

Encyclopedic Entry

latitude

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<http://education.nationalgeographic.com/encyclopedia/latitude/>

Latitude is the measurement of distance north or south of the **Equator**. It is measured with 180 imaginary lines that form circles around the Earth east-west, parallel to the Equator. These lines are known as **parallels**. A circle of latitude is an imaginary ring linking all points sharing a parallel.

The Equator is the line of 0 degrees latitude. Each parallel measures one degree north or south of the Equator, with 90 degrees north of the Equator and 90 degrees south of the Equator. The latitude of the North Pole is 90 degrees N, and the latitude of the South Pole is 90 degrees S.

Like the poles, some circles of latitude are named. The Tropic of Cancer, for instance, is 23 degrees 26 minutes 21 seconds N—23° 26' 21" N. Its twin, the Tropic of Capricorn, is 23° 26' 21" S. The tropics are important geographic locations that mark the northernmost and southernmost latitudes where the sun can be seen directly overhead during a **solstice**.

One degree of latitude, called an **arc**degree, covers about 111 kilometers (69 miles). Because of the Earth's **curvature**, the farther the circles are from the Equator, the smaller they are. At the North and South Poles, arcdegrees are simply points.

Degrees of latitude are divided into 60 minutes. To be even more precise, those minutes are divided into 60 seconds. One minute of latitude covers about 1.8 kilometers (1.1 miles) and one second of latitude covers about 32 meters (105 feet).

For example, the latitude for Cairo, Egypt, in degrees and minutes would be written as 29° 52' N, because the city is 29 degrees, 52 minutes north of the Equator. The latitude for Cape Town, South Africa, would be 33° 56' S, because the city is 33 degrees, 56 minutes south of the Equator. Using seconds of latitude, **global positioning system (GPS)** devices can pinpoint schools, houses, even rooms in either of these towns.

Similar to latitude, the corresponding measurement of distance around the Earth is called **longitude**. The imaginary lines of latitude and longitude intersect each other, forming a grid that covers the Earth. The points of latitude and longitude are called **coordinates**, and can be used together to locate any point on Earth.

VOCABULARY

Term	Part of Speech	Definition
arc	<i>noun</i>	part of the outline of a circle.

coordinates	<i>noun</i>	a set of numbers giving the precise location of a point, often its latitude and longitude.
curvature	<i>noun</i>	shape of a bent or curved object or form.
degree of latitude	<i>noun</i>	measurement of distance from the equator. The first degree of latitude is 111 kilometers (69 miles), decreasing in size to points at the North and South Poles.
Equator	<i>noun</i>	imaginary line around the Earth, another planet, or star running east-west, 0 degrees latitude.
Global Positioning System (GPS)	<i>noun</i>	system of satellites and receiving devices used to determine the location of something on Earth.
latitude	<i>noun</i>	distance north or south of the Equator, measured in degrees.
longitude	<i>noun</i>	distance east or west of the prime meridian, measured in degrees.
minute of latitude	<i>noun</i>	measurement of about 1.8 kilometers of latitude north or south of the equator.
parallel	<i>adjective</i>	equal distance apart, and never meeting.
precision	<i>noun</i>	exactness.
second of latitude	<i>noun</i>	measurement of about 32 meters of latitude north or south of the equator.
solstice	<i>noun</i>	astronomical event that occurs twice a year, when the sun appears directly overhead to observers at the Tropic of Cancer or the Tropic of Capricorn.

For Further Exploration

Articles & Profiles

- [NASA: Latitude and Longitude](#)

Websites

- [Geography for Kids: Latitude and Longitude Map Match Game](#)



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