√GE◉MATH

Identifying Land and Water from Postcards

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Grade Level	K
Duration	3 class periods

Adapted from a lesson by Susan Nixon

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.
Element 3: Physical Systems
8. The characteristics and distribution of ecosystems and biomes on Earth's surface

AZ Standards

MATHEMATICS
Counting and Cardinality
K.CC.A.1. Count to 100 by ones and by tens.
K.CC.A.3. Write numbers from 0 to 20. Represent a number of objects with a written numeral 0–20 (with 0 representing a count of no objects).
K.CC.B.5. Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1–20, count out that many objects.
K.CC.C.6. Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group, e.g., by using matching and counting strategies. (Include groups with up to ten objects)
Measurement and Data
K.MD.A.2. Directly compare two objects with a measurable attribute in common, to see which object has "more of" or "less of" the attribute and describe the difference.
K.MD.3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.
Standards for Mathematical Practice
K.MP.4. Model with mathematics.

Arizona Social Science Standards

GEOGRAPHY
The use of geographic representations and tools help individuals understand their world.
K.G1.1 Use, explore, and construct maps, graphs and other geographical representations to support content focus.
K.G1.2 Explore locations in stories shared.

Overview

Images such as postcards can give students information about other places and regions. This information allows students to visualize places and regions new to them.

Purpose

In this lesson, students will be able to identify land and water using postcards from various places around the country. They can also compare their environment to those in the images.

Materials

- A variety of postcards or images from locations in the United States
- US map (with state names) for each student and one to project
  https://geoalliance.asu.edu/sites/default/files/maps/US-NAMES.pdf
- My Postcards worksheet
- Assessment and Questions and Answer Key
- Crayons

Objectives

The student will be able to:

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1. Locate states on a U.S. map.
2. Count up to 20.
3. Categorize items into two groups.
4. Identify land and water in images.

Procedures

Prerequisite Knowledge: Students have learned that water is blue and land is often shown as brown on a physical map.

SESSION ONE

1. Distribute copy of US map to each student. Project copy of same map on projection device.
2. Discuss where Arizona is in relation to other states around it. Have children locate Arizona on this map. Have students circle the name of Arizona in red.
3. Bring out an assortment of 15-20 postcards from 3-4 states. Project the postcards one at a time and help students locate the states from which the postcards were sent.
4. On their maps, have them make a mark (i.e., an x--a tally mark) for each postcard from a particular state.
5. When all postcards have been marked on the maps, begin to formulate questions with students. Some possible math questions are:
   - What state had the least postcards?
   - What state had the most postcards?
   - Were there states that had an equal number of postcards?

SESSION TWO

6. Divide the students into groups of three. Give each group 6 postcards and a blue and brown crayon. Distribute the My Postcards worksheet. Remind students how blue on a physical map often shows water and brown often shows land. Use these colors as we count which postcards show water in the picture and which postcards show land in the picture.
7. Model with several projected postcards how to look for land and water in the images and color in the graph/boxes.
8. Once students have finished the My Postcards worksheet, ask the students to compare the two categories (land or water) and determine which had more (land or water).

SESSION THREE

9. Allow each student to select one of the postcards. Explain that they are going to compare their home (environment) to this image in the postcard. Model how to fold a piece of paper in half (like a hamburger) and draw an image from the postcard on the left side. Then have them compare this to home by drawing an illustration that represents their environment.

Assessment

Geography
Student maps can be graded for correctness of X's marking the states represented on the postcards. Mastery is 80% or higher.

Comparison drawing can be graded for appropriate images, neatness, and completeness. A score of satisfactory is a completed and accurate picture of both environments. Images can be labeled if student can express the labels in words.

Geography and Mathematics
My Postcards worksheet can be graded for accuracy in tallying the land and water found in the postcards. Mastery is 80% or higher.

Mathematics
The Assessment and Questions can be graded for accuracy. Mastery is considered a score of 80% or higher.

Extensions

As students are looking at the various postcards, have them begin to learn the geographic terms such as mountain, river, desert, hill, lake, and ocean.

Students can create a postcard of Arizona and send it to someone in another state and ask that the person receiving the postcard send back a postcard from their state.

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