

Graph Those Continents!

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Grade Level	K
Duration	2 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
2. How to use mental maps to organize information about people, places, and environments in a spatial context.

AZ Standards

MATHEMATICS

Counting and Cardinality

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.B.3. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (Limit category counts to be less than or equal to 10).

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 geographic representations to support content focus. Key concepts include but are not limited to graphing local weather and mapping the classroom.
- K.G1.2 Explore locations in stories shared.

Overview

Students have limited knowledge about where toys, animals, and foods originate. It is important that they learn that many of our favorite things come from around the world.

Purpose

In this lesson students will use numerical operations and graphing skills to organize and formulate questions based on objects from the seven continents. Students will then realize that commonplace items come from a variety of regions.

Materials

1. World Map to be assembled into a large poster-sized version
https://geoalliance.asu.edu/sites/default/files/maps/World_tilemap.pdf
2. World Map (continents labeled)
https://geoalliance.asu.edu/sites/default/files/maps/World_Continents.pdf
3. World Map (continents unlabeled)
https://geoalliance.asu.edu/sites/default/files/maps/World_Continents_blank.pdf
4. Scissors and tape/glue
5. Large chart paper or white board space
6. Around the World Object Key
7. Graphing the Seven Continents worksheet
8. Continent nameplates
9. Images for World Map and Graphing activities (large and small)

Objectives

The student will be able to:

- Locate the seven continents on a map and organize pictures using the names of these continents.
- Recognize that toys, foods and animals come from other areas in the world.
- Solve numerical problems by organizing pictures according to geographic origin.
- Construct a graph using pictures of objects from the seven continents.

Graph Those Continents!

- Interpret data based on the graph constructed by the class.

Procedures

Background Knowledge: Students have been introduced to a world map and the seven continents. Prior to Class: Assemble the World map.

SESSION ONE

1. Have the class look at the assembled World Map and identify the seven continents. If necessary, project the World Map (continents labeled), so students can see the names.
https://geoalliance.asu.edu/sites/default/files/maps/World_Continents.pdf
2. Talk to students about how objects, toys, and animals we love originally came from other places in our world. Distribute the Images for Graph Those Continents (6 pages).
3. Instruct students to cut out their favorite object(s), passing the papers around so each student has an opportunity to cut out at least one object.
4. Once their object is cut out, project the Around the World Object Key. Help students identify where that object originated.
5. Then have students come up to the large class World Map and place the picture on the continent of origin (using tape/glue with the help of the teacher or a parent helper). Students will then go back to their group and will wait their turn to cut out another object and repeat the process two to three times.
6. Once the World Map exercise is completed, have the students discuss and interpret the results counting how many objects are taped to each continent and talk about which continent has the most/least, etc.

SESSION TWO

Prior to Class: Put continent labels on a large space so students can build a bar graph for each continent

1. Repeat the processes described in SESSION ONE steps 3 and 4. This time have the students create a bar graph using the large continent nameplates to label the bars.
2. Once the graphing exercise is completed, have the students discuss and interpret the results counting how many objects are next to each continent, talk about which continent has the most/least, etc.
3. As an assessment, have students complete Graphing the Seven Continents worksheet. Model one of the continents so students understand the assignment.

Assessment

Geography and Mathematics

Students will be informally assessed based on recognition of number of objects graphed and their origin (names of the seven continents) when they attach their picture to the World Map and the class graph.

Students will be informally assessed by questions testing knowledge of a) greater than, b) less than, or c) equal to the number of objects in another grouping,

Students will complete an individual graph based on the data collected on the whole-class graph. They will interpret the data by solving numerical problems. Mastery will be considered 80% accuracy on graphing and answering the most and least questions.

Extensions

Have students bring in object from home and organize them according to origin – adding to the class graph.

Continue adding to the World Map pictures of objects from books read throughout the semester.

Organize the objects alphabetically – working on letter sounds and word recognition.