

# Chapter 1

Physical Geography  
Looking at the Earth

# Chapter 1 Section 1

## The Five Themes of Geography

# Five Themes of Geography

- Location
  - Where is it?
- Place
  - What is it?
- Region
  - How are places similar or different?
- Movement
  - How do people, goods, and ideas move from one location to another?
- Human-Environment Interaction
  - How do people relate to the physical world?

How are the Five themes of Geography a part of your everyday lives?

- Your school has a location as well as your home, and movement is required to get from one location to the other.

# What tools and methods are used by a geographers?

- Maps
- Photographs
- Scale Models
- Five Themes of Geography

# Theme: Location

- Where is it?
  - Absolute location
    - To describe absolute location, geographers use the grid system of imaginary lines precise locating places on the earth surface.
  - Relative location
    - Describes a place in comparison to other places around it.

# What is the difference between absolute and relative location?

- Absolute location is the exact place of a geographic feature. Relative location describes a feature's location in relation to its surroundings.

# How is the absolute location of a place described?

- Absolute location; your home's physical address, this school's physical address, the Latitude and Longitude location of a city on map.

# How is the relative location of a place described?

- Relative location; Pearland is located about 20 miles south of Downtown Houston, Located next to the Ninth Grade Center is Pearland Jr. High South.

# Theme: Place

- The question could be asked "What is it like?" when referring to the place. Place includes the physical features and cultural characteristics of a location.

# Place

- All locations have physical features that are unique:
  - Climate
  - Landforms
  - Vegetation
- Human interaction with the environment:
  - Building of roads and dams and houses.

# What does the theme of *Place* refer to?

- The physical and cultural features of a location.

# Theme: Regions

- The question “How are places similar or different?” refers to a region.
- A region is an area of the earth’s surface with similar characteristics.
- Regions have more than one characteristics that unifies them:
  - Physical
  - Political
  - Economic
  - Cultural

# What is a region?

- An area on the earth's surface with similar characteristics.

# How do formal, functional, and perceptual regions differ?

- A formal region is based on the related characteristics, a functional region on connections between places, and perceptual region on people's perception of an area.

# Formal region

- The United States and Canada
- Latin America
- Europe
- Russia and the Republics
- Africa
- Southwest Asia
- South Asia
- East Asia
- Southeast Asia, Oceania, and Antarctica.

# Functional Regions

- Usually a functional region is characterized by a hub, or central place, and links to that central place.
  - For example, a city and its suburbs may form a functional region.

# Perceptual Region

- A region in which people perceive, or see, the characteristics of a region in the same way.
  - The set of characteristics may not be precisely the same for all:
    - America Midwest for some the people believe that the region begins in Ohio, for others the region begins in the middle of Illinois.

What are some examples of the positive and negative effects of people altering the environment?

- Positive:
  - Makes places safer
  - Makes places more livable
- Negative:
  - Pollutes
  - Destroys natural beauty.

# Theme: Movement

- The question “How do people, goods, and ideas move from one location to another?” refers to movement.

Across the world, people make important choices based on linear distance, time distance, and psychological distance.

# Linear Distance

- Simply refers to how far across the earth a person, an idea, or product travels.

# Time Distance

- Is the amount of time it takes a person, an idea, or product to travel.

# Psychological Distance

- Refers to the way people view distance. When you are younger, some locations seem very far away (are we there yet?). As you grew older, the distance to these locations probably seem to shrink

# Chapter 1 Section 2

## The Geographer's Tools

# Geographer's Tools

- Maps and Globes
  - Globes – A three-dimensional representation of the earth
    - Provides a representational view of the earth as it travels thru space.
    - Not very practical because they are not easily portable and you can only see half of the globe at a time.
  - Maps- which are a two-dimensional representation of selected parts of the earth's surface.

# Types of MAPS

- General reference maps
- Thematic maps
- Navigational maps

# The Science of Mapmaking

- First step is to determine the use of the map. A cartographer keeping that purpose in mind will determine the detail required for the map.

# Surveying

- First Step
  - Observe
  - Measure
  - Record data
- Data gathered includes information such as elevation, differences in land cover, and variations in temperature.

# Cartographers rely on

- Satellites

- Landsat A series of satellites that orbit more than 100 miles above Earth. Each time a satellite makes an orbit, it picks up data in an 115 miles wide . Landsat can scan the entire Earth in 16 days.
- GOES – Geostationary Operational Environment Satellite – This satellite flies in orbit in sync with the Earth's rotation. By doing so it always views the same area. It gathers images of atmospheric conditions that are useful in forecasting the weather.

# Cartographers rely on cont'd

- Geographic Information Systems (GIS)
  - The newest tool
  - Stores information about the world in a digital database.
  - Information could include maps, aerial photographs, satellite images, or other data.
- Global Positioning System (GPS)
  - Originally developed for the military forces.
  - Uses a series of 24 satellites called Navstars, which beam information to the earth..

# Reading a Map

- Title: Explains the subject
- Compass Rose: Shows the direction North is on the map.
- Labels: Explain the features of the map.
- Legend: Explains the symbols and the use of color on the map.
- Lines of Latitude: Imaginary lines that measure distance north or south of the equator. Latitude goes around the earth.
- Lines of Longitude: Imaginary lines that measure the distance east or west of the prime meridian. Longitude goes over the earth.
- Scale: ratio between unit of length on the map and a unit of distance on the earth.
- Symbols: Represent items of interest on the map.
- Colors: Represent a variety of information on a map.

# Projections

- Planar Projections
- Conical Projections
- Comprise Projections
  - Mercator
  - Homolosine
  - Robinson

# Different Types of Maps

- Physical Maps
- Political Maps
- Thematic Maps
  - Qualitative Maps
  - Cartograms
  - Flow-line Maps