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 Dada
☐ 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 rises, expands, cools, condenses
☐ 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