

Geography Overview



What is Geography?

- It is the study of our earth;
our home.

Or

- Anything that can be
mapped!

Geography mixes up the physical and human aspects of our world into one field of study.

Geography shows the relationship between people and the environment.

What is a Geographer?

Someone who analyzes the Earth from many points of view.



Things that Geographers study:

- oceans
- plant life
- landforms
- people
- how the Earth and its people

The Geographer's Tools

❖ Globes and Maps:

As people explored the Earth, they collected information about it.

Mapmakers wanted to present this information correctly.

The best way was to put it on a globe, a round ball that represented the Earth.

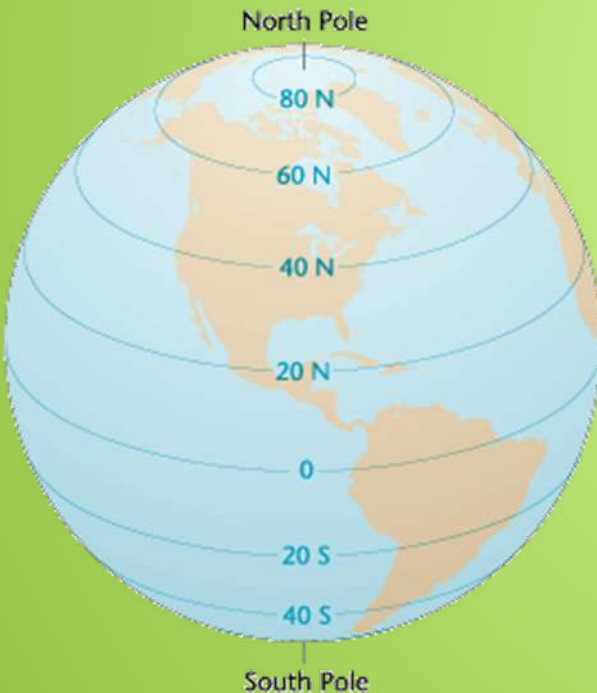
Because globes are not practical or easy to use to carry, flat maps were invented.

However, the earth is round and a map is flat.

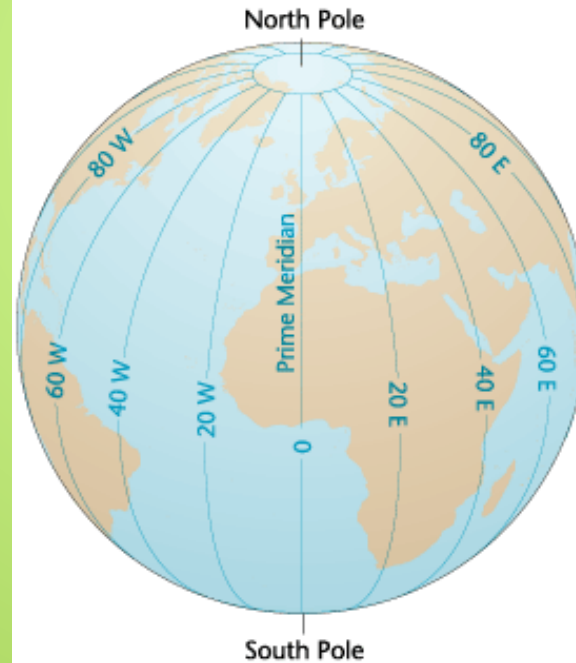
Mapmakers had to find ways to make maps accurate.

How Latitude and Longitude Form the Global Grid

Parallels of Latitude



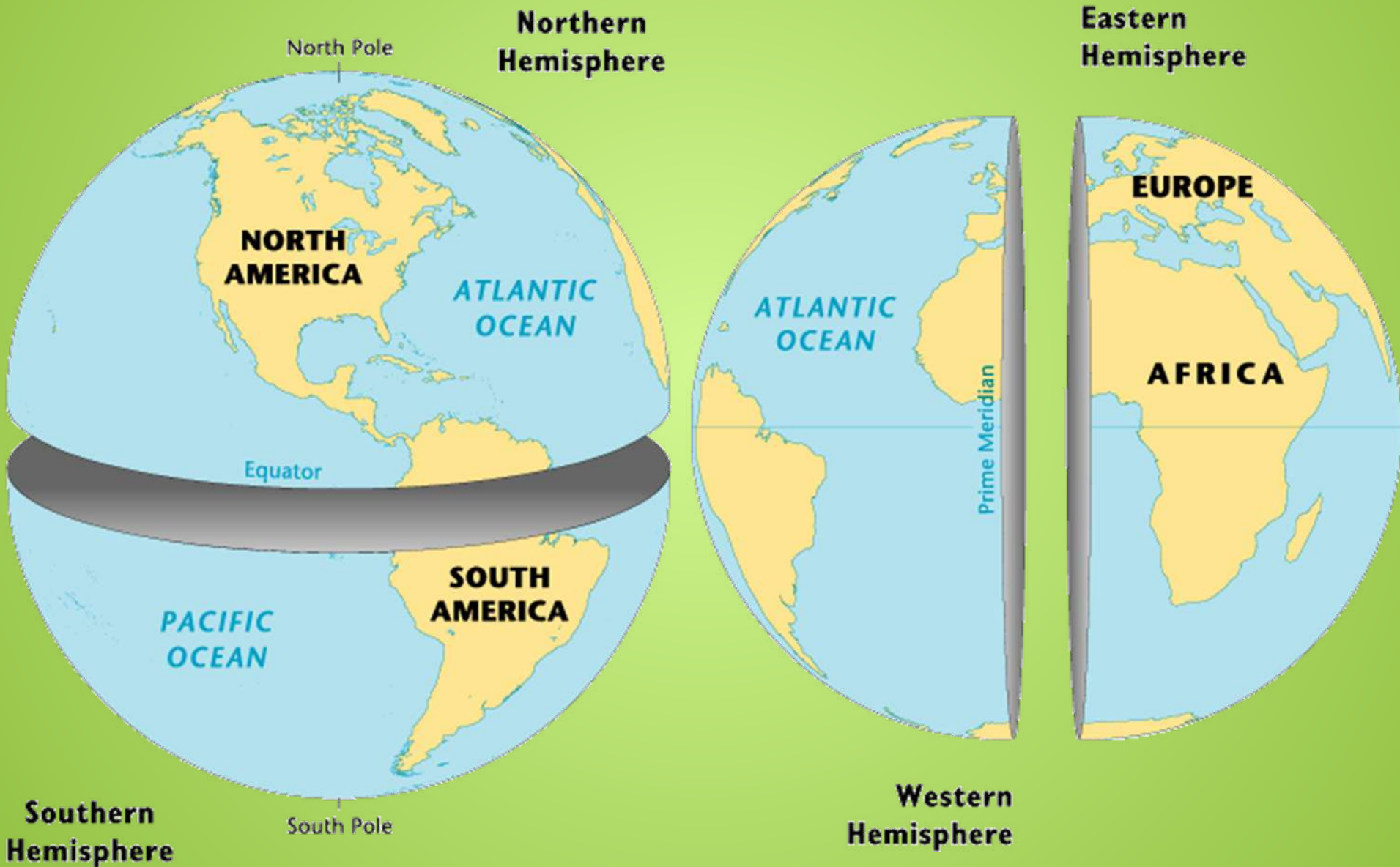
Meridians of Longitude



Global Grid



The Hemispheres



Globes and Maps

- The most accurate way to present information on the islands, continents, and bodies of water of the world is to put it all on a **globe**, a round ball like the Earth itself.
- The only difference between a globe and the Earth itself is the **scale**, or size, represented on the globe.

Globes have a disadvantage:

They cannot be complete enough to be useful and at the same time be small enough to be convenient.

Therefore, people invented flat maps.

Maps try to show the Earth, which is round, on a flat surface.

This causes **distortion**, or a change in accuracy of the shapes and distances of places.

It is impossible to show the Earth on a flat surface without some distortion.

Map

In 1569, a geographer named Gerardus Mercator created a flat map to help sailors navigate long journeys across the globe.

The Mercator projection, or method of putting a map of the Earth onto a flat piece of paper, is used by nearly all deep-sea navigators.

The Mercator projection is a conformal map, meaning that it shows correct shapes, but not true distances or sizes.

There are many types of other projections of the globe.



The World: Three Projections

There are many ways to show a globe on a flat map.

The interrupted projection map, on the left, shows real sizes and shapes of continents.

The equal area map, below left, shows size accurately.

The Peters projection, below, shows land and oceans areas and correct directions

Interrupted Projection



Equal-Area Projection



Peters Projection



The world: A Robinson Projection



The Parts of a Map



Compass Rose

A compass rose is a model of a compass. It tells the cardinal directions, which are north, south, east, and west.

Scale

The scale on a map tells you the relative distance on the map to the real world. For example, a map's scale may tell you that one inch on the map equals one mile in the real world.



Key

The key, or legend, on a map explains what the symbols on a map represent, such as triangles representing trees.

Grids

Some maps use a grid of parallels and meridians. On a map of a small area, letters and numbers are often used to help you find your location.