

GED 2002 Teachers' Handbook of Lesson Plans

Area/Skill - Social Studies	Cognitive Skill Level - Application	Correlation to Framework - 02.06	Lesson Number - 35
<p>Activity Title - Where Am I?</p> <p>Goal/Objective To apply map reading skills through locating places through the use of latitude and longitude.</p> <p>Lesson Outline</p> <p>Introduction Discuss that a key geographical question throughout the human experience has been, "Where am I?" In classical Greece and China, attempts were made to create logical grid systems of the world, but it wasn't until the middle ages that the latitude and longitude system was developed and implemented. This system is written in degrees (°). When looking at a map, latitude lines run horizontally. Latitude lines are also known as parallels since they are parallel and are an equal distant from each other. Each degree of latitude is approximately 69 miles (111 km) apart. To remember latitude, imagine them as the horizontal rungs of a ladder ("ladder-tude"). Degrees latitude are numbered from 0° to 90° north and south. Zero degrees is the equator, the imaginary line which divides our planet into the northern and southern hemispheres. 90° north is the North Pole and 90° south is the South Pole. The vertical longitude lines are also known as meridians. They converge at the poles and are widest at the equator (about 69 miles or 111 km apart). Zero degrees longitude is located at Greenwich, England (0°). The degrees continue 180° east and 180° west where they meet and form the International Date Line in the Pacific Ocean.</p> <p>Activity Have students practice locating places on a map using latitude and longitude. When they are comfortable with the basic skills, provide them with a map with latitude and longitude lines and the Handout—Where Am I? Have the students complete the handout and add their own Where Am I? question.</p> <p>Debriefing/Evaluation Activity Students should share their answers and then ask the class to find the location they have plotted.</p>		<p>Materials/Texts/Realia/Handouts</p> <ul style="list-style-type: none"> • Map with latitude and longitude lines • Handout - Where Am I? (include appropriate places for students to locate) • Chart paper/board and markers • Highlighters • Colored pencils/markers 	
		<p>Extension Activity</p> <p>Have students locate cities where degrees, minutes, and seconds are provided. Then have students create their own locations using degrees, minutes, and seconds.</p>	
		<p>ESE/ESOL Accommodations</p> <p>Have students use a highlighter to assist them in locating places where latitude and longitude cross.</p> <p>Provide students with enlarged versions of a latitude/longitude map.</p> <p>Start students with locations using only degrees and then increase skills to add minutes and seconds.</p>	
<p>Real-Life Connection</p> <p>Have students locate the city in which they live by identifying it through latitude and longitude. Next have students locate the city in which they were born. Write the latitude and longitude degrees on the board. See if the class can “guess” where each student was born by locating the city through latitude and longitude.</p> <p>Discuss that in real-life, latitude and longitude are used in reporting the weather. Hurricane season is one time when knowing how latitude and longitude work can be important in tracking the path of a specific storm.</p>			

GED 2002 Teachers' Handbook of Lesson Plans - Script

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Activity Title - Where Am I?

Introduction

Say: For centuries, people have asked the questions “Where am I?” In classical Greece and China, attempts were made to create logical grid systems of the world, but it wasn't until the middle ages that the latitude and longitude system was developed and implemented. This system is written in degrees ($^{\circ}$). When looking at a map, latitude lines run horizontally. Latitude lines are also known as parallels since they are parallel and are an equal distant from each other. Each degree of latitude is approximately 69 miles (111 km) apart. To remember latitude, imagine them as the horizontal rungs of a ladder ("ladder-tude"). Degrees latitude are numbered from 0° to 90° north and south. Zero degrees is the equator, the imaginary line which divides our planet into the northern and southern hemispheres. 90° north is the North Pole and 90° south is the South Pole. The vertical longitude lines are also known as meridians. They converge at the poles and are widest at the equator (about 69 miles or 111 km apart). Zero degrees longitude is located at Greenwich, England (0°). The degrees continue 180° east and 180° west where they meet and form the International Date Line in the Pacific Ocean.

As you talk to students about latitude and longitude, have a large map on the board that you can refer to so that they can see the different things about which you are talking.

Main Activity

Say: Today, we are going to locate different places on our map of the world using latitude and longitude. When you are comfortable with the skills, you will complete a short worksheet and create your own latitude/longitude question.

Provide students with drill on locating places on the map. You may choose any city in any country. Start out with easily located sites that use degrees and then advance to degree/minute/second locations. Give the students the **Handout - Where Am I?** You will need to insert the cities that you want the students to identify by latitude and longitude.

Say: When you have finished plotting the cities, create your own latitude/longitude question. Locate a city of your choice and plot the latitude/longitude. As a class, we will see if we can guess your city by the latitude/longitude coordinates that you have provided.

Closure/Conclusion

Ask: How are latitude/longitude important to you in your daily lives?

Discuss that mapmakers use latitude/longitude to ensure accuracy in all of the different maps, including such things as road maps and hurricane tracking maps. Discuss additional ways that students suggest latitude/longitude are used.

Follow-Up Lessons/Activities

Have students locate the city in which they live and the city in which they were born using latitude/longitude coordinates.

Have students research why the current system of latitude/longitude was implemented, when it was created, and who created the system.

