Map Projections

**The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the best** representation of the Earth’s surface, because it is 3D.

Map projections are ways that **cartographers** (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) have tried to ‘flatten’ the surface to the globe so that it is 2D.

There are many different types of projections, and **\_\_\_\_\_\_\_\_\_\_\_\_\_\_ one** has some part that is not 100 percent correct - we call this **distortion**.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is commonly found in the following ways:

* + **Size (area)** of the land or water
  + **Shape** of the land or water
  + **Distance** between two points
  + **Direction (**N, S, E, W)

Distortion is often greatest **at the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** of the map, especially at **the poles.**

**Scale** of maps also affect distortion –the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the scale, the larger the distortion**.

Most world maps have the **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ at the center**, which can lead to people thinking that the ‘western’ nations (**Europe & North America**) are more important because they are more accurately shown.

In a nutshell, the projections we looked at in class are compared as follows:

Mercator – accurate continent shape, distorted near the edges, used for navigation

Peters, Goode – accurate size (area), but shapes are distorted, used for comparing countries (ex. Population). Peters shows Africa as largest, has political use.

Robinson – accurate direction and appearance of continents, but distance, suze and shape are distorted. Less distortion of western part of the world, useful for international air travel & theme maps of the world.

Hammer – accurate direction and distance on land, distortion near edges, used for navigation.

Map Projections

**The globe is the best** representation of the Earth’s surface, because it is 3D.

Map projections are ways that **cartographers** (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) have tried to ‘flatten’ the surface to the globe so that it is 2D.

There are many different types of projections, and **each one** has some part that is not 100 percent correct - we call this **distortion**.

Distortion is commonly found in the following ways:

* + **Size (area)** of the land or water
  + **Shape** of the land or water
  + **Distance** between two points
  + **Direction (**N, S, E, W)

Distortion is often greatest **at the edges** of the map, especially at **the poles.**

**Scale** of maps also affect distortion –the **larger the scale, the larger the distortion**.

Most world maps have the **Prime Meridian at the center**, which can lead to people thinking that the ‘western’ nations (**Europe & North America**) are more important because they are more accurately shown.