
- Vocabulary Test and answer key

Objectives

The student will be able to:

1. Match landforms and bodies of water to their definitions
2. illustrate each landform and body of water.
3. identify and locate on a map, three examples of each physical feature.

Procedures

Prior to the Lesson: The boxes of sand need to be prepared ahead of time for SESSION TWO. Line the cardboard boxes with garbage can liners before you add the sand. Add water as needed to reach a consistency that allows sand to be formed into landscapes. Use the spray bottle to keep sand damp between uses.

SESSION ONE

1. Distribute the Vocabulary Worksheet. Allow students to pair up and use dictionaries to correctly match the definitions to the correct physical geography landform or water body.
2. Have students use a computer, world atlas, or world map to locate three actual examples of these water bodies/landforms.
3. Have the students then draw an illustration of the landform/body of water from images they have seen from their reference tools.

SESSION TWO

4. Divide students into groups of three.
5. Distribute the Group A instruction sheet to half of the groups and the Group B instruction sheet to the other half of the groups.
6. Explain the instructions. Have each student take out the Vocabulary Worksheet from yesterday and review the terms they see on their group's instruction sheet.
7. Each group will then receive a baggie with the appropriate labels for their group (A or B) and a box of sand.
8. Builders will create an original sandscape showing all of the landforms/water bodies on their instruction sheet. While "under construction" the builders can use the labels to temporarily label their various physical features.
9. When the physical features are completed in the sand, remove the labels and give them to the group's teacher.
10. Have a Group A builders switch with Group B builders. The teachers stay with their original group.

11. The teacher's task is to teach the partner group about the landforms/water bodies represented in the sand.

12. The partner group will then use the labels to identify the landforms/water bodies in the sandscape. The teachers will then assess their success.

13. Allow time for cleanup—smooth over the sand and clean up any loose sand.

SESSION THREE

14. Distribute Vocabulary Test and allow students time to complete the assessment.

Assessment

ELA and Geography

Students will show mastery by completing the Vocabulary Test with a score of 80% or higher.

Vocabulary Worksheets can be graded for accuracy in matching, appropriate illustration, and three good examples. Mastery will be considered a score of 80% or higher.

Extensions

1. Students could create customized name labels for their sandscape terrains, then via oral presentation, take the class on a tour of their "little piece of the Earth" explaining the origination of place names.
2. A class discussion of Arizona toponyms (place names) could be held. What are toponyms and what toponyms do they know?
<https://www.azcentral.com/story/travel/arizona/2018/10/10/weird-arizona-place-names/1565426002/>
<http://arizonaoddities.com/2009/10/arizona-place-names-a-slew-of-cities-and-counties-with-spanish-indian-and-random-origins/>
3. If a computer lab is available, students could download and print off illustrations for the Vocabulary Worksheet instead of drawing them.

Sources

Definitions from Geographical Terms (Landforms and Water Body) desk top maps produced by Rand McNally.