

INTRODUCTION TO WORLD GEOGRAPHY

All power points are on my website starting the day after we begin the power point. IF YOU ARE ABSENT, go to my website immediately in order to get the work you missed.

My website is a place for you to get extra help, I will have a variety of videos and extra power points on ALL SUBJECTS WE STUDY! If you are having trouble with a concept, GO TO MY WEBSITE! 😊

Go to: www.Kelly.coats@cvisd.org/domain/552

If you are on a computer, go to Classroom Files on the left hand side click that and find a list of activities look for PREAPWGEO: work.

If you are on your phone find the menu and then go to Classroom Files.

INTRODUCTION TO WORLD GEOGRAPHY

- ❖ Mapping Concepts
- ❖ Core Geographic Concepts
- ❖ Physical Geographic Process Concepts

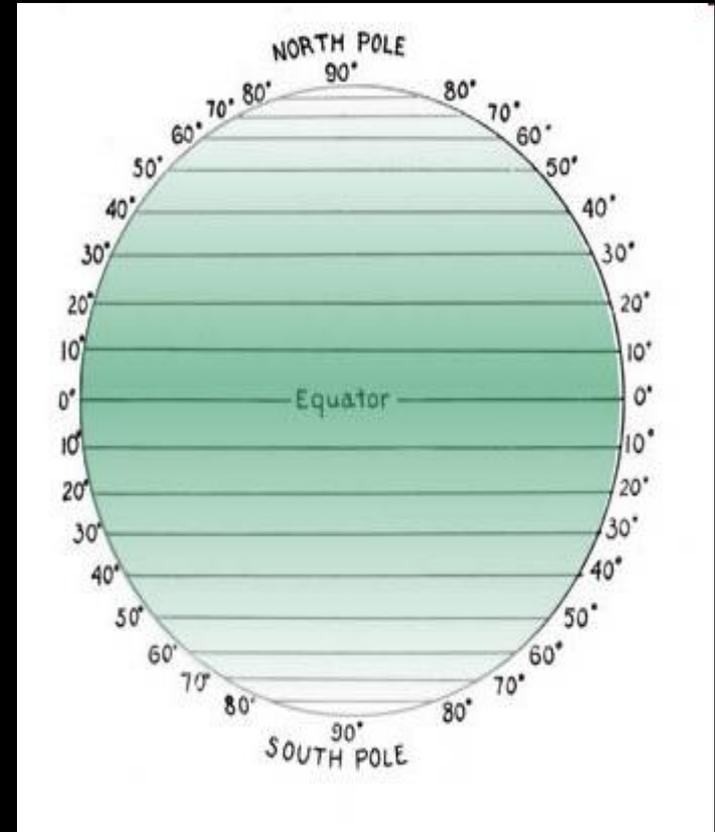


MAPPING CONCEPTS

LATITUDE AND LONGITUDE

- **Latitude**

- **Latitude** – also known as **parallels**, circle the earth parallel to the Equator and measure the distance north or south of the Equator in degrees.
- The **Equator** is measured at 0° latitude, while the Poles lie at latitudes 90° N (north) and 90° S (south). Parallels north of the Equator are called **north latitude**, and parallels south of the Equator are called **south latitude**.

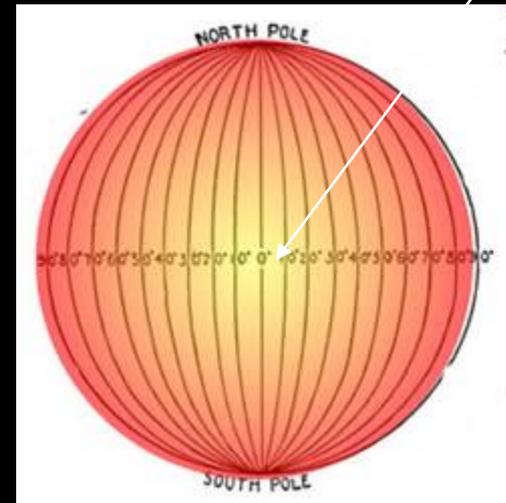


GEOGRAPHIC SKILLS

- **Longitude**

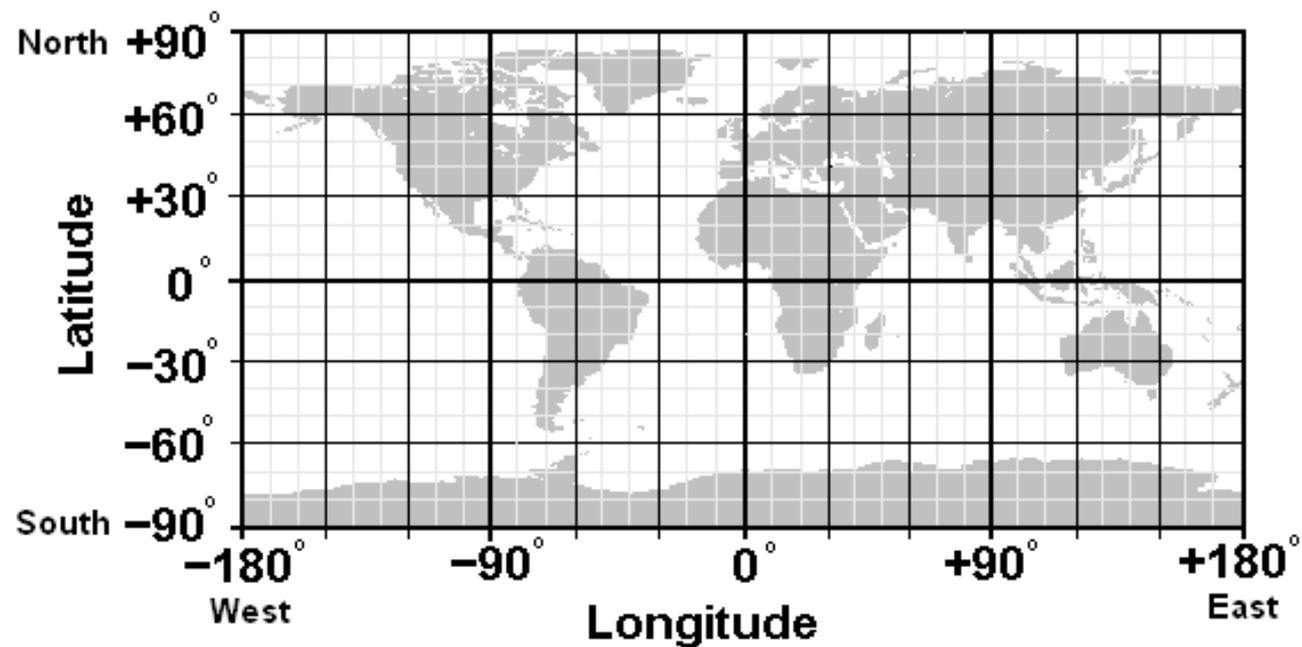
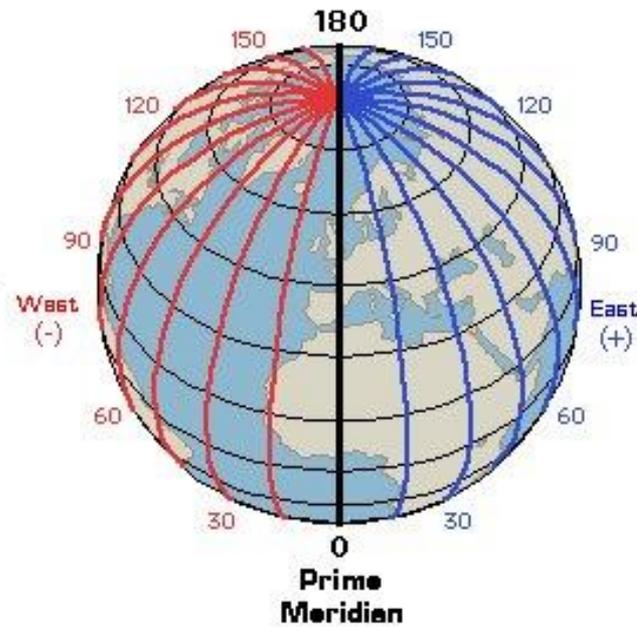
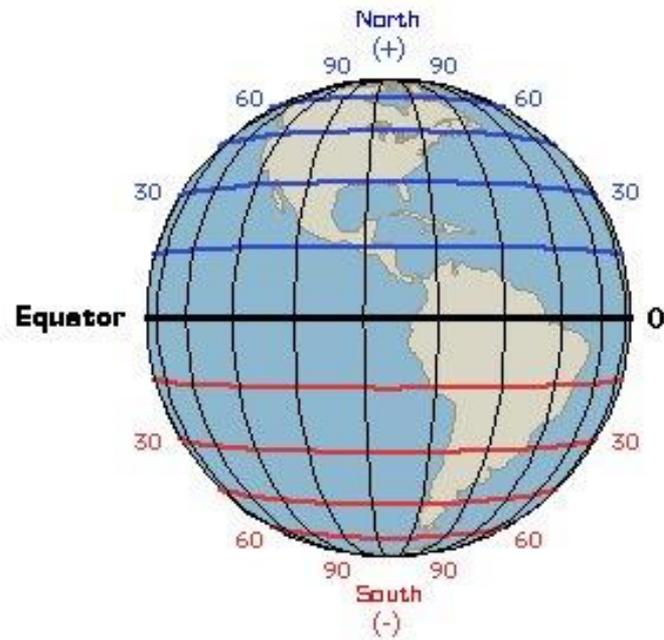
- **Longitude** – also known as **meridians**, circle the earth from Pole to Pole and measure distances east or west of the starting line, which lies at 0° longitude and is called the **Prime Meridian**.
- By international agreement, the Prime Meridian is the line of longitude that runs through the Royal Observatory in Greenwich, England.
- Places east of the Prime Meridian are known as **east longitude**, and places west of the Prime Meridian are known as **west longitude**.

Prime Meridian

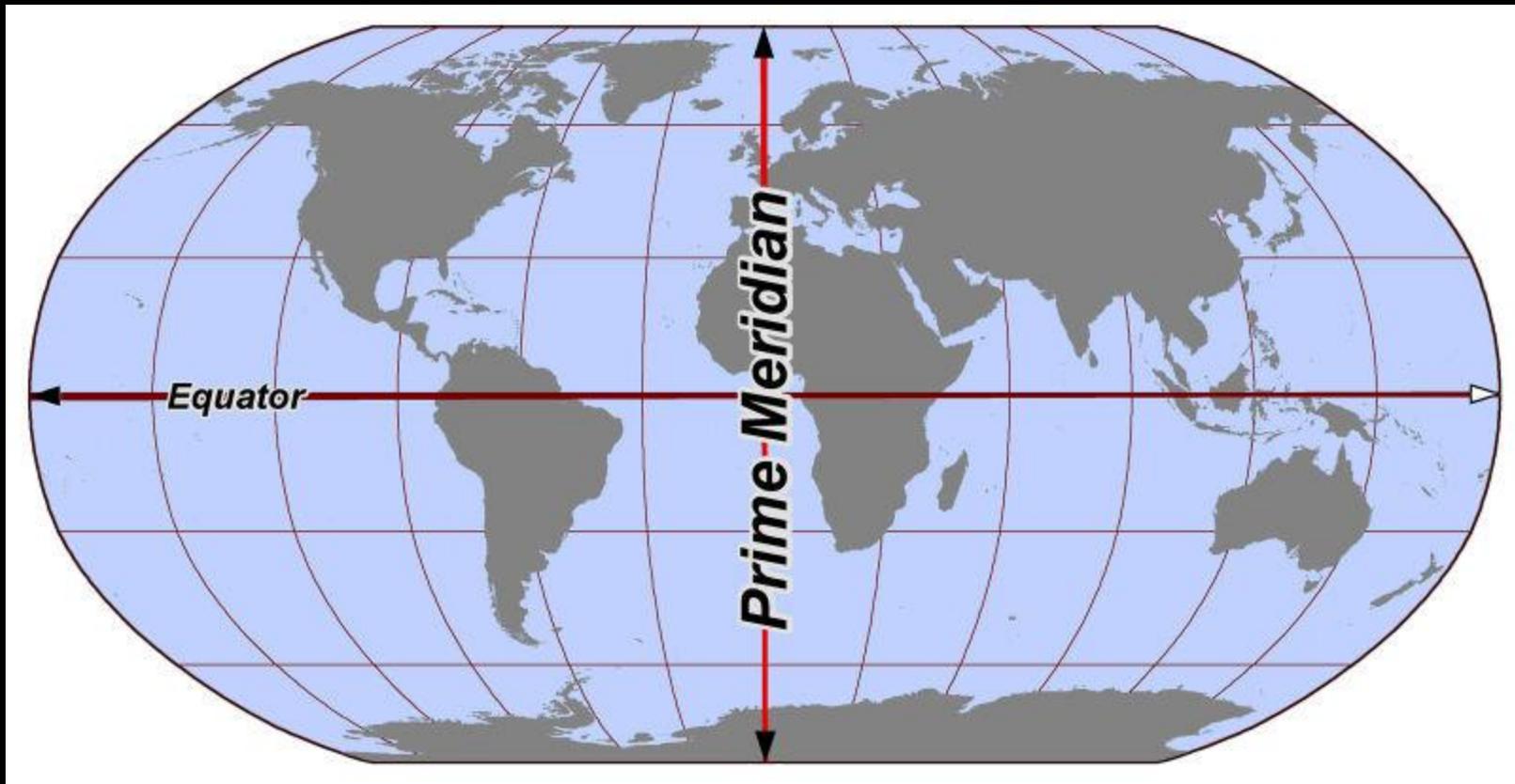


Latitude

Longitude

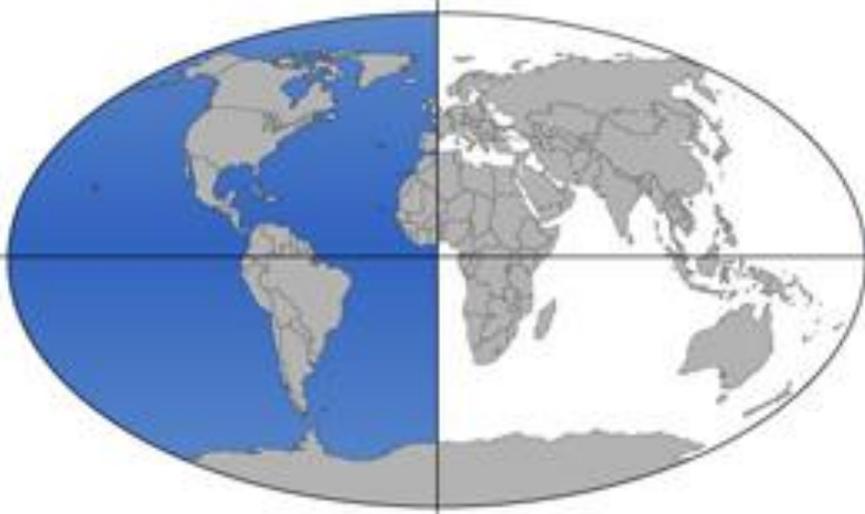


HEMISPHERES – DIVIDES THE EARTH INTO TWO HALVES. THE PRIME MERIDIAN DIVIDES THE EARTH INTO A EASTERN AND WESTERN HEMISPHERE AND THE EQUATOR DIVIDES THE EARTH INTO A NORTHERN AND SOUTHERN HEMISPHERE.

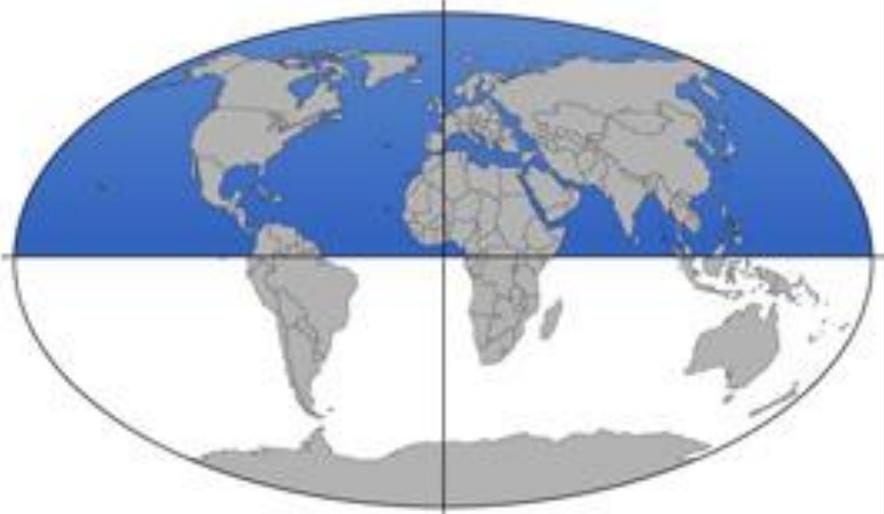


THE HEMISPHERES

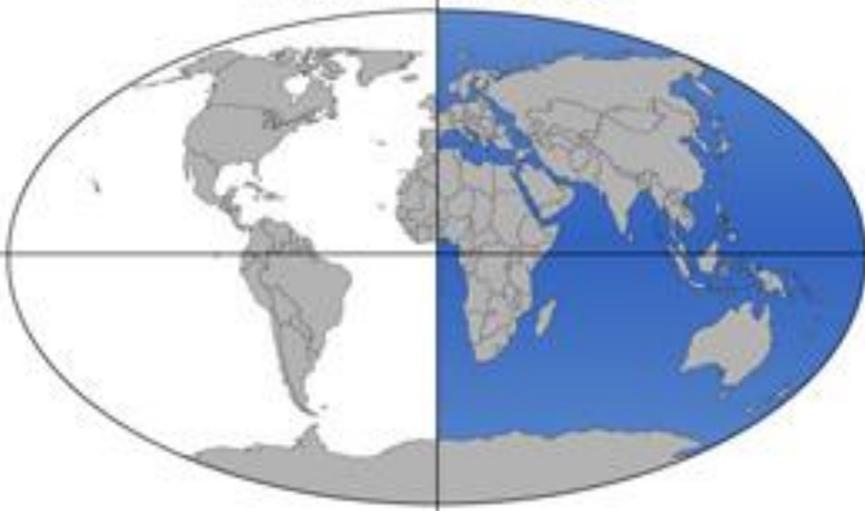
Western Hemisphere



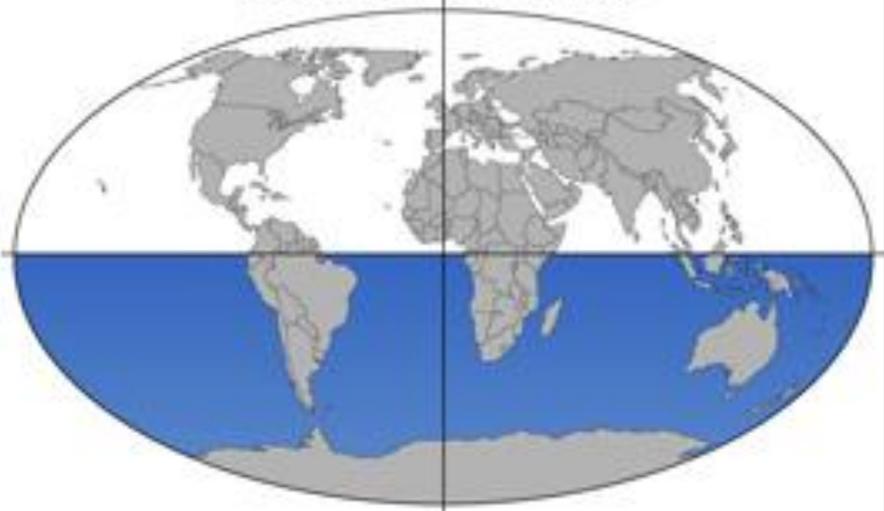
Northern Hemisphere



Eastern Hemisphere



Southern Hemisphere



GETTING IT ALL ON THE MAP

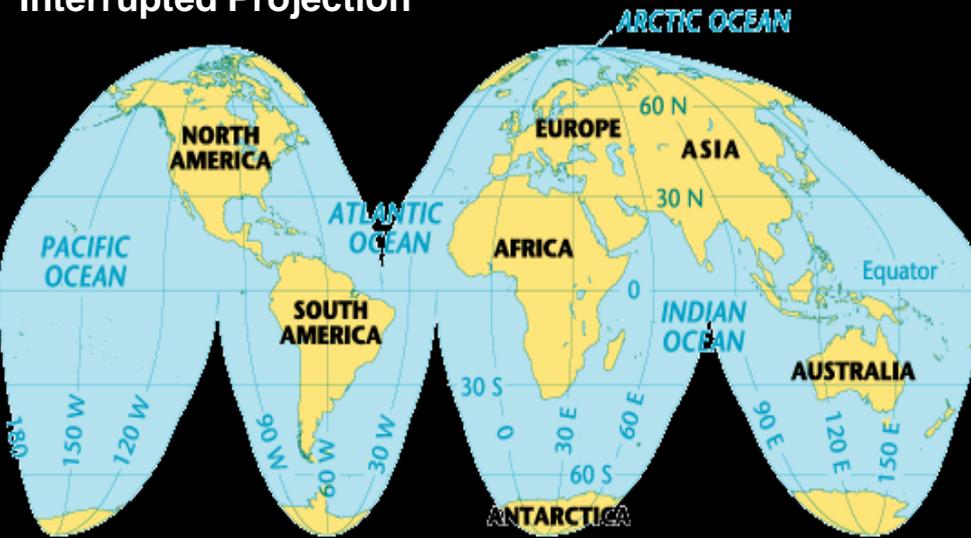
The World: Mercator Projection



- 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.

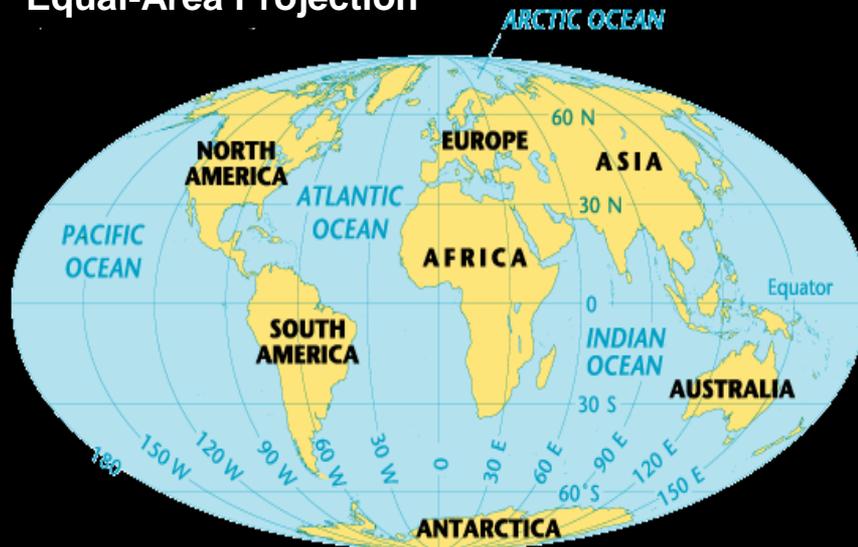
THE WORLD: THREE PROJECTIONS

Interrupted Projection



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 accurately.

Equal-Area Projection

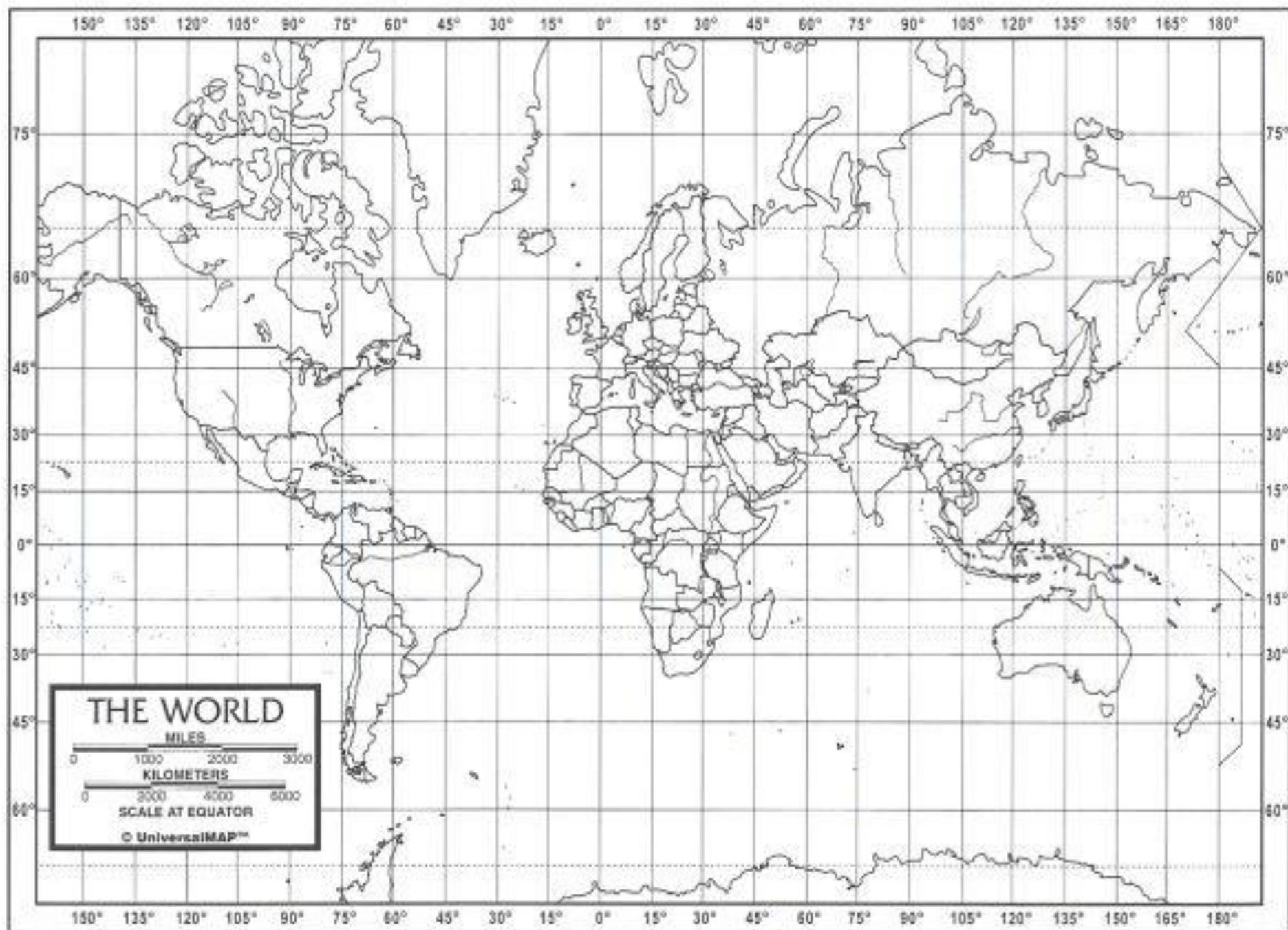


Peters Projection



THE WORLD: A ROBINSON PROJECTION





MAP TEST COMING OVER THE FOLLOWING!

This test will not only include information from your class discussion notes, but also, your homework extended reading assignments and vocabulary.

Understand that your test grades this first 6 weeks will determine whether or not you stay in this class. If on the 6 week IPR you are not passing you will be moved to World History, in accordance with the Pre AP/AP contract you signed.

SPEND THE TIME NEEDED TO BE SUCCESSFUL ON ALL TESTS.

CORE GEOGRAPHIC CONCEPTS

- The basic building blocks of geography are space, place, location, scale, and regions.
- Let's look at each of these concepts in detail.

SPACE

- **Space** -- The extent of area that is occupied by something.
 - It can refer to physical and cultural objects on the surface of the Earth.
- **Relative space** – is concerned with where something is in relation to something else and changes constantly as interrelationships between people, places, and things change.
- **Absolute space** – is a measurable area with definite boundaries.
Absolute space is an essential ingredient in mapmaking (cartography) and spatial analysis of any type.
- **Site** – is the physical location of a place.
- **Situation** – refers to the location based on its relation to other places.
- **EXAMPLE:** the site of Foxburg is on the banks of the Allegheny River in northwestern Pennsylvania. The situation of Foxburg is that it lies equal distance between Erie and Pittsburgh and is 3 miles upstream from the town of Emlenton.

PLACE

- **Place** is another word for location. We examine place very carefully when we get to the study of Human Geography.
 - We often refer to a location's sense of place and are talking about all the attributes – physical, cultural, emotional – that a location has to us personally.
- **Placelessness** – refers to the condition in which a place actually loses its sense of being “special.”
- **Example:** The unique urban or regional flavor of a location becomes diminished or lost as mass merchandising outlets, fast-food restaurants, and brand name retail stores erase its sense of place.

PLACE

- All places share the following attributes:
 - Have location, direction, and distance from other places.
 - Change over time.
 - Interrelate with all other places in some way.
 - Have size and scale.
 - Possess a physical aspect and cultural aspect.
 - Can be grouped into regions based on how they are alike and how they are dissimilar.

LOCATION

- Location – is important to study in both physical as well as human geography.
- Location is related to the global grid system of latitude and longitude.
 - **Absolute location** – is the actual space a place occupies on the earth's surface. It is usually referred to in mathematical form using degrees (latitude and longitude coordinates).
 - **Relative location** – refers to the location of a place in relation to the location of other places. Relative locations vary greatly and depend on your perspective.
 - **Examples:** The phrases, “down South”, “up North”, “back East,” and “out West,” are examples of how history and tradition still flavor our speech in the US.
 - **Examples:** An example of relative location would be “Pittsburgh is located at the confluence of the Monongahela and Allegheny Rivers approximately 90 miles north of Morgantown, West Virginia.”

Can you connect these terms with other terms you have learned today? Talk with your group and discuss these connections.

REGIONS

- Regions are an important concept that allow us to study space, place, and locations in better detail by allowing us to generalize about a common characteristic and thus group them.
- **Region** – is an area that displays a common trait such as culture, government type, language, landform, etc.
 - **Formal (Uniform) Region** – A region with a high level of consistency in a certain cultural or physical attribute.
 - **Examples:**
 - French-speaking region of Canada
 - Dairying region of North America
 - Political boundaries demarcating states (such as Poland, Thailand, etc.) or their subdivisions (Iowa, Manitoba, etc.)
 - Tropical region
 - Desert region

REGIONS

- **Functional (nodal) region** – a region with a node, or center hub, surrounded by interconnecting linkages. Usually connections relate to trade, communications, transportation, etc.
- **Examples:**
 - Metropolitan Area of Houston
 - Bank of America
 - Port of New Orleans and its hinterlands.
 - Mall of America's surrounding area

REGIONS

- **Perceptual (Vernacular) region** – a region defined by feelings and prejudices that may or may not be true. A construct of one's mental map.
- **Examples:**
 - Dixie
 - Bible Belt
 - Rust Belt
 - Hillbilly region
 - Society hill
 - Urban street gang's turf
 - Chinatown

NEW GEOGRAPHIC TECHNOLOGIES

- The use of satellite imagery provides us with images of Earth's features that aid us in mapping and studying various processes as they occur.
- **Remote sensing** – is the process of detecting the nature of an area from a distance. It has actually been around for over 150 years first by attaching cameras to airplanes, kites, and hot-air balloons in order to photograph a place from a distance. Drones and satellites are used.
- Processes such as water pollution, desertification, and even military surveillance can be accomplished with remote sensing.
- Today, American Landsat satellites relay images from outer space to receiving stations, which digitally convert them into images for scientific study and mapping use.
- **GIS – Geographic Information Systems** marry mapping software with a database for the purpose of overlaying (layering) various data layers on a basic locational map grid.
- **GPS – Global Positioning System** is a space-based navigation system that provides location and time information in all weather conditions, anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites.

CORE GEOGRAPHIC CONCEPTS TEST COMING SOON!

- Know these concepts well.
- Be able to answer the following types of questions.
 - Multiple Choice
 - Matching
 - Essay

**As I stated before, these tests will determine whether or not
You stay in this class after the 6 week grading period.**

STUDY AND STUDY TO LEARN, NOT TO MEMORIZE!



PHYSICAL GEOGRAPHIC CONCEPTS

- **Physical Characteristics** – Features of the Earth's surface, such as landforms, water systems, climate patterns, and plant and animal life.
- **Physical Processes** – Physical processes are nature's methods of operation that produce, maintain, or alter Earth's physical systems.
 - Physical processes can be grouped into four categories: those operating in the
 - **atmosphere**, e.g., climate and meteorology; gases surrounding the earth.
 - **lithosphere**, e.g., plate tectonics, erosion, and soil formation;
 - **hydrosphere**, e.g., the circulation of oceans and the hydrologic cycle, water cycle (precipitation, evaporation, condensation;
 - **biosphere**, e.g., plant and animal communities and ecosystems. Physical processes shape the physical environment producing landforms and other features of Earth.

CONTINENTAL DRIFT THEORY

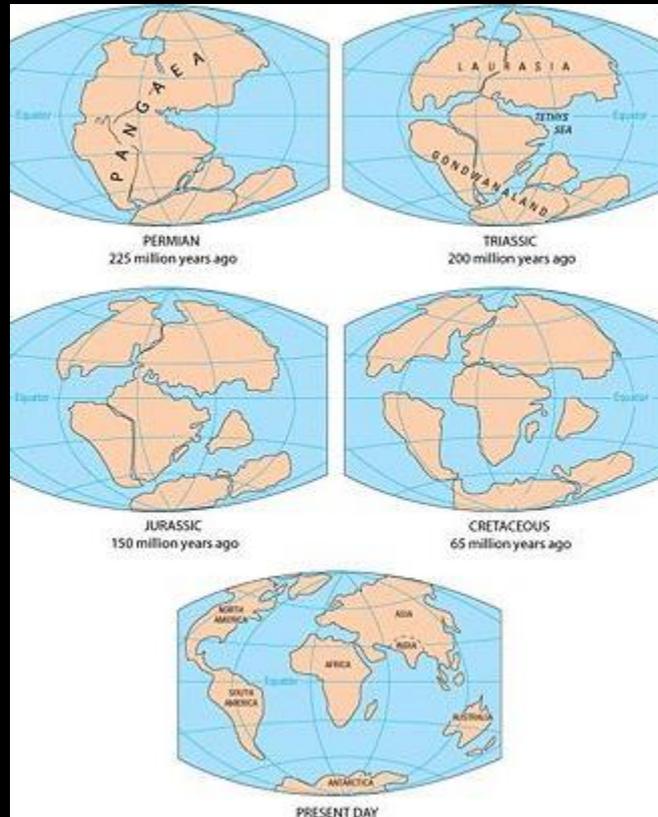
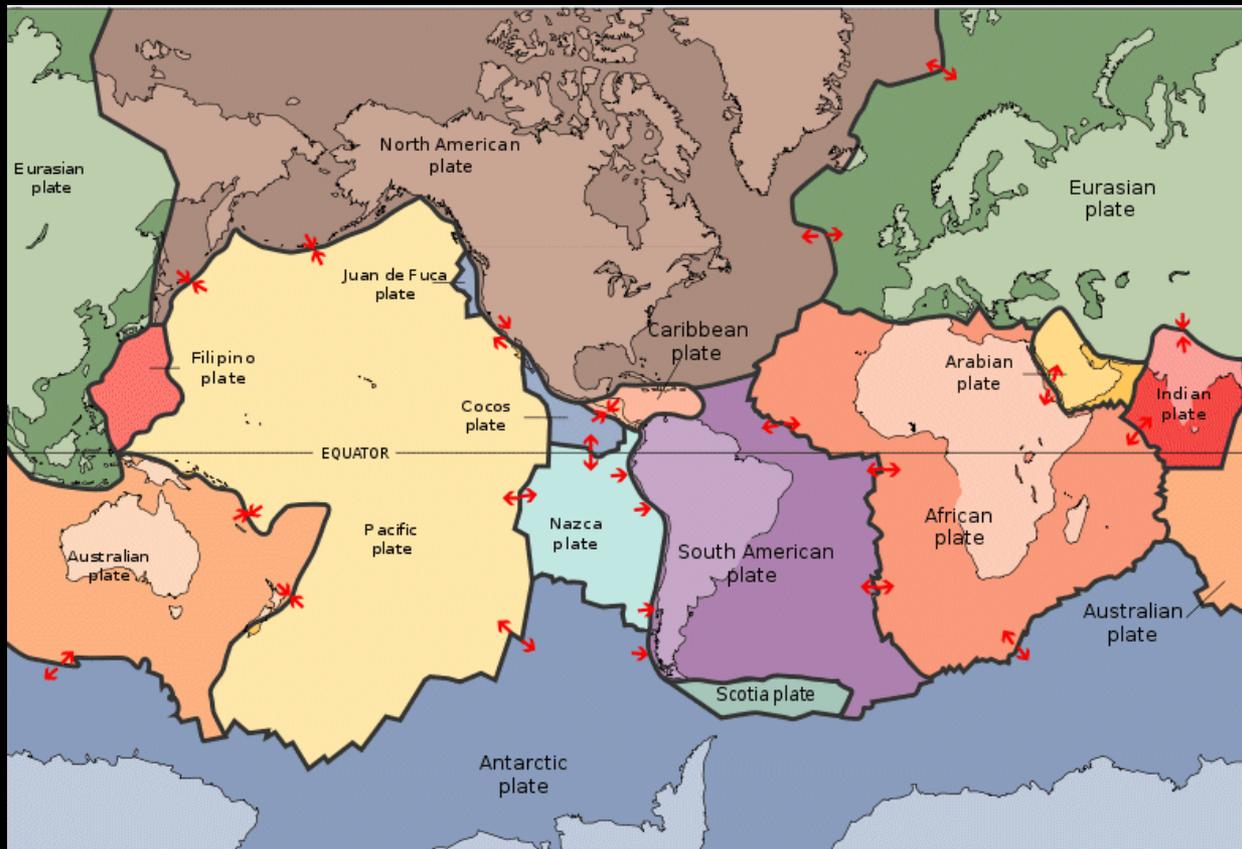
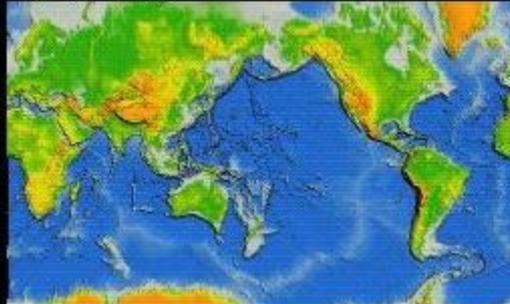


PLATE BOUNDARIES

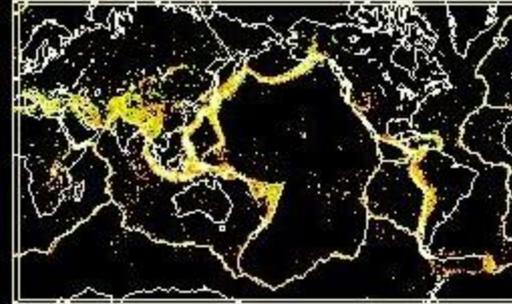


Pacific Ring of Fire -- is an area where large numbers of earthquakes and volcanic eruptions occur in the basin of the Pacific Ocean. The Ring of Fire has 452 volcanoes and is home to over 75% of the world's active and dormant volcanoes.

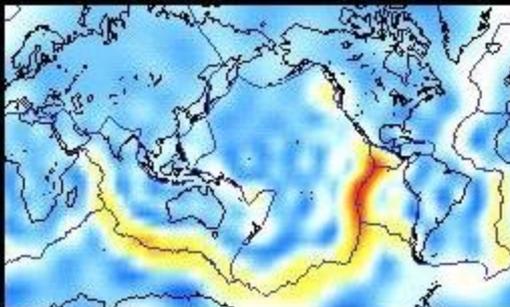
Topography



Earthquakes



Heat flow



Volcanoes

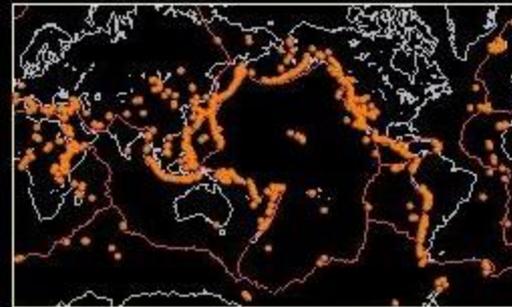


PLATE TECTONIC TERMS

- **Subduction** -- Heavier sea plate dives beneath the lighter continental plate
 - Mountains are formed
 - Andes Mountains
 - Natural Hazards include earthquakes and volcanoes
- **Spreading** -- Sea plates pull apart
 - Undersea mountains and ridges are formed.
 - Mariana Trench
 - Volcanic Mountains under the oceans. Some taller than Mt. Everest
- **Transformation** -- Plates slide past each other or pieces of the same plate move at different speeds
 - Faults, Escarpments, or cliffs.
 - San Andreas Fault in California
 - Earthquakes

PLATE TECTONICS

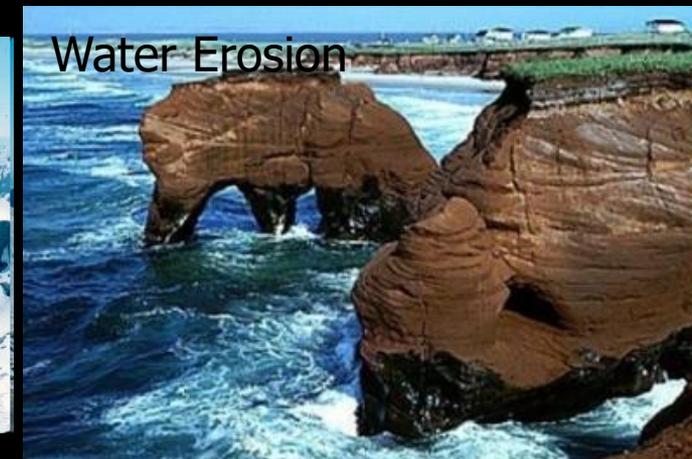
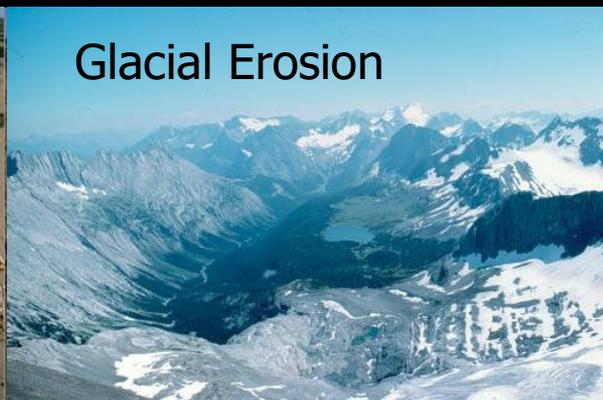
Type of Margin	Divergent	Convergent	Transform
Motion	Spreading	Subduction	Lateral sliding
Effect	Constructive (oceanic lithosphere created)	Destructive (oceanic lithosphere destroyed)	Conservative (lithosphere neither created or destroyed)
Topography	Ridge/Rift	Trench	No major effect
Volcanic activity?	Yes	Yes	No

(a)

(b)

(c)

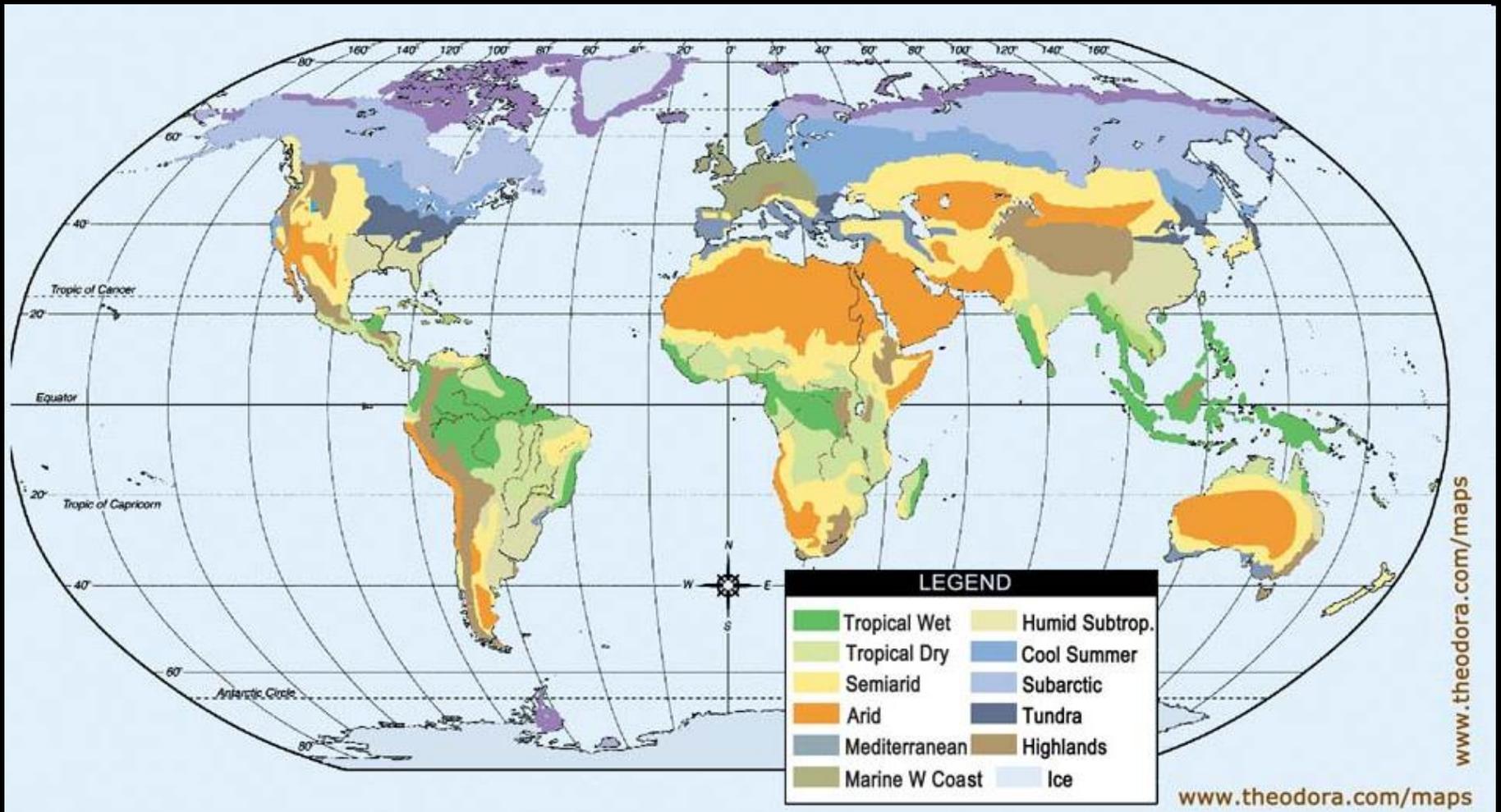
- **Erosion** – the movement of weathered materials such as gravel, soil, and sand.
 - **Water**
 - **Wind**
 - **Glacial**
- **Weathering** – the breakdown of rocks at or near the earth's surface into smaller pieces.



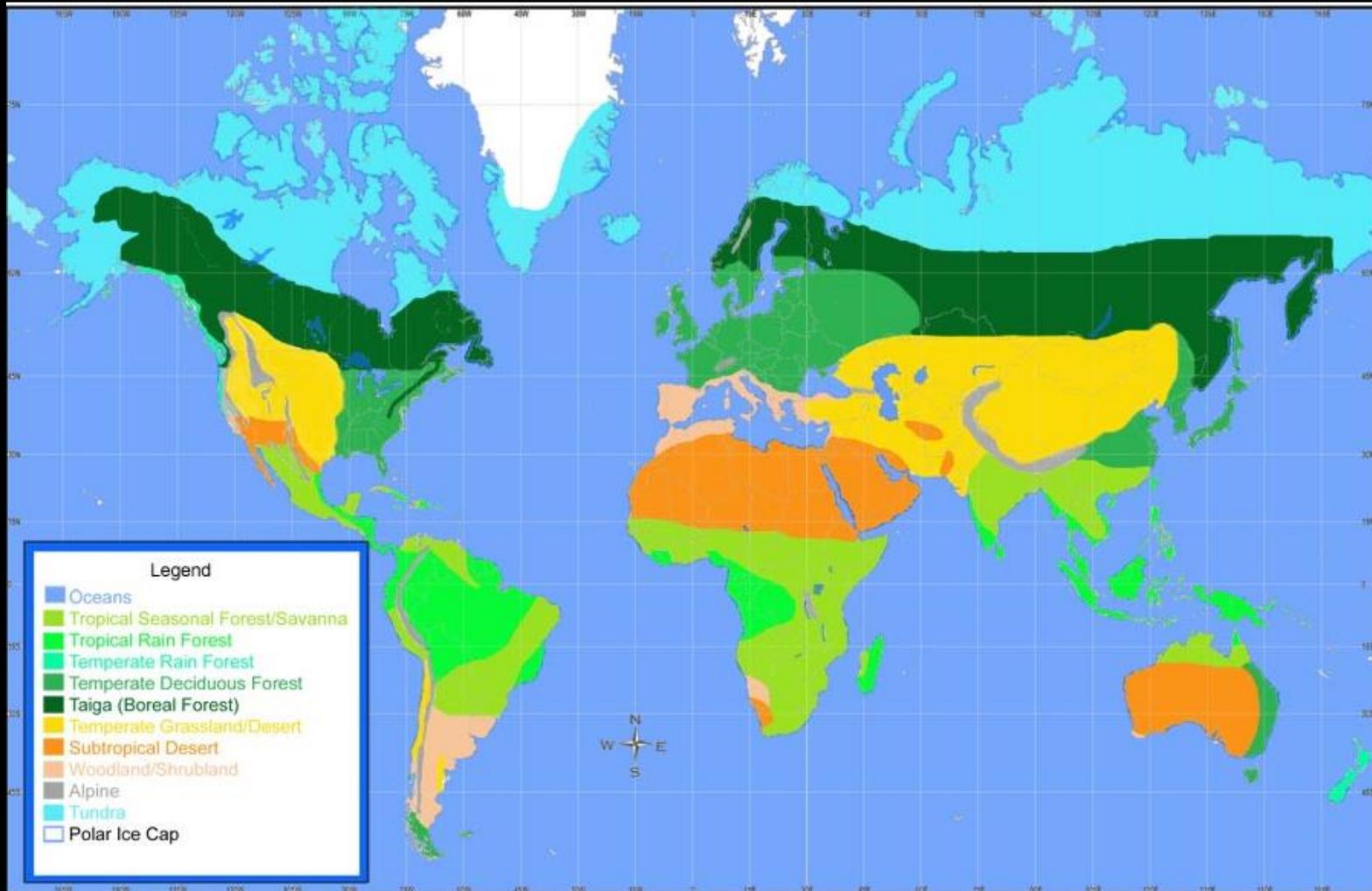
CLIMATE, BIOMES AND ECOSYSTEMS

- **Climates** --Regional long-term trends in weather and atmospheric conditions.
- **Biomes** --A regional ecosystem characterized by distinct types of vegetation, animals, and microbes that have developed under specific soil and climatic conditions.
- **Ecosystems** -- A biological community of interacting organisms and their physical environment.

CLIMATE MAP



BIOMES MAP



World Biomes



Rain forest

A belt of lush vegetation found near the equator. Often referred to as Jungle.

The two largest Rain Forests are the Amazon in South America and the Congo in Central Africa



Savanna

Tropical and Sub-Tropical grasslands in the mid latitudes.

Usually found on the edges of the rain forests.



Desert

A region that receives less than 10 inches of precipitation per year.

They can be caused by climate, or be rain-shadow because of mountains



Steppe

A flat plain with no trees. Short grasses are said to be the norm in the steppe. It may be semi-desert, or covered with grass or shrubs or both. Regions too dry to support a forest, but not dry enough to be a desert.





Mid Latitude Forest

Temperate forests made up of both Deciduous and Non-Deciduous Trees



Grasslands/Prairie

Large areas of flat grasslands.

Temperate





Taiga

Large Coniferous
Forest Biome
found south of the
Tundra

Found in Russia
and Canada.

The largest forest
in the world.



Tundra

Cold treeless plain north of the Taiga. The soil is frozen most, or all, of the year.
This soil is called permafrost.



ECOSYSTEM MAP



PHYSICAL GEOGRAPHY TERMS TEST

- Know all the physical geography terms we have discussed over this past week. Be prepared to answer Multiple Choice, as well as short answer and essay questions about these terms.
- **STUDY TO KNOW AND UNDERSTAND, NOT SIMPLY TO MEMORIZE!**