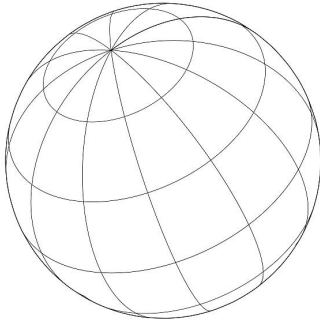


Latitude and Longitude



A System for Specifying Location

In order to understand the world around them, people had to create a system to constantly identify locations and measure distances between those places. They used math to create a grid system that allows us to determine and communicate the exact location of any point on the Earth's surface.

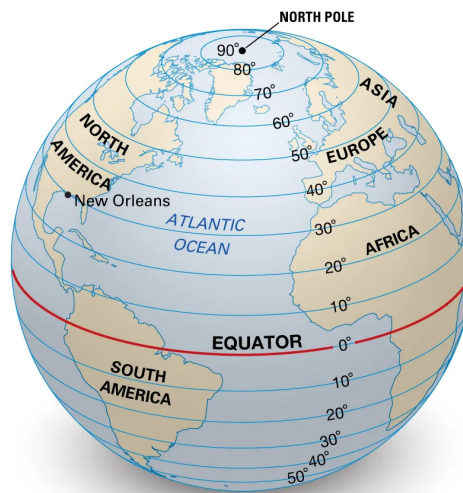


The Geographic Grid

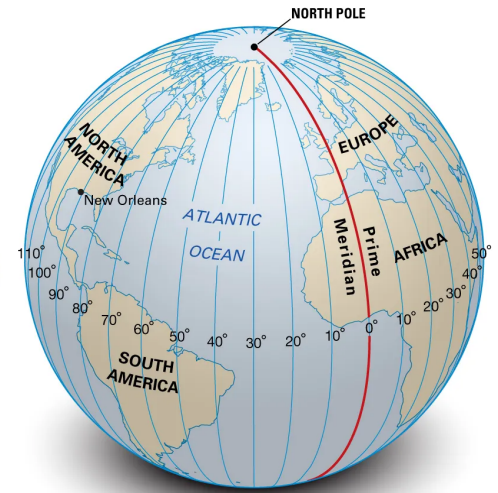
- Is based on angles, so locations are expressed in degrees of latitude and longitude.
- Latitude is a measure of location north or south of the Equator. The Equator is at 0° . The North Pole and South Pole are at 90° North and 90° South.
- Longitude is a measure of location east or west of the Prime Meridian, which is given a value of 0° .
- Lines of latitude always intersect lines of longitude at right angles.
- Is used on globes and maps and by phones and other digital devices that give us locational information.

Let's organize some information about latitude and longitude.

Determine whether each statement describes lines of latitude or lines of longitude, and then place a check mark in the correct column.



Lines of Latitude



Lines of Longitude

	Lines of Latitude	Lines of Longitude
Indicate location north or south from the Equator.		
Indicate location east or west of the Prime Meridian.		
Circles that are equidistant from the poles at every point.		
Meet at the poles and are farthest apart at the Equator.		
Run in a north-south direction.		
Run in an east-west direction.		
Sometimes called "parallels" because they never meet.		

Latitude and Longitude (cont.)



Geographer's Notebook

Let's go to page 19 of the atlas to explore more.

Along which line of latitude is the boundary between California and Oregon found?

Which line of longitude forms a portion of the California-Nevada boundary?

Geographic Coordinates

Having a grid system is important, but it is also necessary to be able to measure your position within that grid system. In the past, people created many different methods for determining their location. They used observations of stars and planets and tracked the times at which the sun rises and sets, for example. Now, global position systems (GPS) link phones and other electronic devices to a network of satellites orbiting the Earth so that you can get an exact location no matter where you are!

Example: the state Capitol in Sacramento is at 38.58° North (latitude), 121.49° West (longitude).

Which Indian Reservation is found closest to 41° North, 124° West?

Give approximate coordinates for the Tule River Indian Reservation.

Let's go to page 38 for a little more practice.

Which is the only country labeled on this map that is south of the Equator?

Which two countries labeled on this map are in the Western Hemisphere? (Hint: This means they would have a West longitude.)

Which line of longitude is at the center of this map?

Why do you think the authors chose to place 120° West at the center of this map rather than the Prime Meridian?

Which country is further east, Saudi Arabia or Japan? How do you know?