

Name: _____

Date: _____ Period: _____

Midterm Review

The Physical Setting: Earth Science

Midterm Review: 40 Things to Know

- Earth Science Reference Tables: Equations and Specific Heats of Common Materials
- The same substance always has the same density
- As temperature increases the density will decrease. As pressure increases density will increase
- Water expands when it freezes
- Earth Science Reference Tables: Generalized Bedrock Geology of New York State
- The altitude of Polaris equals your latitude
- Latitude lines measure north and south of the equator and are drawn horizontally
- Longitude lines measure east and west of the Prime Meridian and are drawn vertically
- Time is based on observations of the Sun and longitude (15° of longitude = 1 hour)
- The closer isolines are together the steeper the slope or gradient
- Earth Science Reference Tables: Characteristic of Stars and Solar System Data
- The earth rotates west to east- counterclockwise as seen from N. Pole (in 24 hours)
- The earth revolves counterclockwise (365.25 days)
- All celestial objects APPEAR to move from the east to the west
- The moon has phases because of the angle at which we view its surface
- Foucault's Pendulum and Coriolis Effect are evidence that supports Earth rotating
- Summer solstice - 6/21; Winter solstice - 12/21; Vernal Equinox - 3/21; Autumnal Equinox - 9/23
- Earth is closer to the Sun when the northern hemisphere has winter
- The seasons are caused by the 23.5° tilt of Earth's axis
- The closer a planet is to the sun, the faster it orbits.
- Heliocentric (sun centered) vs. Geocentric (earth centered universe)
- Black absorbs heat and white reflects heat
- Convection causes hot air to rise and cold air to sink (due to density differences)
- Energy moves from source (high) to sink (low)
- Secret formula to build a cloud (R.E.C.C.) - Air **r**ises, **e**xpands, **c**ools, **c**ondenses
- Mountain barriers cause air on the windward side to undergo R.E.C.C.
- Earth Science Reference Tables: Properties of the Atmosphere and Planetary Winds
- Air pressure, temperature and moisture content decreases with altitude
- Wind is due to air pressure differences and wind blows from high to low pressure
- Wind is named for the direction it is coming from (not towards)
- Earth Science Reference Tables: Temperature, Pressure, and Key to Weather Map Symbols
- High pressures wind patterns are outward and clockwise
- Low pressures wind patterns are inward and counterclockwise
- Earth Science Reference Tables: Dewpoint and Relative Humidity
- The closer the air temperature is to the dew point temperature, the greater chance of precipitation
- Weather moves towards the northeast due to the Southwesterly Winds
- Permeability, Capillarity Porosity, and Infiltration
- Water is Stubborn - it is the hardest thing to heat up and cool down because of its high specific heat
- Earth Science Reference Tables: Surface Ocean Currents
- Water bodies moderate temperature making coastal regions have smaller temperature ranges