Geospatial Education

Longitude & Latitude

Grade Level: 3-6

Classroom Time: 40 minutes

Materials:
- Latitude and Longitude
- World Map with Latitude and Longitude

Objectives:
1. Given instruction and reading materials, students will give a definition or description of latitude and longitude.
2. Given instruction and a world map or globe with latitude and longitude, students will identify locations by their coordinates.

Teacher's introduction to the material:
Longitude and Latitude Exercise Answers:
Find the Equator. What is the latitude? 0˚
Find the Prime Meridian. What is the longitude? 0˚
What continent lies at 0˚ latitude and 30˚ east longitude? Africa
What continent lies at 15˚ south latitude and 60˚ west longitude? South America
What continent lies at 45˚ north latitude and 75˚ east longitude? Asia
What continent lies at 45˚ north latitude and 15˚ east longitude? Europe
What continent lies at 80˚ south latitude and 120˚ west longitude? Antarctica
What ocean lies at 80˚ north latitude and 140˚ east longitude? Arctic Ocean
What ocean lies at 20˚ south latitude and 80˚ east longitude? Indian Ocean
What ocean lies at 60˚ south latitude and 180˚ west longitude? Pacific Ocean
What ocean lies at 40˚ north latitude and 40˚ west longitude? Atlantic Ocean

Instruction:
1. Read Latitude and Longitude.
2. Given students a world map with latitude and longitude and the name of a location and ask them for the coordinates.
3. Give students a world map coordinates with latitude and longitude and ask them to name the location.

Skills: Earth and Space Science, Geography, Reading comprehension

Vocabulary: Equator, Latitude, Longitude, Meridians, Prime Meridian

Latitude and Longitude

**Latitude**, shown as a horizontal line on maps, is the angular distance, in degrees, minutes, and seconds, of a point north or south of the Equator. Lines of latitude are often referred to as parallels. The **Equator** is the line of 0° latitude, the starting point for measuring latitude. The latitude of the North Pole is 90° N, and that of the South Pole is 90° S. The latitude of every point in between must be some 0 – 90 degrees north or south.

**Longitude**, shown as a vertical line, is the angular distance, in degrees, minutes, and seconds, of a point east or west of the **Prime Meridian** near Greenwich, England. The **Prime Meridian** is the line of 0° longitude, the starting point for measuring longitude. Lines of longitude are often referred to as **meridians**. One half of the world is measured in degrees of east longitude up to 180°, and the other half in degrees of west longitude up to 180°.
Latitude and Longitude Exercise

1. Find the Equator. What is the latitude? __________

2. Find the Prime Meridian. What is the longitude? ________

3. What continent lies at 0° latitude and 30° east longitude? ___________________

4. What continent lies at 15° south latitude and 60° west longitude? ___________________

5. What continent lies at 45° north latitude and 75° east longitude? ___________________

6. What continent lies at 45° north latitude and 15° east longitude? ___________________

7. What continent lies at 45° north latitude and 105° west longitude? ___________________

8. What continent lies at 80° south latitude and 120° west longitude? ___________________

9. What ocean lies at 80° north latitude and 140° east longitude? ___________________

10. What ocean lies at 20° south latitude and 80° east longitude? ___________________

11. What ocean lies at 60° south latitude and 180° west longitude? ___________________

12. What ocean lies at 40° north latitude and 40° west longitude? ___________________