Notes Air Pressure: *Air Pressure*

1. As you increase\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, air pressure, density, **and** temperature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



1. \_\_\_\_\_\_\_\_\_\_\_ air rises, creating \_\_\_\_\_\_\_\_\_\_\_\_\_ (clouds form if enough moisture)
2. \_\_\_\_\_\_\_\_\_\_\_ air sinks, creating **\_\_\_\_\_\_\_\_\_\_\_\_\_** (results in few or no clouds)
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_= “lousy” weather
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_= “happy” weather
5. Instrument= \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_(2 types)—aneroid\* and mercury
6. **high pressure**
	1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Low Pressure
	1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Heat Transfer*

1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_How heat travels from one place to another…
2. Only about \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the sun’s energy actually reaches Earth!!!
3. Radiation
	1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ from the sun
	2. travels in **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (EM)** **waves**
	3. Example:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. CONDUCTION
	1. transfer of heat through contact/\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a material
	2. warm to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. heats air near Earth’s \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	4. Example:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. CONVECTION
	1. transfer of heat by circulation/movement of **\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_**
	2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_way heat is moved around in the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
	3. convection currents created by \_\_\_\_\_\_\_\_\_air rising (less dense) and \_\_\_\_\_\_\_\_\_\_air sinking (denser)

**Study Jams: Air Pressure and Winds**

1. What role does air pressure play in weather conditions?
2. Its force determines the strength of wind
3. It creates downdrafts that blow from the shore
4. It is the primary cause of Trade Winds
5. It determines how high or low the tide is
6. What gives wind its mass?
	1. Barometric pressure
	2. Air molecules
	3. Air pressure
	4. The convection cell
7. Which three elements affect air pressure?
	1. Wind, earth’s distance from the moon and clouds
	2. Amount of plants, wind and level of water in the ocean
	3. Height above sea level, temperature, and amount of water vapor
	4. Temperature, wind, and how much plant or animal life is around
8. What is a convection cell?
	1. Extremely dense and heave masses of air
	2. A place on the beach where scientists watch weather
	3. An instrument scientists use to measure wind speeds
	4. A pattern of rising warm air and sinking cold air
9. Why does air rise over land at the beach?
	1. Cold air gets warmer over land, which makes it lighter, so it rises
	2. Warm air over the sea moves inland, gets cooler, and then rises
	3. Trade winds around the equator blow the air higher at the beach
	4. Land is cooler than water at the beach, so the air repels away from it
10. Which best describes the Coriolis Effect?
	1. As cool air warms up, it rises and as warm air cools down, it sinks creating a breeze
	2. As the sun rises and sets, the path of the wind all over Earth changes directions
	3. As it spins on its axis, the earth pulls the wind and causes it to blow in a curved path
	4. As the air pressure on the earth’s poles changes, the wind at the equator becomes stronger
11. Which kind of wind blows across most of the United States?
	1. Polar easterlies
	2. Prevailing westerlies
	3. Trade winds
	4. Polar windbacks