

Latitude and Longitude Bingo

Using the cities of the United States, bingo will help reinforce the concepts of latitude and longitude.

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Grade Level	4-5
Duration	1 class period

National Geography Standards

Element One: The World in Spatial Terms

1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective.

Arizona Geography Strand

CONCEPT 1 World in Spatial Terms GRADE 4

PO 2 Interpret political and physical maps using grid g. latitude and longitude

GRADE 5

PO 2 Locate features in the world on a map using latitude and longitude

Other Arizona Standards

Mathematics Common Core Standards Number and Operations in Base Ten

4.NBT.3. Use place value understanding to round multi-digit whole numbers to any place.

Geometry

4.G.1. Draw points, lines, line segments, rays, angles (right, acute, obtuse), and perpendicular and parallel lines. Identify these in two-dimensional figures.

5.G.2. Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

Overview

Latitude and longitude provide a method of locating with precision a given location on a map. Knowledge of how to read longitude and latitude is important map reading skill.

Purpose

The students will use latitude and longitude lines on a map of the United States to locate cities.

Materials

- The United States Bingo map
- Blank Bingo Boards, one per student
- Counters such as beans, chips, etc. for Bingo markers
- Latitude and Longitude Reference sheet for teacher (2 copies—1 for reference, 1 to cut up)

- Latitude and Longitude Quiz for assessment with answer key

Objectives

The student will be able to:

1. Distinguish between lines of latitude and longitude on a map.
2. Identify cities given their latitude and longitude using estimation to the nearest 5° reading.
3. Understand the relationship between latitude and longitude regarding parallelism and perpendicularity.

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Procedures

Prerequisite geography skill: Distinguish between latitude and longitude lines on a map.

Prerequisite math skill: Identify parallel and perpendicular lines.

1. Have students identify several cities in the United States.
2. Review latitude and longitude in reference to parallel and perpendicular, as well as estimating degrees between each latitude and longitude line on a map.
3. Review the rules for Bingo. Once a student has 5 spaces in a row (horizontally, vertically, or diagonally) covered, BINGO may be called. To win, a student must call the city name and give the approximate latitude and longitude while looking at the U.S. map. Be sure to remind students that latitude is read first.
4. Distribute map and empty Bingo Board (one per student).
5. Students fill in Bingo Board with their choice of names of cities on the United States map. Students should not write the latitude and longitude in the spaces. (Note: all of the cities will not fit on the Bingo Board so students may choose any 25 of the cities listed on the map.)
6. Model the game by stating the latitude and longitude for any city on the map and check for understanding.
7. Call out the latitude and longitude of cities on cards one at a time, giving adequate time

to locate the city on the map. Students cover the city if they have it on their Bingo board.

8. To win, a student must call BINGO and then state the 5 city names covered and give the approximate latitude and longitude for the 5 cities. Students will use the U.S. map to determine the latitude and longitude.
9. For closure, review how to determine latitude and longitude.
10. Students will complete the assessment worksheet to test conceptual knowledge of latitude, longitude, parallelism, perpendicularity, and estimation as well as practice math skills measured by Stanford Achievement Tests.

Assessment

Students will complete the assessment worksheet to test conceptual knowledge of latitude, longitude, parallel, perpendicular and estimation as well as practice math skills. Mastery is considered 80% or higher.

Extensions

Have the students continue to use latitude and longitude to find other locations in the world. Using newspaper stories can be great for current event discussions as well as providing topics for plotting with latitude and longitude.

Sources

www.bcca.org/misc/qiblih/latlong_us.html

www.getty.edu/research/tools/vocabulary/tgn/