

## Latitude and Longitude



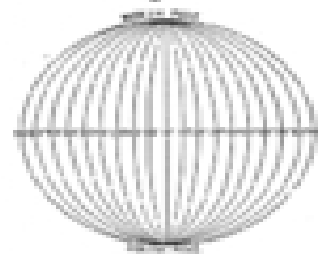
If you want to tell people where your house is, you can tell them the country, the city or the street address. But what do you do if you want to tell someone the exact location of something like a waterfall in a forest—someplace where there are no road signs or streets? How would you do it? You need to use longitude and latitude to be able to tell the exact place. Longitude and latitude are imaginary lines that run around the world. Lines of longitude (also called meridians) run in a north-south direction from the North Pole to the South Pole, and lines of latitude run around the world in east-west directions. Longitude and latitude are two of the most basic terms in geography, and if you understand them, you can easily find any place on Earth!

A circle has  $360^\circ$  (degrees), and half a circle has  $180^\circ$ . The same is true for a globe. If you look at a globe, put your finger on New York City and then trace a line east all the way around the globe back to New York City, you will have traced all  $360^\circ$  of longitude. The Prime Meridian is at  $0^\circ$  longitude, and runs through Greenwich, England. The location of the Prime Meridian was decided at an international conference in 1884. Halfway around the world, in middle of the Pacific Ocean, is the International Date Line (IDL), measured at  $180^\circ$  longitude.

Longitude is measured in degrees east or degrees west, and there are  $180^\circ$  east and  $180^\circ$  west. Degrees of longitude are about 69 miles (111 km) apart from one another at the equator. The same thing is true for latitude. The equator is at  $0^\circ$  latitude, and is the longest line of latitude. The equator is about 40,075 km long! The equator divides Earth into two parts: the northern and southern hemispheres. Lines of latitude are measured in degrees north or degrees south. There are  $90^\circ$  north, and  $90^\circ$  south. Like the degrees of longitude, at the equator, degrees of latitude are about 69 miles (111 km) apart from one another. They aren't always exactly 69 miles though, as the Earth is not perfectly round. The north and south poles are slightly flattened, and there is a bit of an extra bulge at the equator.

Just as an hour is divided into minutes and seconds, one degree also has smaller sections. One degree of longitude or latitude is divided into 60 equal parts, called minutes, and each minute is divided into 60 equal parts, called seconds!

**Longitude**



**Latitude**

