Chapter 1: Mapping Earth
Lesson 1: Maps

Map: model of Earth

- **Map view:** drawn as if you were looking down on an area from above Earth's surface
- **Profile view:** drawing that shows an object as though you were looking at it from the side

Map legend: a key that lists all the symbols used on the map

Map scale: the relationship between a distance on the map and the actual distance on the ground

- Written scale: one centimeter equals one kilometer
- Ratio or Fraction: 1:100,000
- Graphic Scale (Scale bar): used to measure distances on the map

Longitude: distance in degrees east or west of the prime meridian

- *Prime meridian:* passes through Greenwich, England and represents 0° Longitude
- Meridian lines pass through the North and South Poles
- Divides the Earth into east and west halves (or hemispheres)

Latitude: distance in degrees north or south of the equator

- *Equator:* the center line on the Earth that divides it into northern and southern hemispheres
- Lines of latitude are parallel with the equator being the largest circle and the poles having the smallest circles
- North Pole = 90^oN
- South Pole = 90^oS
- Latitude is always stated before longitude

Time Zone: the area on Earth's surface between two meridians where people use the same time

- The reference or starting point is the prime meridian
- Divided into 24 time zones (Mountain Standard Time)
- Width of a time zone is 15° longitude

International Date Line: the line of longitude 180° east or west of the prime meridian

- East to west: it is the day before in the west
- West to east: it is the next day in the east

Map Projections:

- Cylindrical Projections:
    - The shapes around the equator are shaped very well with the greatest distortions around the poles
- Conical Projections:
    - It has the least amount of distortions where the lines of latitude touches the globe with the greatest distortions everywhere else