

Latitude and Longitude

As students who are curious about the world around you, it's probably safe to say that you want to know where places are. There are two ways geographers can do this - with *relative location* and *absolute location*.

The first method, relative location, helps us find a place based on things around it. For example, if somebody asked for directions to a grocery store, you could tell them it was next to a park or that it's about ten minutes from your house.

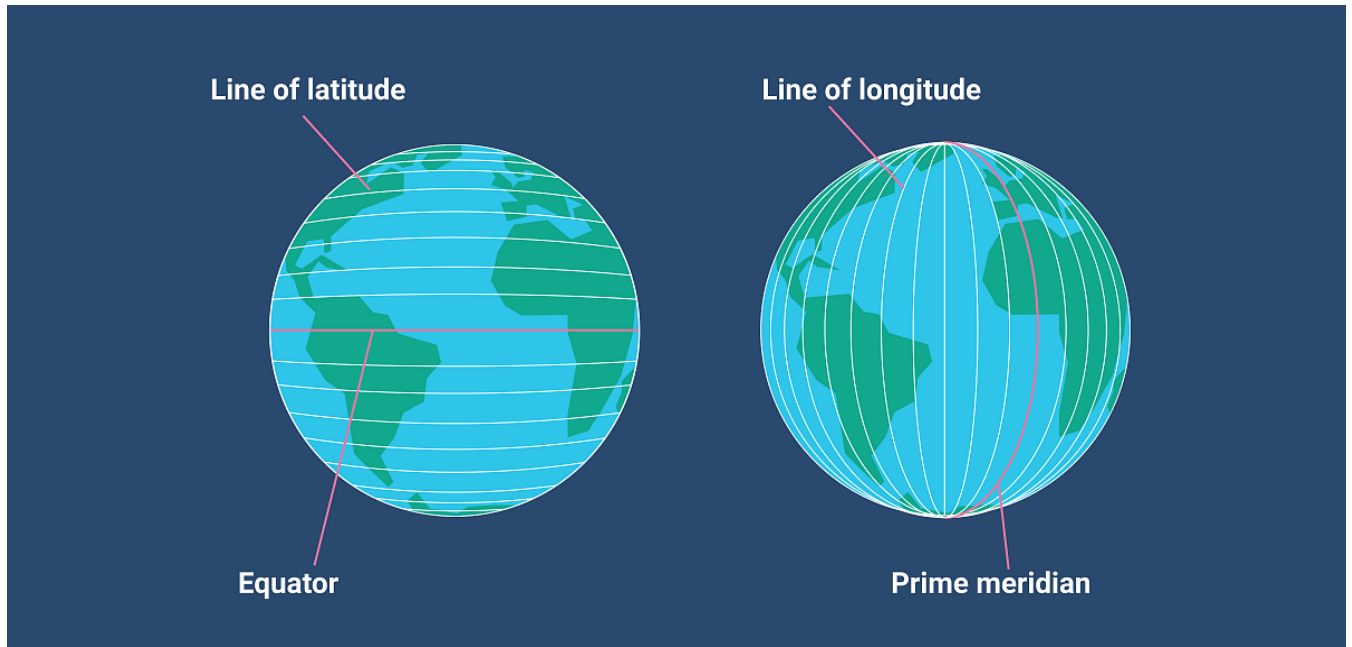
If you've ever driven on the highway, you've probably seen mile markers before. These work in the same way: they tell us where we are based on how near or far we are from other locations. A place's relative location refers to its distance or situation from where we are at the time, and vice versa.

But what if you wanted to find a place in the middle of nowhere? There's a system that takes care of this. Longitude and latitude create a system of "addresses" for every place, even if that place isn't a building - we're able to find its *absolute* location with numbers.

We can imagine the world as being covered in an imaginary grid. There are two types of lines, one type running side-to-side (from east to west) and the other going up-and-down (from north to south). These first lines are called lines of latitude. These *flat* lines run *laterally*.

The main line of latitude is the Equator, so we call that 0° (we measure these things in degrees). If you move up, or north, from the Equator, say 15° , you would describe that you are at 15°N . You can also move 15° to the other way - down or south - so you would label that 15°S . These lines keep going 180° in both ways. 180°N would be the North Pole, and 180°S would be the South Pole.

The other lines measure what's called longitude. These *long* lines tell us how far something is from the prime meridian. If you move to the right or east of the prime meridian (0°) by 30° , you would say that you are at 30°E . The same goes for moving to the west - you would be at 15°W , 30°W , or 60°W .



Combining these two can help us find a location in the world without having to know what's around it. At $15^{\circ}\text{S } 45^{\circ}\text{W}$, we've wound up in Brazil, and at $30^{\circ}\text{N } 150^{\circ}\text{E}$, we're in the middle of the Pacific Ocean! Many maps show these lines on them so you can pinpoint places around the world.

So in short, latitude tells how far north or south we are from the Equator, and longitude tells us how far east or west we are from the prime meridian. It can be tricky to understand this stuff on its own, so here are some questions for you to practice with!

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1. What country, referred to as "Land Down Under" is at 30° S / 135° E?
2. What tiny country could you visit at 42° N / 12° E?
3. What island capital is located at 53° N / 6° W?
4. Would you be more likely to hear Arabic or Chinese at 25° N / 50° E?
5. What ocean is south of 9° N / 78° E?
6. If you are at 13° S / 72° E, would you see the Taj Mahal or Machu Picchu?
7. Where would you be swimming if you were at 35° N 20° E?
8. If you are at 31° N / 121° E, what big city is nearby?
9. What long river has its mouth at 0° / 50° W?
10. What would you probably use to eat lunch with at 35° N / 135° E?
11. What desert is located at 25° N / 0° ?
12. Would you be more likely to see penguins or peacocks at 55° S / 70° W?

13. What Pacific island country is at 18°N / 178°E?

14. Would you hear “¡Hola!” or “Bonjour!” at 46°N / 2°E?

15. What ocean could you see from 38°N / 122°W?

1. Australia
2. Vatican City
3. Dublin
4. Arabic
5. Indian Ocean
6. Machu Picchu
7. Mediterranean Sea
8. Shanghai
9. Amazon River
10. Chopsticks
11. Sahara Desert
12. Penguins
13. Fiji
14. "Bonjour"
15. Pacific Ocean