**Third Grade**

**Key Concept 1:**

**Maps and Globes Lesson**

**Overview:**

This lesson is designed for students to master longitude and latitude. It provides great definitions, tricks and rhymes for remembering the difference between longitude and latitude, technology integration, and hands on practice.

**Materials Needed:**

* World Map
* Globe
* Student Worksheet
* Teacher Computer and Projector Screen

**Key Vocabulary:**

Longitude

Latitude

Equator

Meridian

Prime Meridian

Geography

Map

Equator

**Objectives:**

G.8.3.1 Use maps to describe the spatial organization of the community using relative location, distance, direction, and scale

G.8.3.2 Use thematic maps and other geographic representations to describe physical and human characteristics of a variety of places in Arkansas and the interactions that shape them

G.8.3.3 Construct maps and other geographic representations of the local community, including physical and human characteristics, title, legend, and compass rose

**Instructions:**

1. Write on a board or a sheet of chart paper the terms *latitude* and *longitude.* Let students share what they know about the terms. Write down information that students share. Correct any misconceptions they might share.
2. Explain that the lines of latitude and longitude (see resources sheet for tricks to help students remember the difference) comprise an imaginary grid that has been placed over the globe.

* The lines that run across the grid -- the flat lines -- are lines of latitude. The Equator is an example of a line of latitude. The Equator is the latitude line that divides Earth into two hemispheres, the northern hemisphere and the southern hemisphere. The Equator is the 0 point of latitude. Latitude lines north of the Equator are referred to as North latitude; latitude lines south of the Equator are referred to as South latitude.
* The lines that run up and down on the grid -- the tall lines -- are lines of longitude. The lines of longitude are also called *meridians.* The Prime Meridian, which passes through Greenwich, England, is the longitude line that divides Earth into two hemispheres, the eastern hemisphere and the western hemisphere. The Prime Meridian is the 0 point of longitude. Longitude lines east of the Prime Meridian are referred to as East longitude; longitude lines West of the Prime Meridian are referred to as West longitude.

1. Help students further understand the concepts by giving them some hands-on practice. First, determine the latitude and longitude coordinates for your students’ city and state.
2. If you are not sure of the coordinates, you can use this tool, the [Latitude and Longitude Finder](http://www.infoplease.com/atlas/latitude-longitude.html), to find your local coordinates. Just type in your City, State.
3. Write the latitude and longitude of your location on a board or chart. Help students use the Equator and Prime Meridian, and the lines of latitude and longitude, to find the location that matches the coordinates given. Students should land on *their town!*
4. Next, provide the following coordinates and have students use a map to identify the location that is identified by each set of coordinates:

* 48 degrees North latitude, 2 degrees East longitude *(France)*
* 19 degrees North latitude, 154 degrees West longitude *(Hawaii)*
* 40 degrees North latitude, 116 degrees East longitude *(China)*
* 12 degrees South latitude, 77 degrees West longitude *(Peru)*
* 33 degrees South latitude, 151 degrees East longitude *(Australia)*
* 43 degrees North latitude, 79 degrees West longitude *(Canada)*
* 20 degrees South latitude, 50 degrees East longitude *(Madagascar)*

1. When most students seem to grasp the concepts of latitude and longitude, provide the **Where in the World?** worksheet as longitude and latitude practice.

**Where in the World?**

Read each pair of latitude and longitude coordinates. Then look at a world map.

Which country do you find at those coordinates? Write the name of the country, one letter to a line. Then rearrange the letters in the boxes to answer the riddle at the bottom of the page.

1. **Latitude: 20° N Longitude: 65° W**

2. **Latitude: 50° N Longitude: 10° E**

3. **Latitude: 20° N Longitude: 80° E**

4. **Latitude: 40° S Longitude: 70° W**

5. **Latitude: 30° S Longitude: 20° E**

6. **Latitude: 40° N Longitude: 140° E**

7. **Latitude: 30° N Longitude: 30° E**

8. **Latitude: 30° S Longitude: 150° E**

Now rearrange the letters in the boxes above to figure out the answer to this riddle.

**QUESTION:**

What has cities without houses, rivers without water, and forests without trees?

**ANSWER.**

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| What is the difference between latitude and longitude? Students -- and adults -- often have difficulty remembering which lines are the flat lines that run across the globe parallel to the equator and which are the lines that run from the North Pole to the South Pole. You might provide a couple tricks" to help students remember which is which.   * **Use a rhyme to help you remember.** Rhymes such as the flat lines are the lat lines" or the lines of latitude are lines of flat-itude!" might help students remember which is which. * **Think of a ladder.** A ladder has two long sticks and many rungs that run between those sticks. Think of all the ladders horizontal rungs as lines of latitude (or ladder-tude"). * When you say the word longitude" your mouth opens tall"/up and down. Lines of longitude are the lines that extend tall" or up and down. |

