



MYSTERY CLASSES

JOURNEY NORTH

MYSTERY CLASS

NEWS

RESOURCES

SIGHTINGS

MAPS

HOME

The World's Biggest Address Book

Learning about Latitude and Longitude

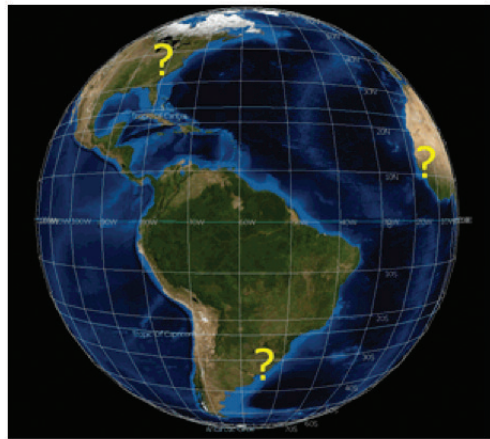


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by Julie Brophy

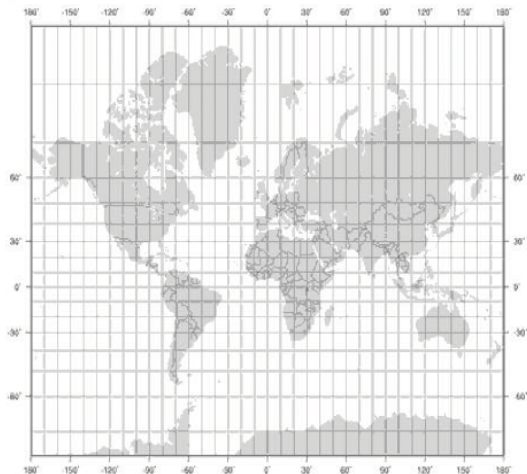


Many Journey North lessons ask you to use maps and globes to explore locations around the world. Where are birds, butterflies, and other animals migrating? Where are tulips blooming? Where are secret Mystery Classes hiding?



In Mystery Class, you are asked to find 10 secret classrooms hiding all over the world. But how can you say where they are located when you don't have addresses for them?

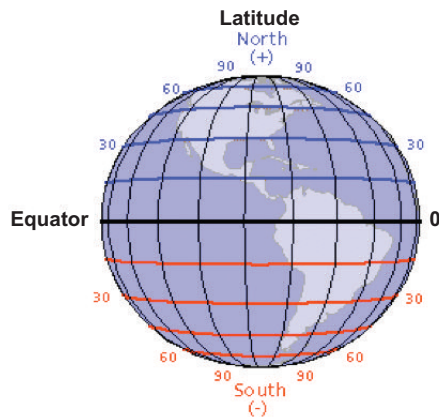
List some ways you could describe exactly where in the world something is located. For instance, you could name the country and city. But what if it were a spot in the middle of the ocean?



Long ago, scientists developed a way to describe every location on earth using a **global address**. This method uses two sets of numbers (called **coordinates**). They tell us where to find a location using a **grid system**, like the lines on graph paper.

It's like saying, "You can find my house where Maple Road crosses Elm Street." Instead of streets, the global address uses numbered horizontal and vertical lines called **latitude and longitude**. You describe a location by giving the numbers of the lines that intersect (for example, 20 latitude north, 90 longitude west).

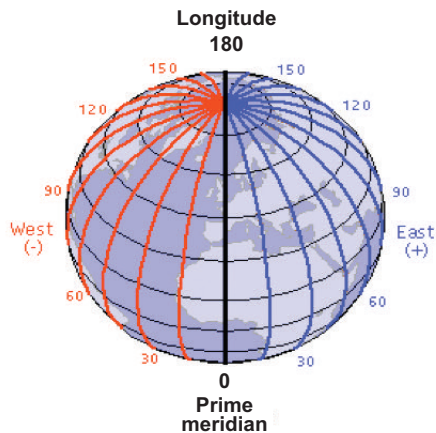
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The horizontal lines of latitude are called **parallels** because they run parallel to the equator. Imagine them as horizontal "hula hoops" around the earth.

The latitude line numbers measure how far north or south of the equator a place is. The equator has the number 0 degrees latitude. The numbers get larger the further away from the equator up to 90 degrees. Latitude locations are given as __ degrees north or __ degrees south.

4



The vertical longitude lines are called **meridians**. Think of these as hula hoops cut in half, attached from one pole to the other. The longitude line numbers measure how far east or west of the prime meridian a place is.

This prime meridian line runs vertically, right over Greenwich, England, from the North Pole to the South Pole. It is numbered as 0 degrees longitude. Numbers increase the further away you move, up to 180 degrees. Longitude locations are given as ___ degrees east or ___ degrees west.

Try This!

Can you use what you've learned about latitude and longitude to play hide and seek?

1) City Search

Below is a list of approximate latitude/longitude coordinates for three cities around the world. Use a world atlas and the coordinates below and try and identify what cities the coordinates are for.

- 51.5 degrees latitude N; 0 degrees longitude
- 1.33 degrees latitude N; 103.75 degrees longitude E
- 33.5 degrees latitude S, 70.66 degrees longitude W

2) Secret Island Hopping

Pick two SECRET island locations in an ocean and figure out what their approximate coordinates are. Write down the coordinates for the islands, and give them to another student (but don't tell him or her the name of the islands). Ask that student to point out on an atlas where the islands are. Did your classmate find your secret sites?