

LONGITUDE AND LATITUDE

Background Information

Lines of longitude or meridians – Longitude is a position on the Earth's surface indicating the distance east or west of Greenwich, England, the **Prime Meridian**. The distance, expressed in degrees, minutes, and seconds – is measured along a latitude line. The imaginary half-circles connecting the points of the same longitude, from the North Pole to the South Pole are called **Meridians**. On the opposite side of the globe from Greenwich is the international date line, 180 degrees West or East. At the equator, one degree of longitude equals 111.32km – at the poles, it is zero.

Lines of latitude or parallels – the latitude of a point on the Earth's surface is its distance north or south of the equator. Lines of latitude extend east or west at precise intervals from the equator, which is the 0 degree parallel. Because the latitude lines are drawn around the Earth sphere, they can be divided as a circle into degrees, minutes, and seconds. The length of a degree of latitude becomes larger as distance from the equator increases.

The **equator** is a line around the center of the earth that is equal distance from both poles.

Objective

Upon completion of this activity, students will be able to:

- locate cities using longitude and latitude.
- plot cities on a map with reference to longitude and latitude.

Instructional Time

45 Minutes

Materials

Student pages

Maps

Pencil

Ruler

Procedure

1. Prepare overhead or drawing to demonstrate longitude and latitude.
2. Copy student lab sheet and map.
3. Review/Introduce to students the use of longitude and latitude.
4. Instruct students to complete worksheet by locating the longitude and latitude of the ten cities listed. Then, use the longitude and latitude they determined to plot the cities on the world map.