

## Lesson #2 U.S. History Geography

### I. Geography

#### A. Earth and Solar System

1. Solar system
  - a. Milky Way – 100,000 light years across/16 light years thick
  - b. Sun – takes 9 minutes for light to reach earth hits at 60-degree angle  
speed of light is 186,300 miles per second
  - c. Earth
    1. Tilt of Earth is 23 and 1/2 degrees / four seasons
    2. Currents
    3. Atmosphere
      - a. 21% oxygen
      - b. 78% nitrogen
      - c. Pole's warm the earth
      - d. Equator cool's the earth
  - d. 93,000,000 miles from Sun
  - e. 24,902 miles circumference at equator/24,960 miles at poles
  - f. Mythology and terms -
  - g. Ptolemy, Copernicus, and Kepler
2. Speed of travel of the Earth – spinning three directions at one time
  - a. Spin on Axis = 1,000 mph (24 hours)  
(Day = 23 hours, 56 minutes, 4.09 seconds)
  - b. Revolving around Sun = 66,600 mph (365 days)  
365 days, 6 hours, 9 minutes, 9.54 seconds
  - c. Traveling galaxy = 43,000 mph through galaxy
  - d. Coriolis effect plus Thermal Effect = causing currents
  - e. Moving slower in March than in September
3. Layers of Earth
  - a. Core = 9,000 degrees (nickel and iron turning causing magnetic North)
  - b. Mantle = 4,000 degrees
  - c. Crust = 1,000 degrees (floats on mantle)
4. Climate = tilt of Earth is 23 1/2 degrees causing seasons
5. Plates, Oceans, and Continents
  - a. Atlantic, Pacific, Indian, and Arctic
  - b. Africa, Asia, Australia, Antarctica, Europe, North and South America
6. Environment
  - a. Water Cycle
  - b. Life Cycle
  - c. Weather

### II. Geographic Terms

#### A. Global Grid System – (manmade)

1. Hemispheres
2. Longitude (meridian) lines run north to south
3. Latitude (parallel) lines run east to west
4. Directions Cardinal Directions (North, South, West and East)
5. Co-ordinates and time zones (Always read North or South first)

B. Landforms

1. Mountains – 6,000 feet / hills – less than 6,000 feet
2. Forest – Trees (31% of earth's surface today)
3. Jungle – Tropical forest – poor soil for most part
4. Desert – Less than 10 inches of rain per year
5. Tundra - Treeless range with short growing season
6. Steppes – Short grass in inches
7. Prairie – Tall grass 4-10 feet
8. Rock types
  - a. Igneous = molten rock
  - b. Sedimentary = layered rock
  - c. Metamorphic = changed by heat and pressure
  - d. Diamonds are made 100 miles deep in neck of volcanoes  
Brazilian diamonds are harder than African diamonds
  - e. Gravity is .07% different from West to East coast – mass in West

III. Self-Quiz:

- Our Galaxy is spinning at =
- Galaxy's name is =
- Solar System is spinning at =
- Solar System's name is =
- Earth is spinning at =
- Tilt of Earth is =
- The four seasons are caused by the =
- The Crust of the earth is =
- The Core of the Earth has what two elements =
- The Super Continent name is =
- The Meridian Lines are called =
- The seven continents are =
- The Igneous rocks are made by =
- The percentage of Oxygen is =