

The background is a collage of various geographical maps and symbols. In the top left, there is a compass rose with a large 'W' below it. To its right is a map showing a network of roads and a label 'LAKE HO... (170 Meters Above Sea Level)'. In the bottom left, a map of San Francisco is visible with labels like 'SAN FRANCISCO', 'Golden Gate', and 'San Mateo'. In the bottom right, a map of Washington D.C. is shown with labels like 'WASHINGTON DISTRICT OF COLUMBIA', 'Takoma Park', and 'Brentwood'. The central text 'Chapter 1: Using Geography Skills' is overlaid on this collage.

Chapter 1: Using Geography Skills



Section 1:
Understanding the Earth



Things to Think About...

- How does the movement of the Earth around the sun affect our environment?
- What is the effect of latitude on climate?

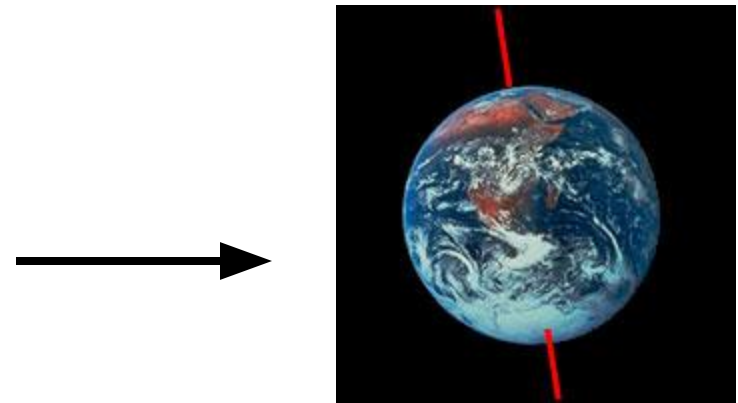
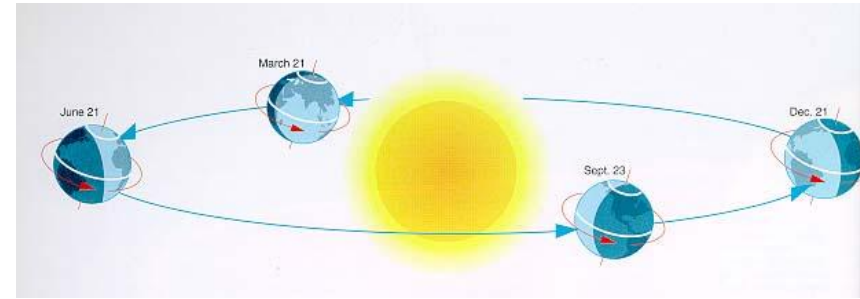


The Earth, Sun, and Our Environment

- The sun is a star in our galaxy called the Milky Way
- It provides light & energy needed for life on Earth
- It affects our environment (our surroundings) in countless ways.

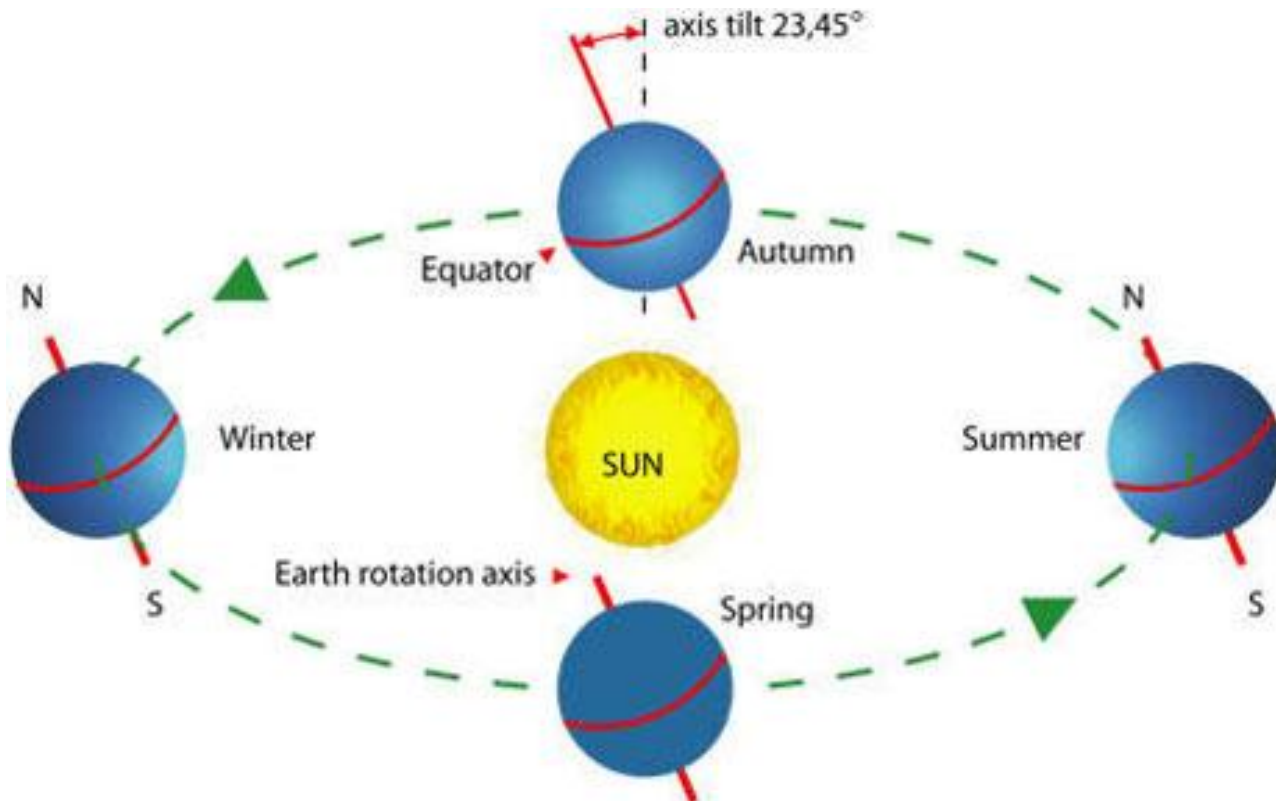
Day & Nights

- The Earth travels around the sun in an oval shaped path called an orbit.
- It takes 365 $\frac{1}{2}$ days for it to complete one revolution or journey around the sun.
- The Earth spins around on its axis— an imaginary line running through its North & South poles.



Seasons

- During the year days or nights might seem longer because of the Earth's tilt on its axis.
- The Earth's tilt/orbit cause changes in temperature.



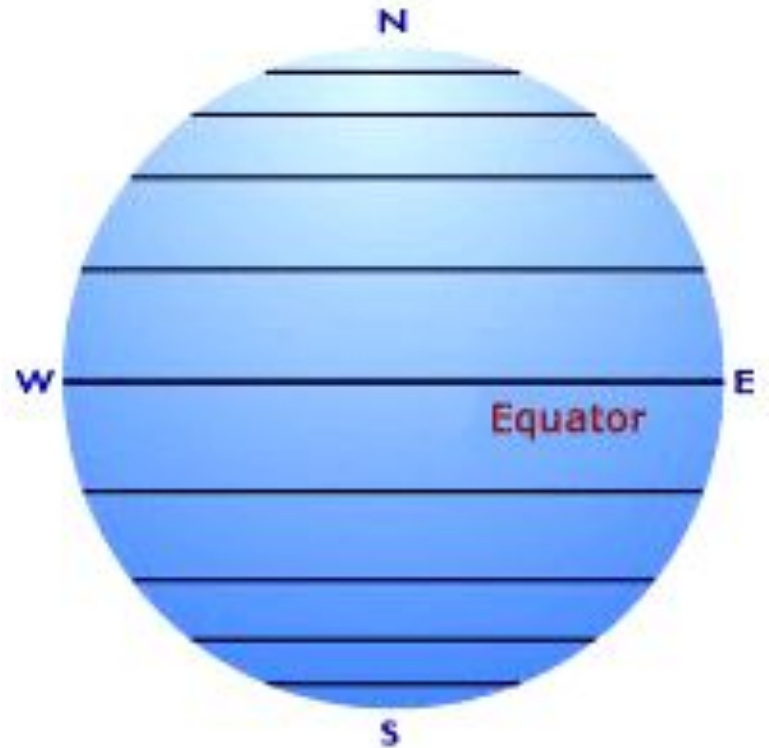
A decorative header at the top of the slide features a horizontal row of eight interlocking gears. Each gear is light blue with a white outline and contains a stylized globe of the Earth with green continents and blue oceans. The gears are set against a light yellow background with a subtle, darker yellow pattern. The word "Seasons" is written in a large, black, sans-serif font across the center of the gears.

Seasons

- The amount of warmth one feels depends on how directly the sun falls on a region.
- The amount of sunlight also affects how much food is produced.

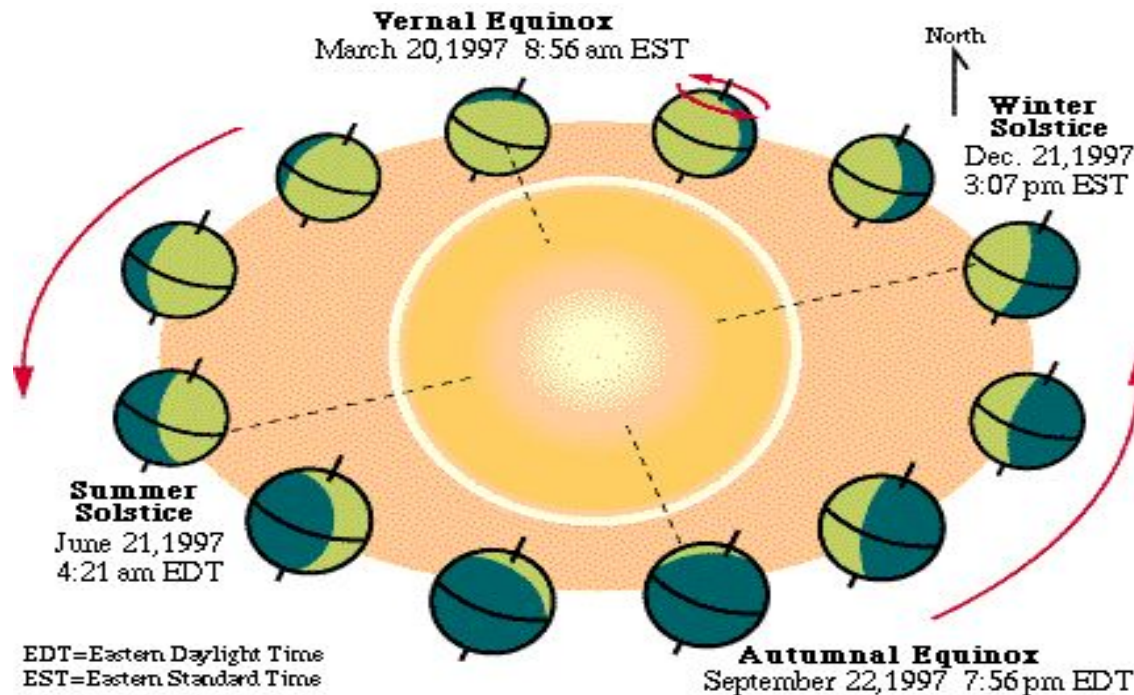
Effect of Latitude

- Imaginary lines, called lines of latitude, are east-west circles around the globe
- They divide the Earth into regions according to the sunlight they receive
- The equator is a latitude line that circles the Earth exactly halfway between the North & South pole.



Effect of Latitude

- On/near March 21 & September 23, the sun is directly over the equator making both days and nights exactly the same length
- These days are the spring and fall equinoxes.



Effect of Latitude

- Two other major lines of latitudes are the Tropic of Cancer and the Tropic of Capricorn





Effect of Latitude

- There are times in the year when the sun is directly over both the Tropic of Cancer and Capricorn creating the **summer** & **winter solstices** in the Northern Hemisphere
 - summer solstice June 21 or 22 when over the Tropic of Cancer
 - winter solstice December 21 or 22 when over the Tropic of Capricorn
- During these times, the seasons are opposite in the Southern Hemisphere.

Question: What is the significance of June 21 and December 21?

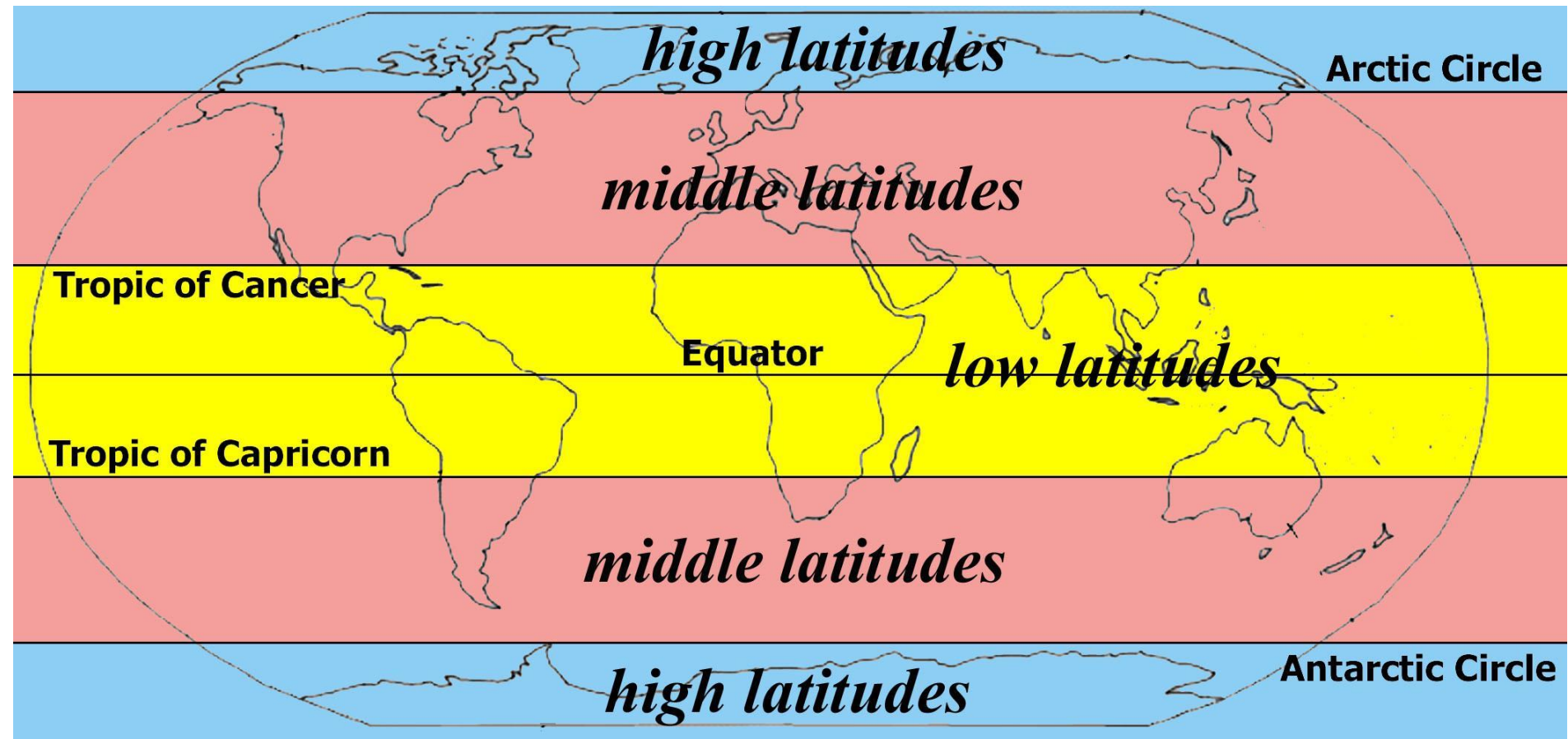




Effect of Latitude

- The area between the Equator, the Tropics, and the Arctic/Antarctic circles also have specific names and characteristics.
 - low latitudes: area between the Tropics of Cancer and Capricorn; receives direct sunlight; almost always hot
 - high latitudes: area between the Arctic/Antarctic Circles and the North/South poles; a.k.a. “polar zones”; no direct sunlight; always cold
 - middle latitudes: area between the Tropics and Circles; a.k.a. “temperature zones”; have all seasons: spring, summer, fall, winter

Effect of Latitude





Review...

- Orbit
- Revolution
- Rotation
- How does latitude affect climate?
Give an example
- How does the Earth's rotation affect our environment?



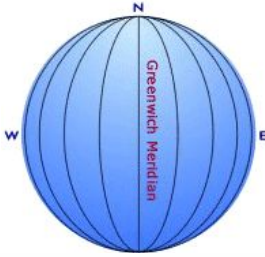
So, What's the Big Idea?

**The relationship between the Earth
and the sun creates our days,
seasons, and climate, and
influences our environment.**

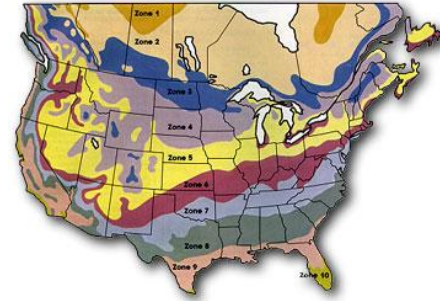


- **Create a graphic organizer that illustrates the main idea and its supporting details. You can create your own main idea or use the one provided.**
- **You may help one another, but it's NOT a group or pair assignment. Everyone needs to turn one in.**

Northern Hemisphere



Southern Hemisphere

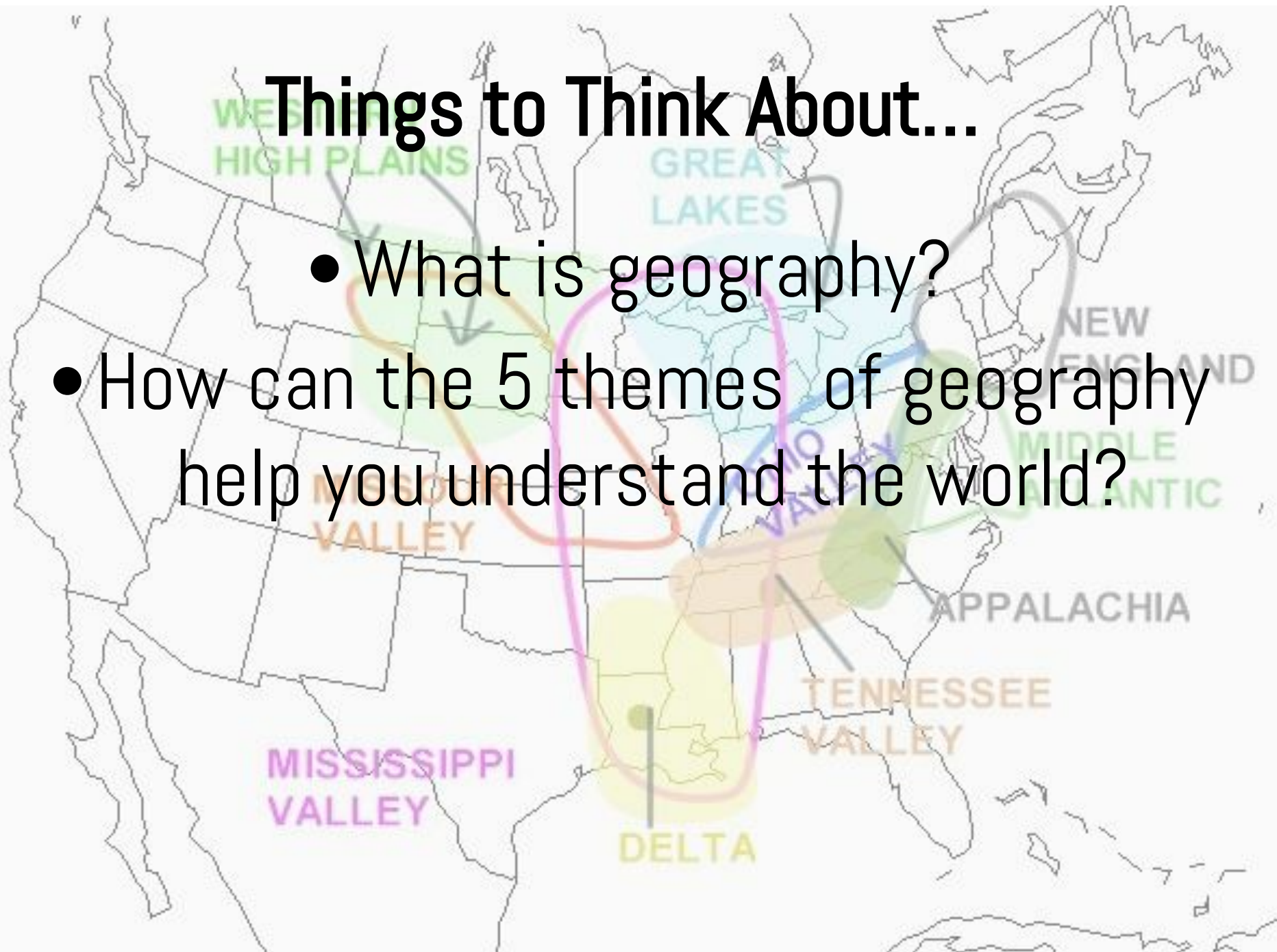


Section 2: Five Themes of Geography



Things to Think About...

- What is geography?
- How can the 5 themes of geography help you understand the world?



Geography



The study of Earth from different points of view. Geographers (people who study geography) study:

- plant life
- landforms
- people
- how people & the Earth affect each other

Themes of Geography

Geographers focus on two questions when working:

- A. Where are things located?
- B. Why are they there?

They organize information into 5 themes:

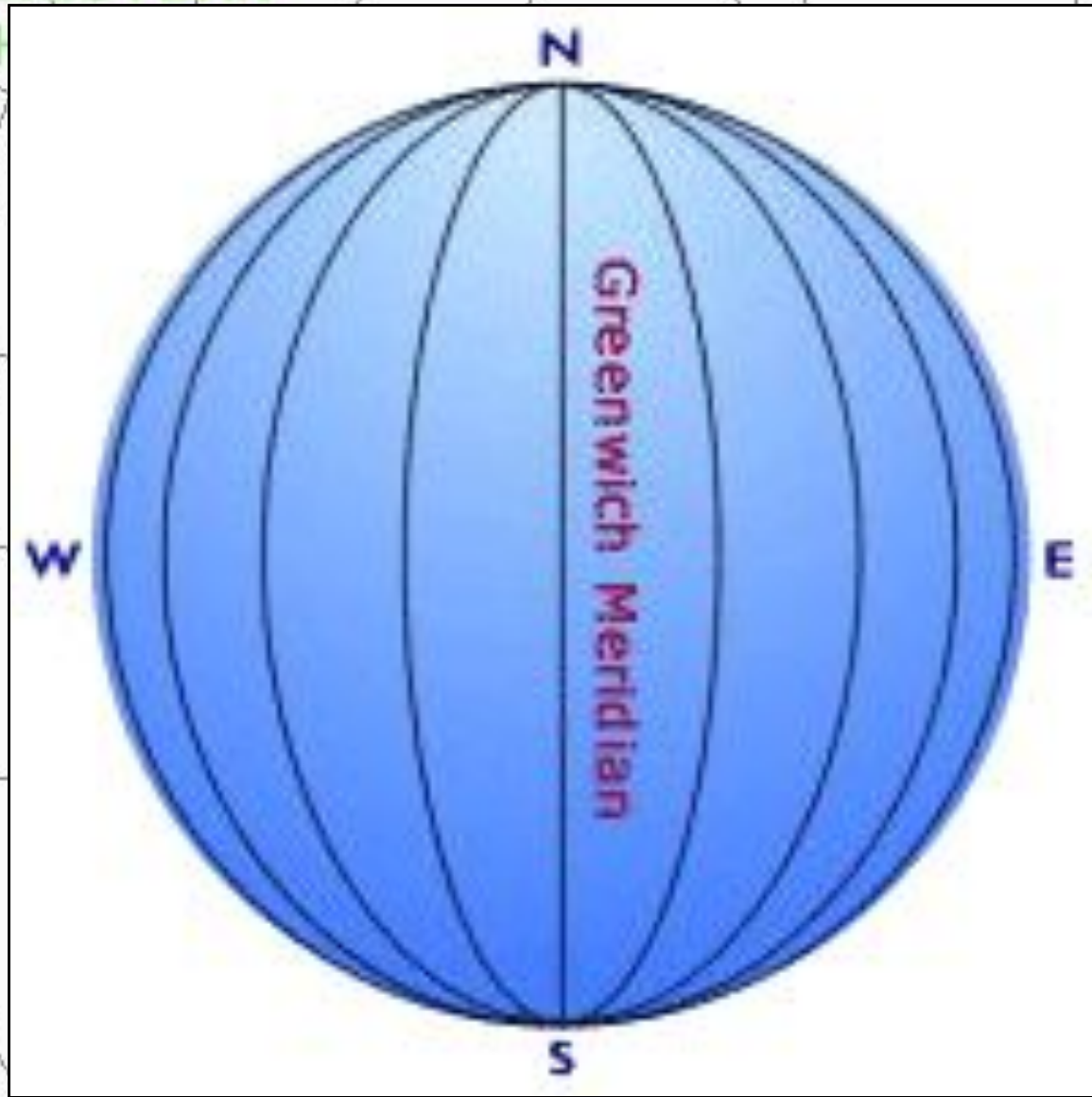
1. location
2. place
3. human-environment interaction
4. movement
5. regions

LOCATION

- Geographers study a place by describing it. Find absolute location using two types of imaginary lines: latitude & longitude
 1. Parallels: east-west circles around the globe; also called latitudes; describe location as north/ south of Equator; divide globe into units called degrees.
 2. Meridians: north-south circles around the globe; also called longitudes; begin & end at the N and S poles; describe location as east/west of Prime Meridian

Prime Meridian (runs through Greenwich, England) is 0° longitude

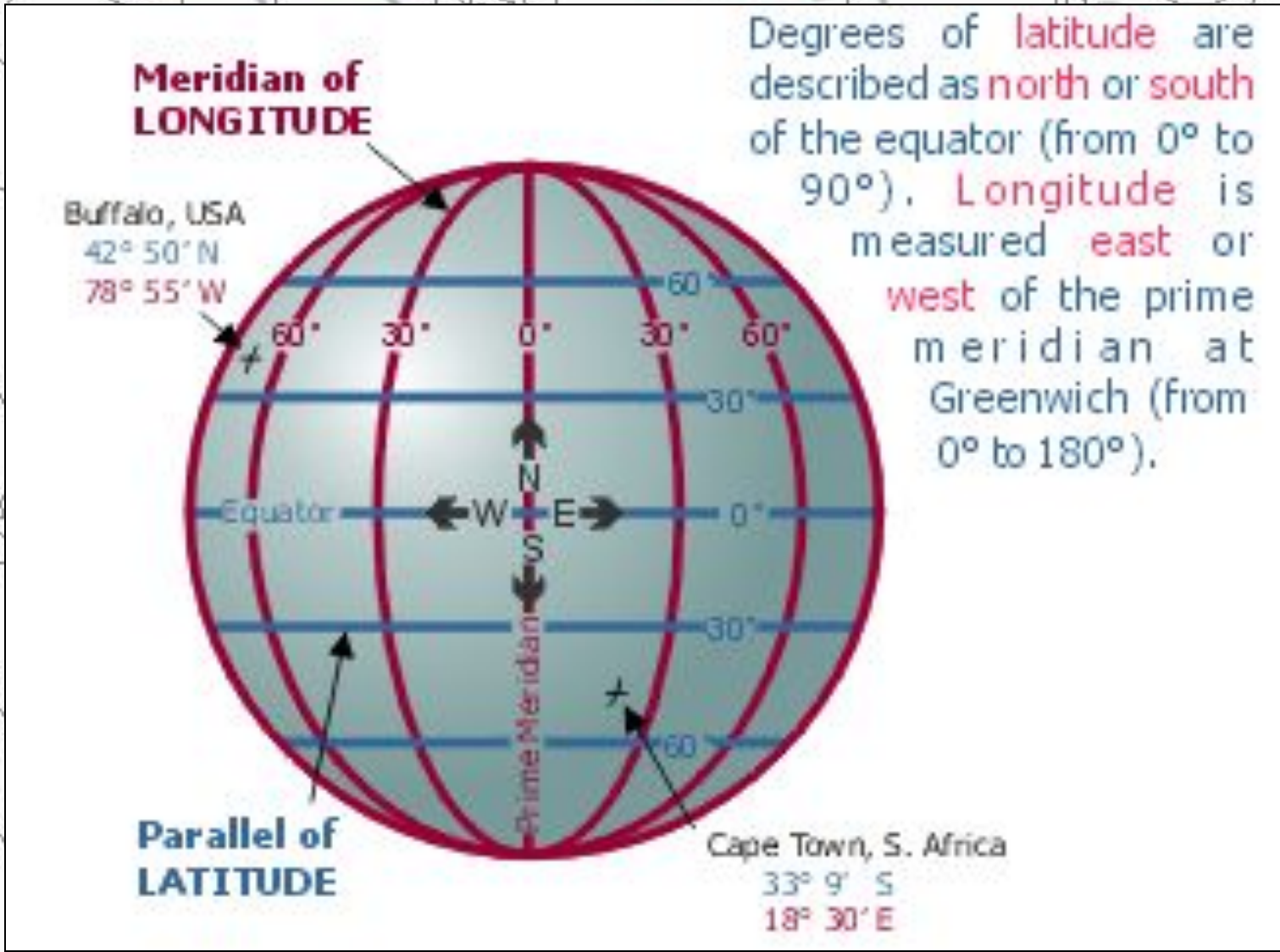
LOCATION



WESTERN
HIGH PLAINS

LOCATION

GREAT



AND

ATIC

A

PLACE

Includes a location's physical & human features. To describe an area you might include the following:

- **Climate (how hot or cold)**
- **Population (number of people living there)**
- **Regions (plains, gulf coast)**



HUMAN-ENVIRONMENT INTERACTION

Focuses on how people affect or change the physical characteristics of their environment OR how their environment affects them

Example #1: environment affecting people:

*Mexico had very little rain and crops were getting ruined,
so they had to borrow water from the USA.*

Example #2: people affecting environment:

*A lot of people were migrating to the west in the 1800s,
so people started chopping down trees to make room and*

to build their homes. Huge forests were

MOVEMENT

Explains the relationship between places and how people, goods, and ideas get from one place to another.

Example:

When the Spanish came to Mexico, they brought their religion, animals, and foods with them. This eventually helped create what we know about the Mexican culture (Catholicism, importance of horses, spices)



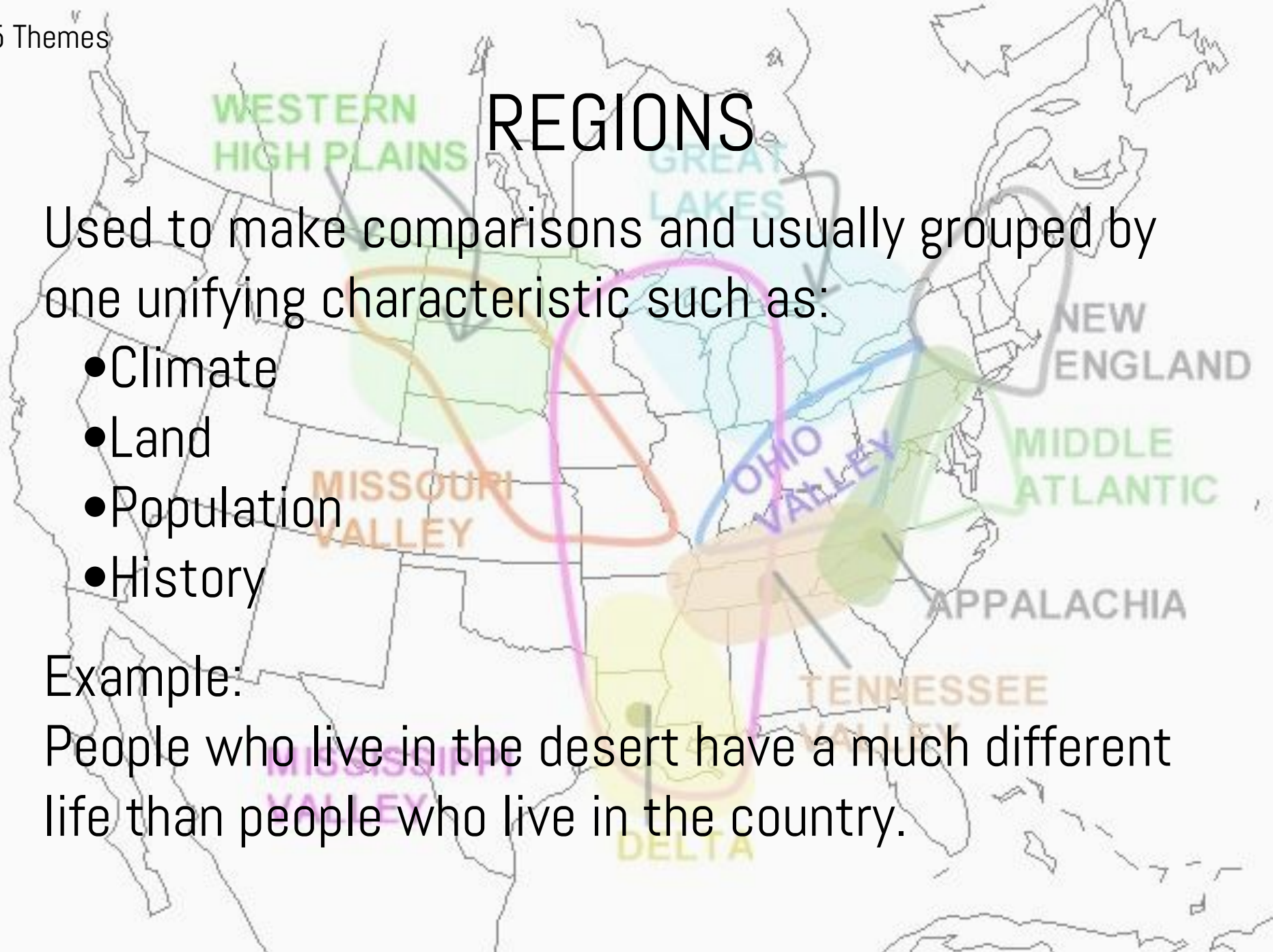
REGIONS

Used to make comparisons and usually grouped by one unifying characteristic such as:

- Climate
- Land
- Population
- History

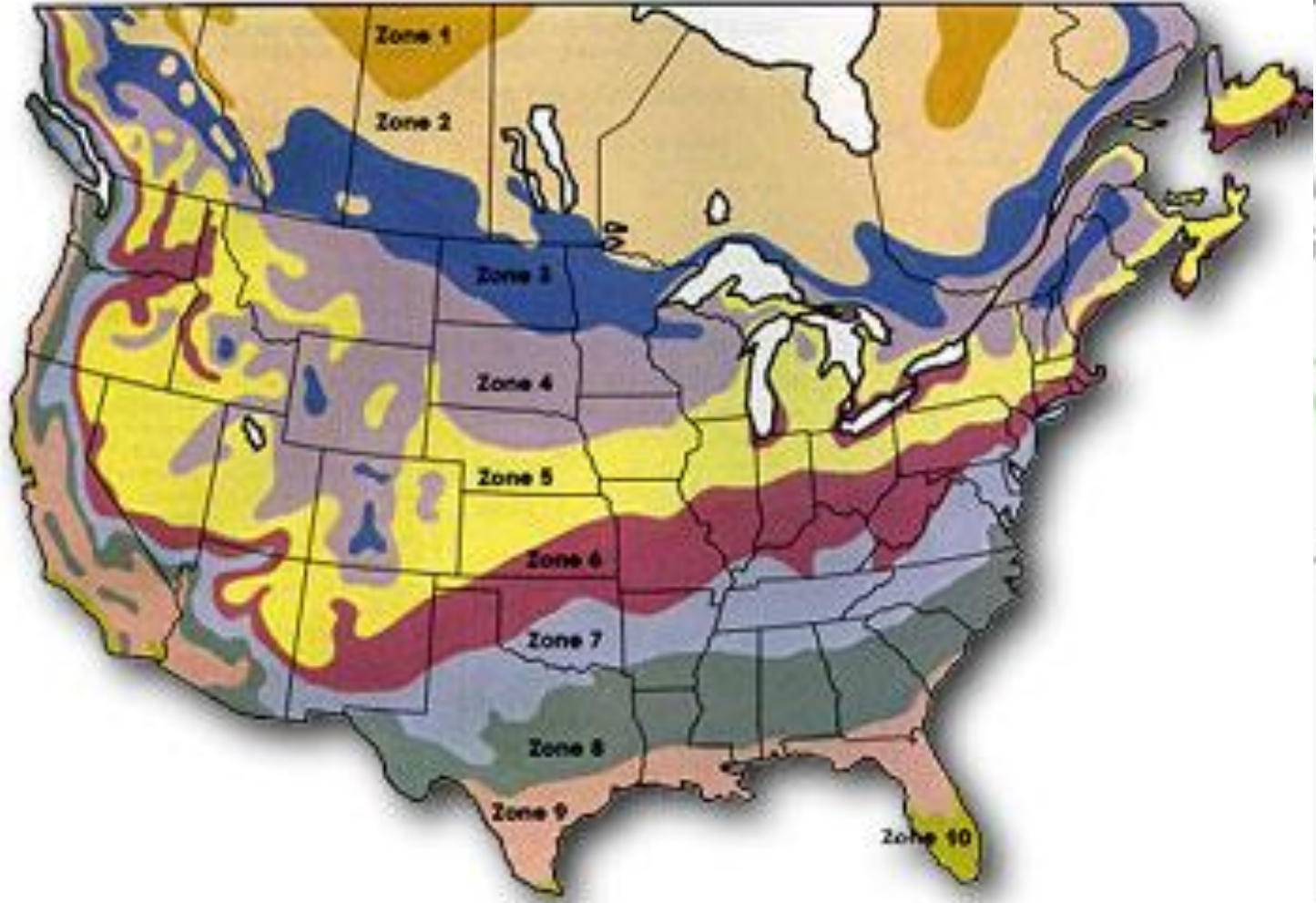
Example:

People who live in the desert have a much different life than people who live in the country.



WESTERN
HIGH PLAINS

REGIONS



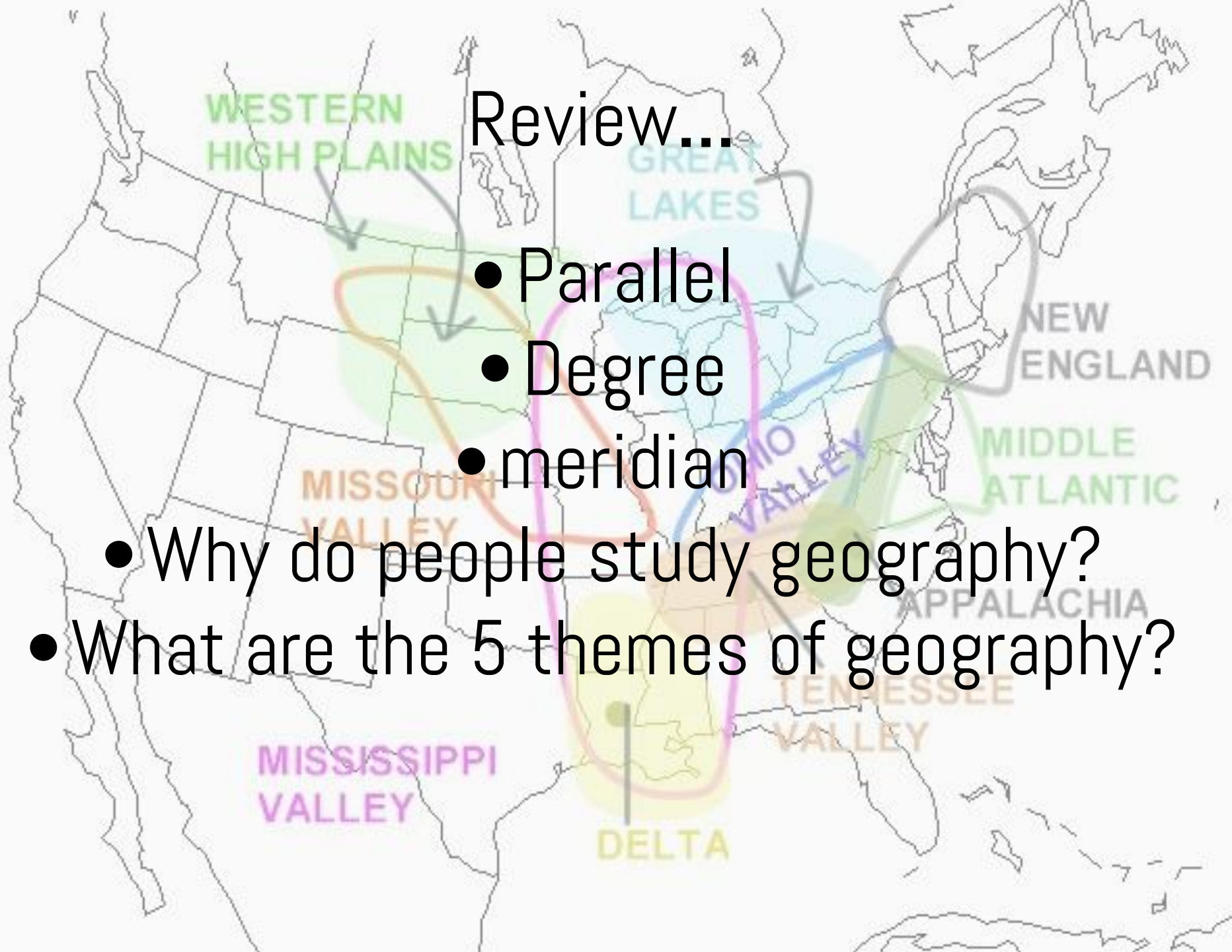
LAND

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NTIC

HIA

Review...

- Parallel
- Degree
- meridian
- Why do people study geography?
- What are the 5 themes of geography?



A map of the United States with several regions highlighted in different colors and labeled. The labels include: WESTERN HIGH PLAINS (green, top left), GREAT LAKES (light blue, top center), NEW ENGLAND (grey, top right), MIDDLE ATLANTIC (green, right), APPALACHIA (grey, bottom right), TENNESSEE VALLEY (orange, bottom right), MISSISSIPPI VALLEY (purple, bottom center), and DELTA (yellow, bottom center). There are also arrows pointing from the WESTERN HIGH PLAINS and MISSISSIPPI VALLEY labels towards the center of the map. The text is overlaid on the map.

So, What's the Big Idea?

**Geographers study the Earth
according to the five themes:
location, place,
human-environment interaction,
movement, and regions**

Your Turn...

WESTERN
HIGH PLAINS

GREAT
LAKES

NEW
ENGLAND

FILL IN

MISSOURI
VALLEY

OHIO
VALLEY

MIDDLE
ATLANTIC

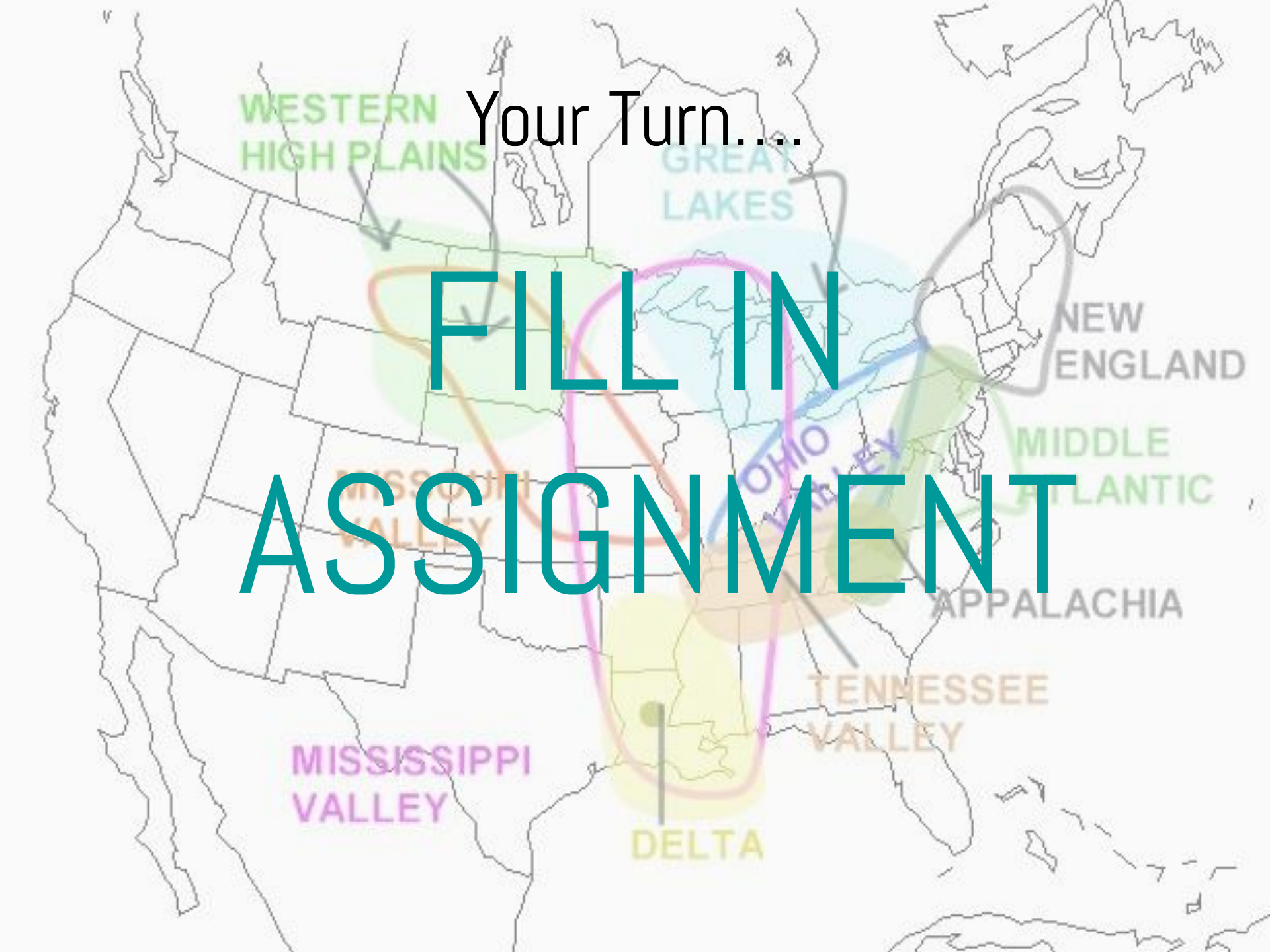
ASSIGNMENT

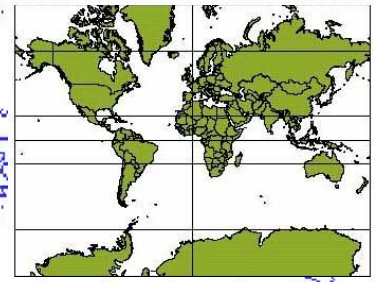
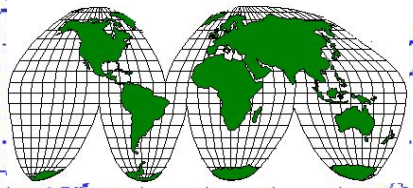
APPALACHIA

TENNESSEE
VALLEY

MISSISSIPPI
VALLEY

DELTA

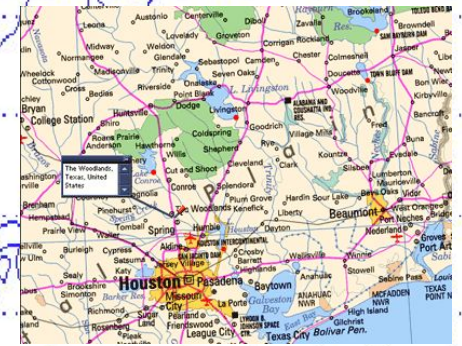
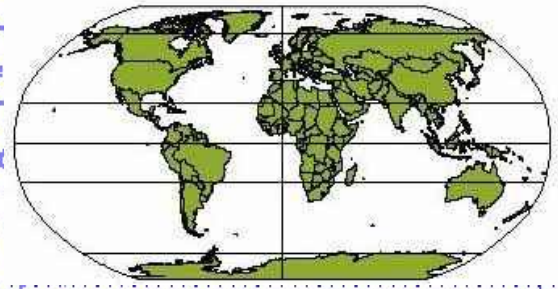
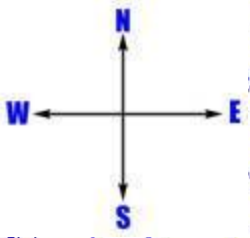
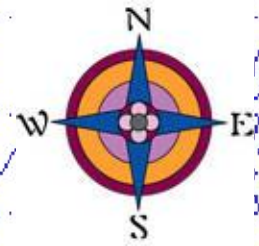




Map Key			
	Whales / Jetties		River Mouth Boundary
	Mammals		CMA boundary
	Marine Parks		Prohibited Mooring Areas
	Archaeological Site		Zoned Mooring Areas
	Bird Feeding (Nesters)		Sand Dunes
	Bird Feeding		Marine Reserve
	Bird Roosting		Mangroves and Marshlands
	Geopreservation Site		Protected Areas
	Marine Mammal Breeding/Feeding		Urban Areas
	Sea Heat Out		Areas of Significant Conservation Value

Section 3:

Using the Tools of Geography



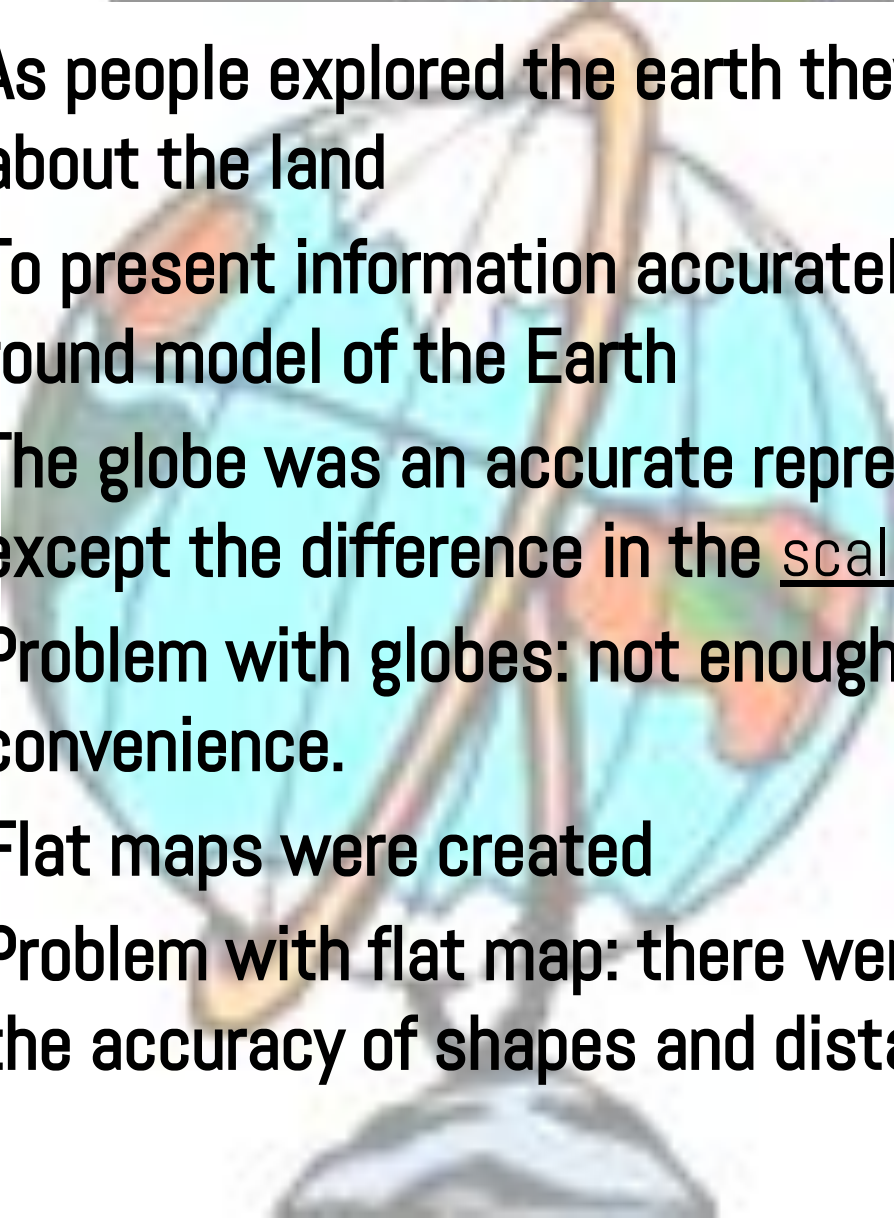
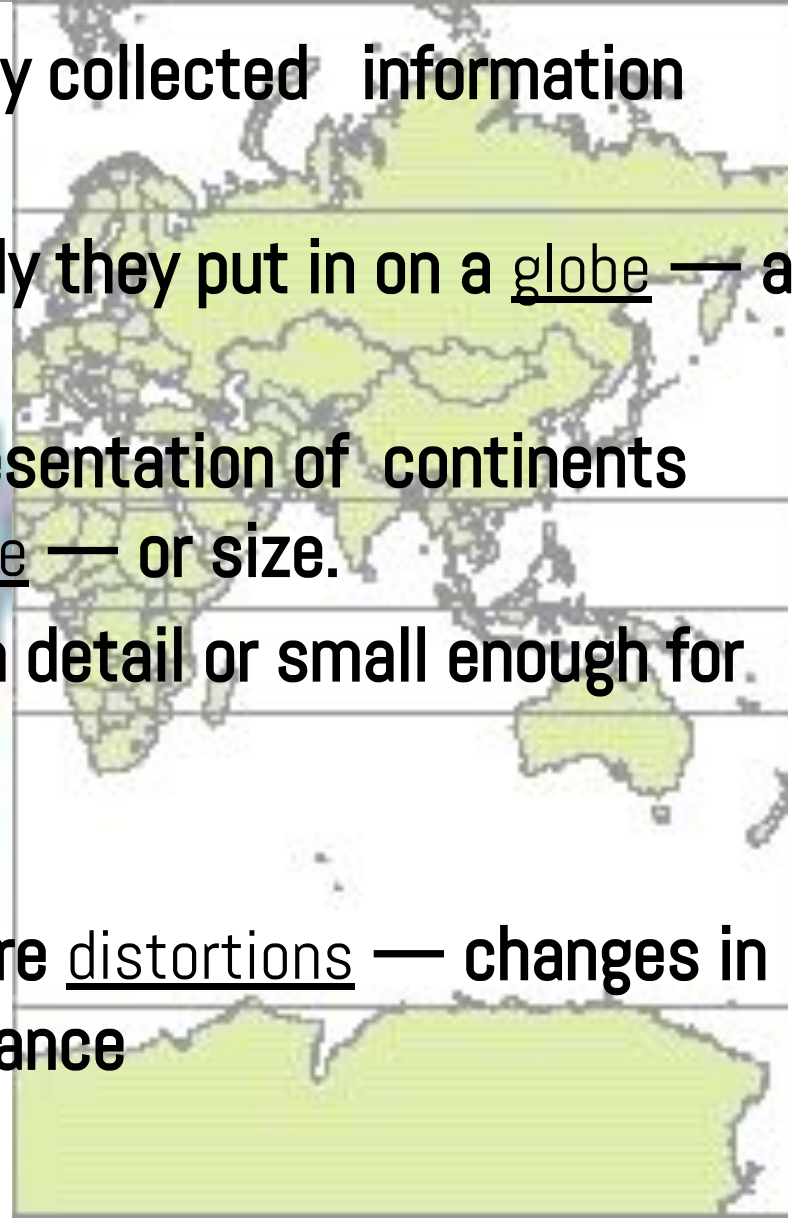


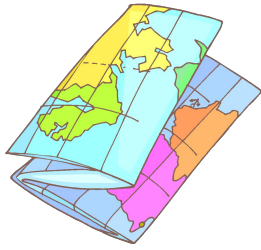
Things to Think About...

- What are the advantages and disadvantages of globes and maps in showing the Earth's surface?
- How did Mercator try to create an accurate map?
- What are the parts of a map?

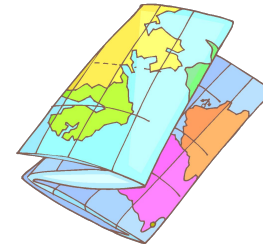
Globes & Maps

- As people explored the earth they collected information about the land
- To present information accurately they put it on a globe — a round model of the Earth
- The globe was an accurate representation of continents except the difference in the scale — or size.
- Problem with globes: not enough detail or small enough for convenience.
- Flat maps were created
- Problem with flat map: there were distortions — changes in the accuracy of shapes and distance

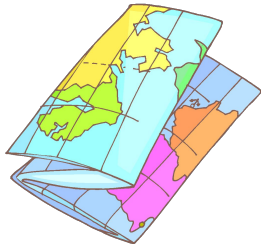




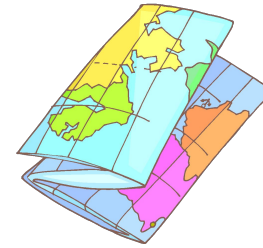
Making Maps



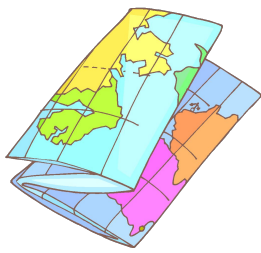
- 1569- Gerhardus Mercator created flat map to help sailors
- He expanded the area between longitudes near the poles making areas near poles bigger than they are
- The Mercator projection — method of putting a map of Earth on a flat piece of paper— is still used in deep-sea navigation



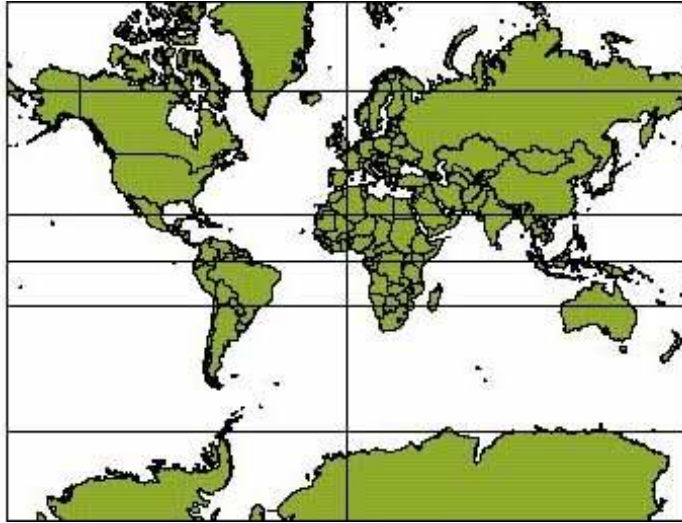
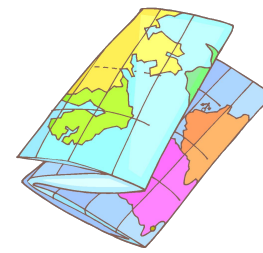
Making Maps



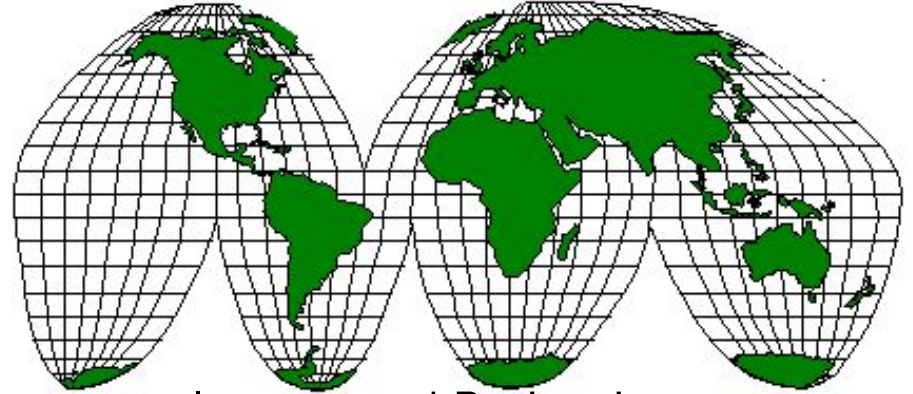
- Other techniques-interrupted projection-show accurate shape of land on flat surface
- Many believe Arthur Robinson's projection is the best world map-it shows accurate shapes of land and oceans
- Problem with Robinson's is that it still has distortions on the edges of map



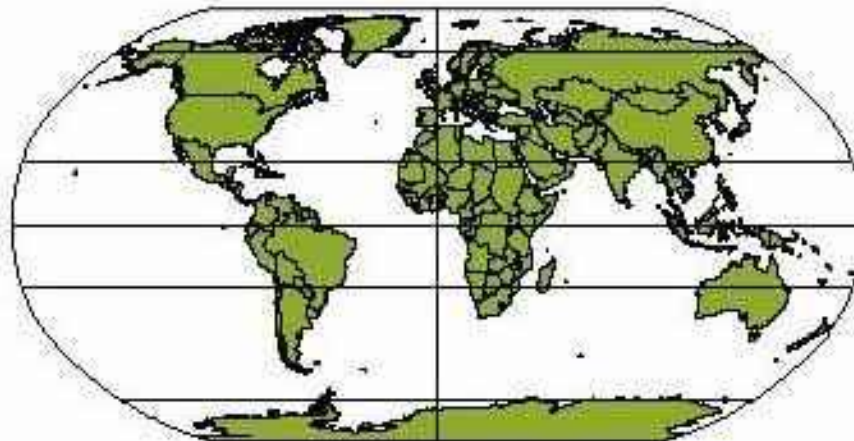
Making Maps



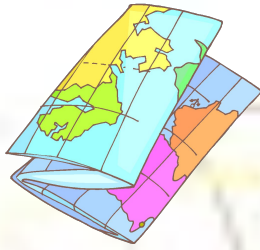
Mercator Projection



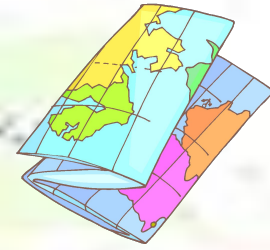
Interrupted Projection



Robinson Projection

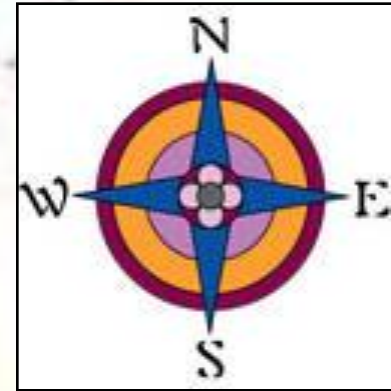


Parts of a Map

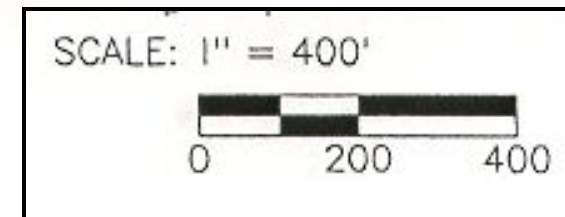


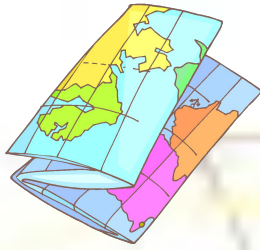
- Map symbols allow people to read and understand a map.

The most important part of a map is the compass rose —which is a model of compass. It tells the cardinal directions —which are north, south, east, and west.

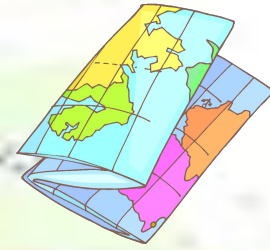


Maps also have indicator for scale —tells what a certain distance on the map stands for on the surface of the earth.



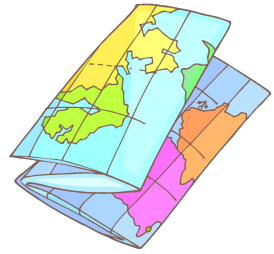


Parts of a Map

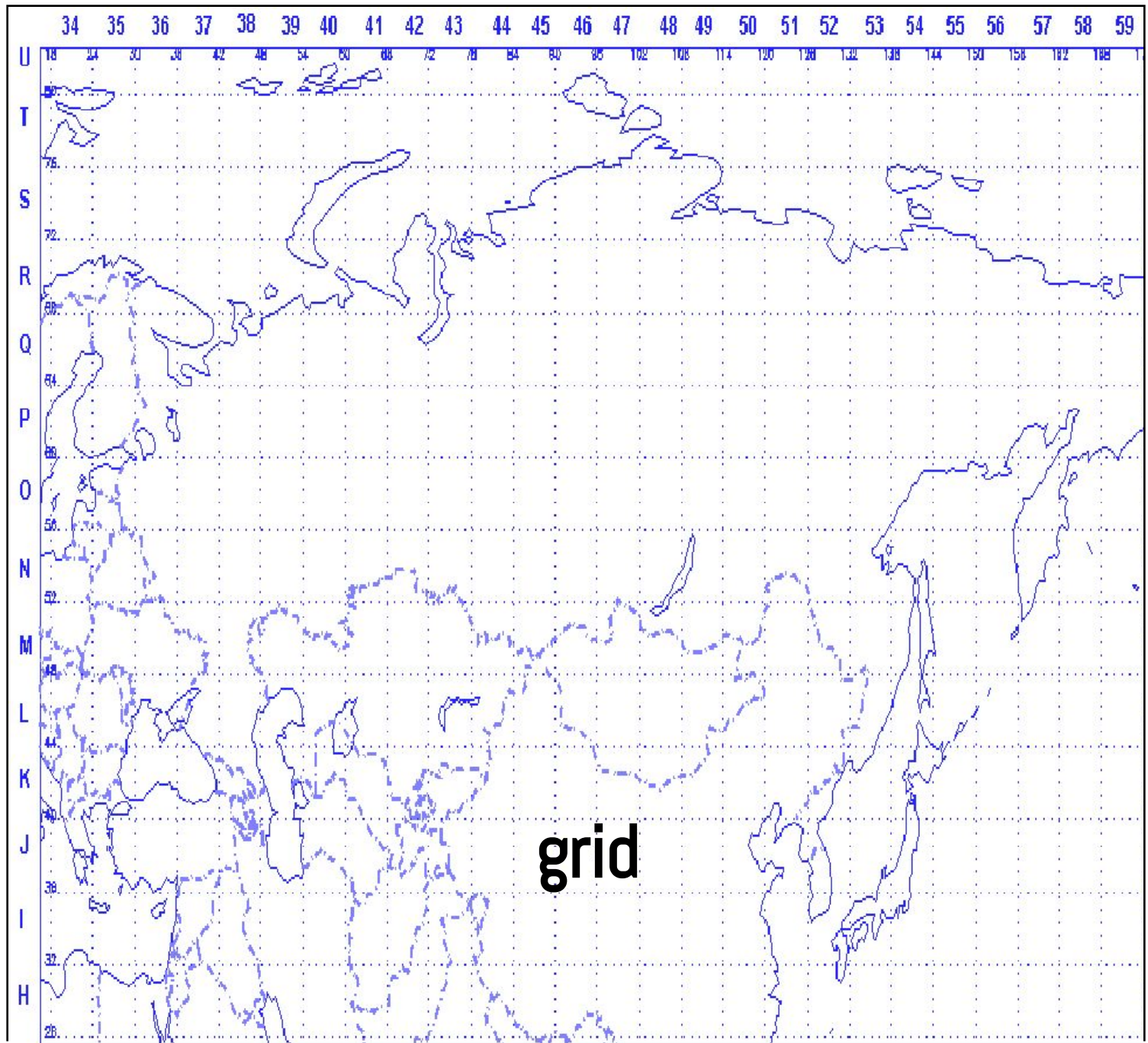
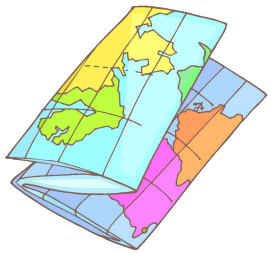


Certain symbols on maps are used to indicate landmarks like roads, rivers, & towns. These symbols are explained in the key — or legend

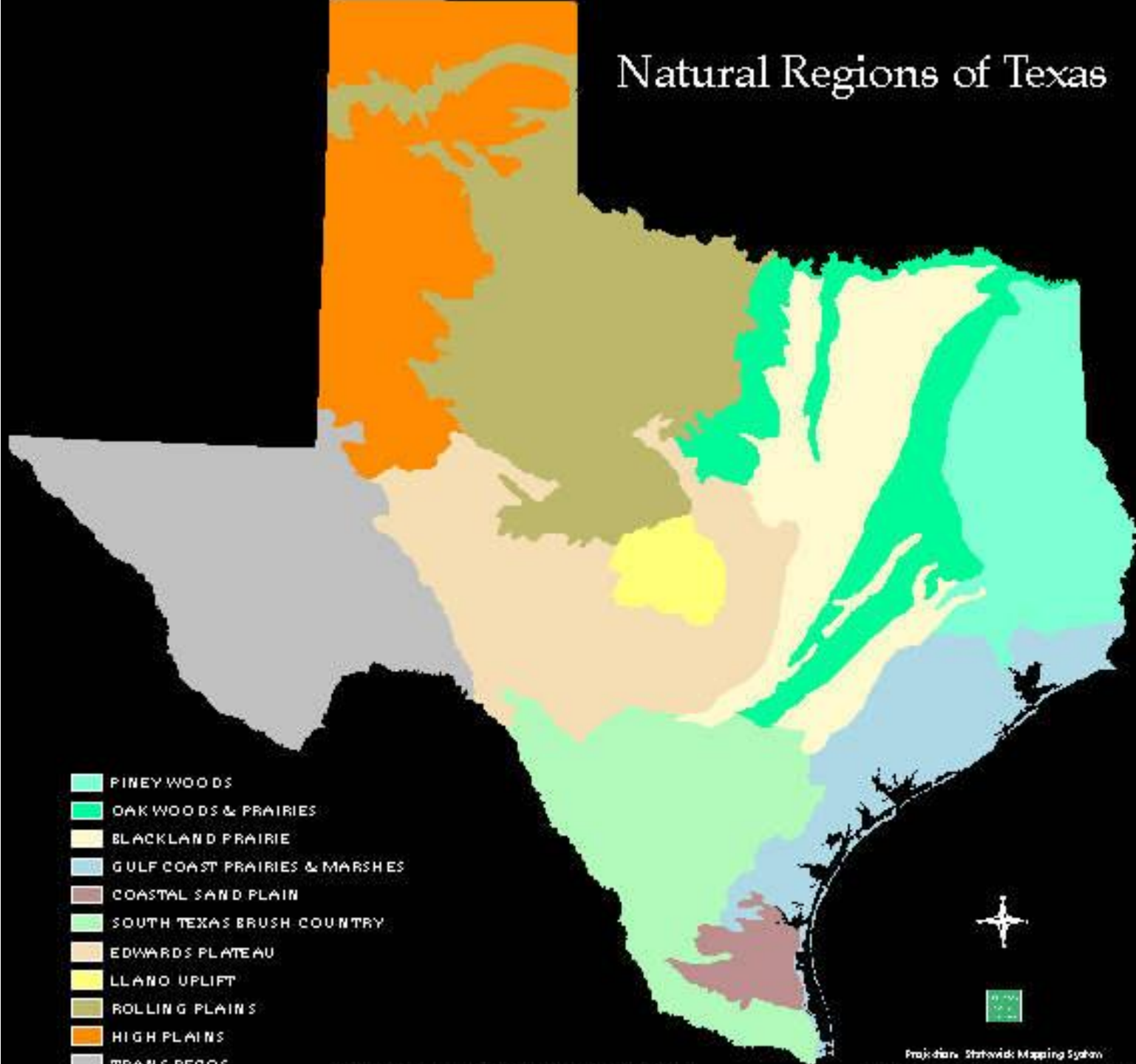
Most maps include a grid — blue lines representing latitude/longitude; some use letters and numbers



Parts of a Map



Natural Regions of Texas



- ◆ PINEY WOODS
- ◆ OAK WOODS & PRAIRIES
- ◆ BLACKLAND PRAIRIE
- ◆ GULF COAST PRAIRIES & MARSHES
- ◆ COASTAL SAND PLAIN
- ◆ SOUTH TEXAS BRUSH COUNTRY
- ◆ EDWARDS PLATEAU
- ◆ LLANO UPLIFT
- ◆ ROLLING PLAINS
- ◆ HIGH PLAINS
- ◆ MEANS BIOTIC

Projection: Statewide Mapping System



- Gerhardus Mercator
 - Distortion
 - Scale
- What is the main problem with the interrupted projection?
- Why are the different parts of a map important?



So, What's the Big Idea?

- **Representing the Earth as a globe and as a flat map presents different problems.**