Models of Earth

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| Compare and contrast maps and globes.  What are the features of maps?  What system is used to reference points of Earth?  How are degrees used to measure Earth’s surface?  Why is the equator useful in making models of Earth?  Why is the prime meridian useful in making models of Earth?  What is the difference between latitude and longitude?  What are the common map projections? | Maps and globes are both drawn to scale and use symbols to represent topography. Maps are flat, while globes are a sphere. Globes represent Earth’s entire surface, but maps only show part.  Maps have symbols, key/legend, compass rose, and a scale.  The equator and prime meridian are baselines for measuring distances on Earth’s surface.  Each degree is a measure of the angle formed by lines drawn from the center of Earth to points on the surface.  The equator divides the Earth into northern and southern hemispheres.  The prime meridian divides Earth into eastern and western hemispheres.  Latitude goes side to side (flat) and longitude goes up and down.  1. Mercator projection- Lines of latitude and longitude are straight and form a rectangle. Land by the poles is distorted, if shown at all.  2. Equal area projection- Relative sizes of landmasses are correct, but the edges of the map are stretched and curved.  3. Conic projection- Lines of latitude are straight, but longitude are curved. The most accurate map! But it can only show small areas. |

Summary: