

Latitude and Longitude Bingo

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Grade Level	5
Duration	1 class period

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

AZ Standards

MATHEMATICS
Geometry
 5.G.A.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.

Arizona Social Science Standards

GEOGRAPHY
The use of geographic representations and tools help individuals understand their world.
 5.G1.1 Use and construct maps and graphs to represent changes in the United States.
 Key concepts include but are not limited to physical and human features of the United States, the regions of the United States and their characteristics, geographic location of major events, the growth of the United States through territorial expansion, demographic changes, and the states and their capitals

Overview

Latitude and longitude provide a method of locating places on the Earth’s surface. While technology is making the learning of this skill obsolete, it is still the basis for GPS units. Understanding how technology works is a sign of a educated person.

Purpose

In this lesson, students will use latitude and longitude lines on a map of the United States to locate cities.

Materials

- Dr. Nagler’s Laboratory: Longitude and Longitude (6.32 min)
<https://www.youtube.com/watch?v=cTrsvGytGG0>
- The United States Bingo map
<https://geoalliance.asu.edu/sites/default/files/maps/USABingo.pdf>
- Blank Bingo Boards, one per student
- Counters such as beans, chips, etc. for Bingo markers
- Latitude and Longitude Bingo—Teacher’s Bingo Cards

- Latitude and Longitude Quiz and Answer Key

Objectives

The student will be able to:

1. Use latitude and longitude to find places on a map.
3. Understand the relationship between latitude and longitude regarding parallelism and perpendicularity.

Procedures

Prerequisite skills: Math--Identify parallel and perpendicular lines. Geography—know which lines on a map are latitude and longitude.
Prior to this session, print, laminate (if possible), and cut apart the Teacher Bingo Cards. Place cards in a container.

1. Distribute the U.S. Bingo map. Review latitude and longitude in reference to parallel and perpendicular, as well as estimating degrees between each latitude and longitude line on this map to make sure students understand how to read the coordinates (number of degrees and direction). Show Dr. Nagler’s Laboratory: Longitude and Longitude (6.32 min)
<https://www.youtube.com/watch?v=cTrsvGytGG0> if necessary.

Latitude and Longitude Bingo

- Distribute the Latitude and Longitude Bingo Board and Bingo markers to each student. Instruct students to write the names of 24 of the U.S. cities in the 24 boxes (one per box).
- Review the rules for playing Bingo: When the latitude and longitude for a city is called, figure out what city this would be on the map. Mark it with a marker. It takes 5 spaces in a row (horizontally, vertically, or diagonally) covered with a marker before calling BINGO. To win, a student must give the city name and the approximate latitude and longitude while looking at the U.S. map. Remember--latitude is read first.
- Model the game by drawing the latitude and longitude for several cities to check for understanding.
- Begin the game by drawing out of the container one Teacher Bingo card. Call out ONLY the latitude and longitude of the city on card, giving adequate time for students to locate the city on the map and cover the space for that city on their Bingo Board. When Bingo is called, a

student must give the city name and the approximate latitude and longitude while looking at the U.S. map. Be sure to remind students that latitude is read first.

- Have students complete the Latitude and Longitude Quiz.

Assessment

Mathematics and Geography

Students will complete the Latitude and Longitude Quiz 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 use latitude and longitude to find other locations in the world. Use current events to provide topics for plotting latitude and longitude.