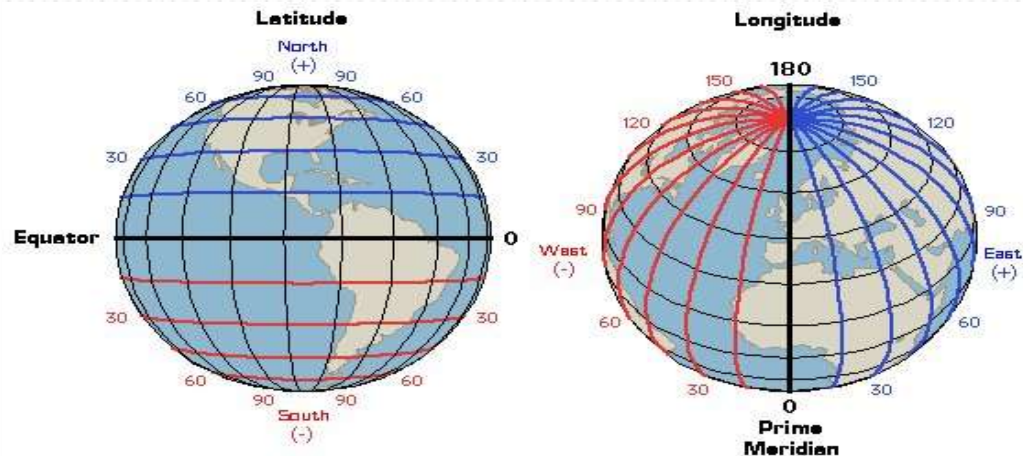


Introduction to Latitude and Longitude



8th Grade Earth and Space Science Notes

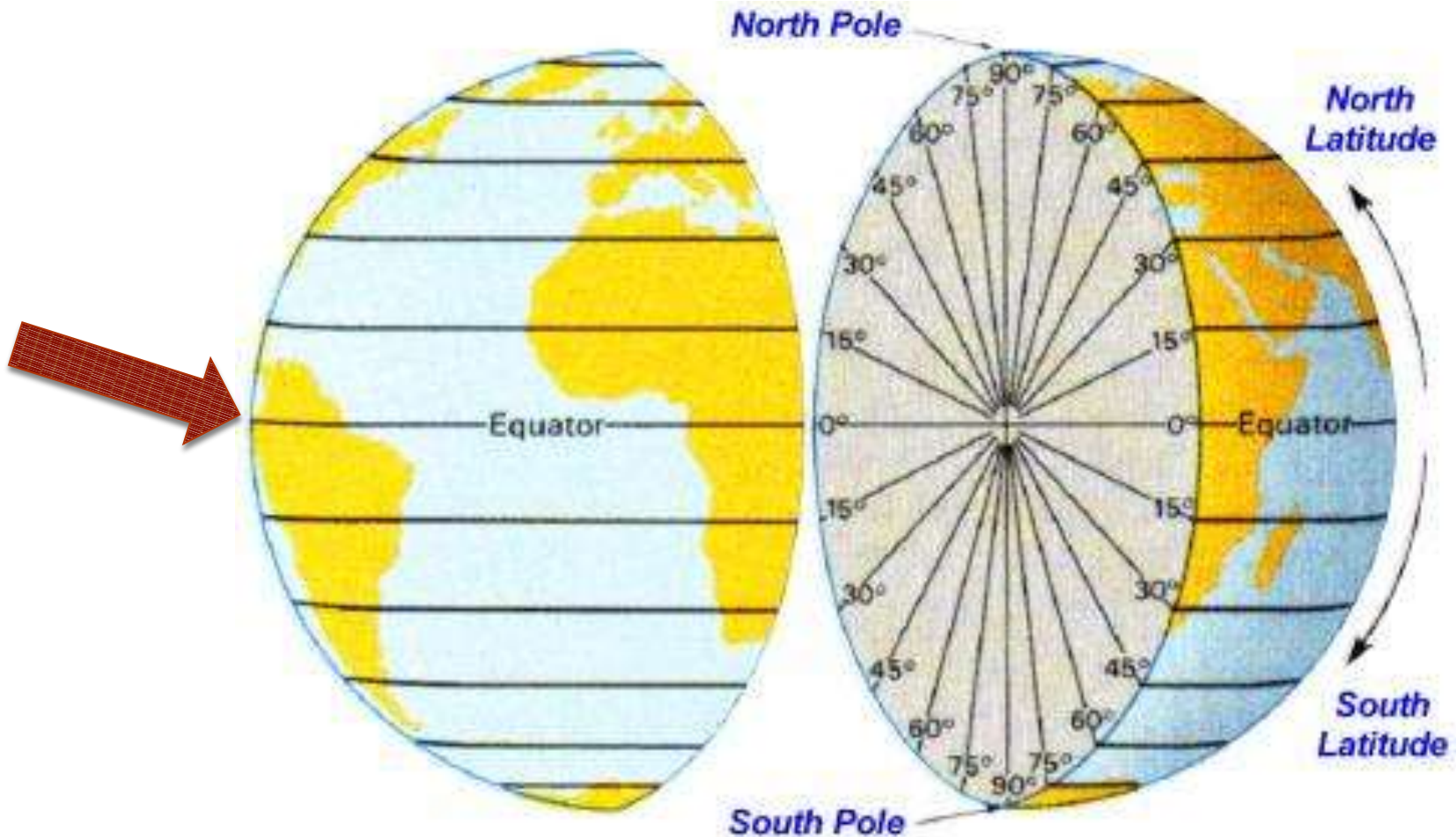
Objectives:

- Describe the difference between latitude and longitude.
- Explain why it is important to give a city's complete coordinates when describing its location.

Important Vocabulary

- **Latitude** – Lines on a map that run parallel to the equator (locates positions North and South)
- **Equator** – Imaginary line that horizontally circles the Earth halfway between the North and South poles

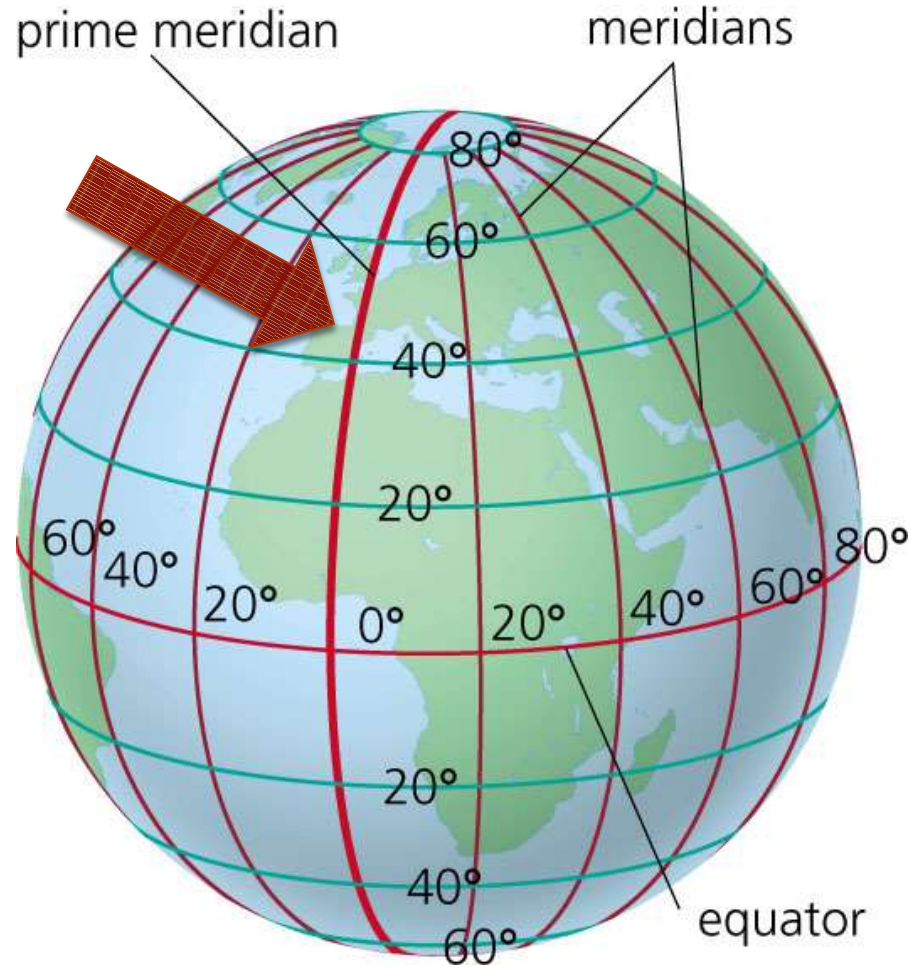
The Equator and Latitude



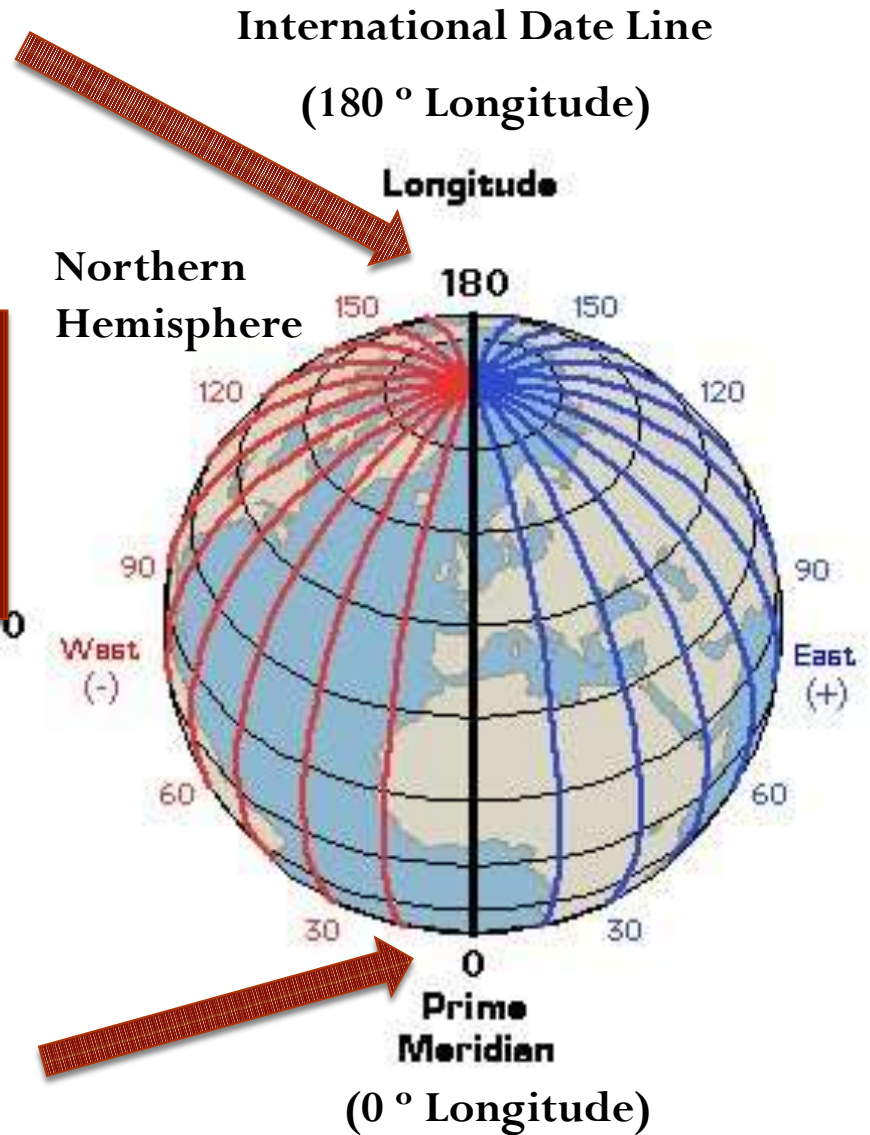
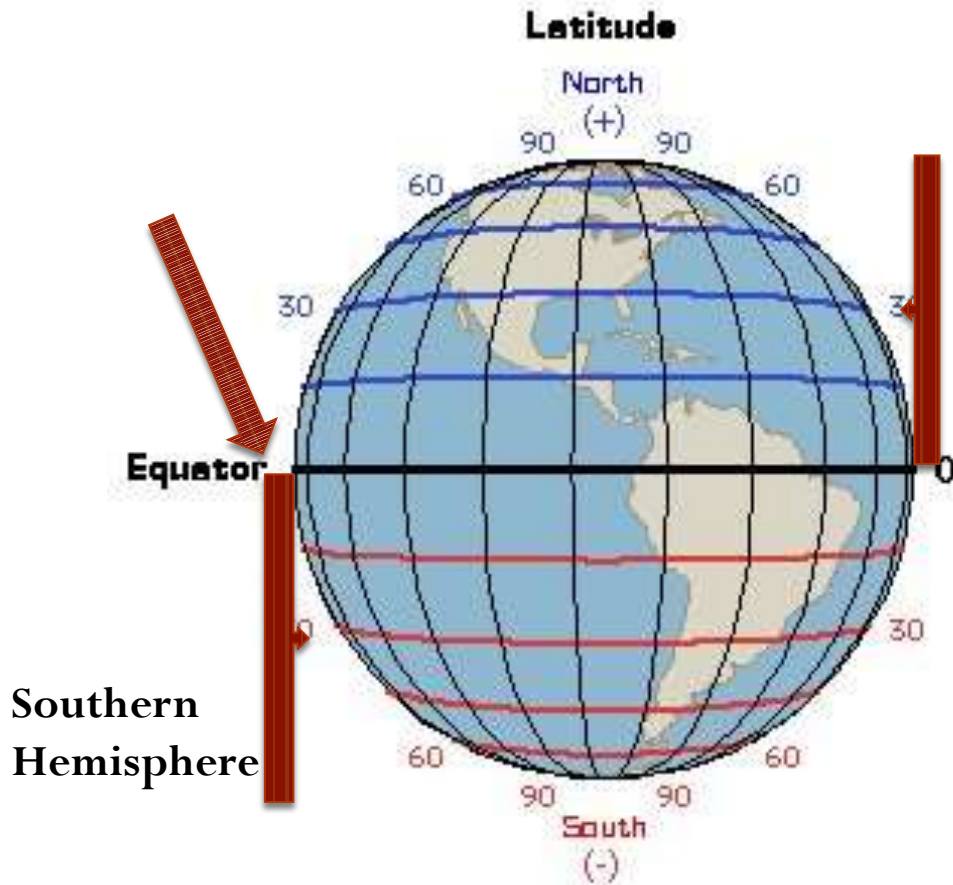
Important Vocabulary

- **Longitude** – Lines on a map that run East and West of the Prime Meridian
- **Prime Meridian** – Represents 0° longitude
 - In 1884, astronomers decided this line should run through Greenwich, England because it was home to the Royal Naval Observatory

The Prime Meridian and Longitude



Label the Map!



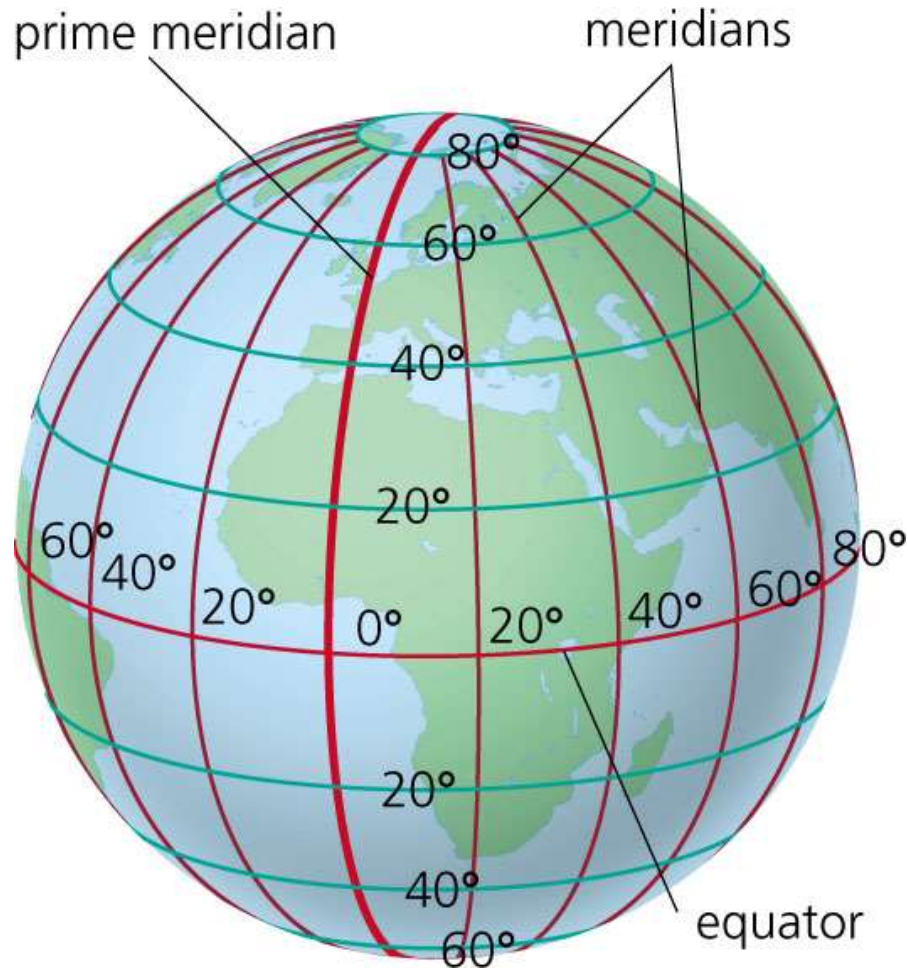
Lines of Latitude

- First, lines of latitude run **parallel** to the **equator** while lines of longitude do not. These lines are called parallel because they never **intersect**.
- Each degree of latitude is equal to 111 kilometers (km) on the Earth's surface.

Lines of Longitude

- Second, lines of longitude (meridians) do not run parallel to their reference point, the **Prime Meridian**. Since they meet at the poles the distance between the lines of longitude is larger as you get closer to the **equator** and smaller as you get closer to the **poles**.
- One degree of longitude varies from about 111 km at the equator to 0 km at the poles.

Lines of Latitude and Longitude



Degrees, Minutes, and Seconds

- **Minutes (′)** – 60 minutes is equal to 1° of latitude or longitude
- **Seconds (″)** – 60 seconds is equal to 1 minute of latitude or longitude

Using Latitude and Longitude

