

## Weather Part I...A Mrs. Chambley Fill in Review Guide

COMPLETED

Assessment Date: Friday, September 27<sup>th</sup>

Remember: This interactive notebook has almost everything you need in it! Use this as your primary source for information. Reread your notes and highlighted areas.

### Lesson 1: What are the four ingredients of weather?

-AIR

-LAND

-SUN

-WATER

### Lesson 2: What happens when air is heated?

-Hot Air does what (rise or sink?) AND Cold Air does what (rise or sink)?

\*Be sure to review your notes from Balloon on a Bottle Demonstration

-What happened to the balloon when the bottle was placed in hot water?

-What happened when it was placed in cold water?

### Lesson 3: How does the Sun heat our planet?

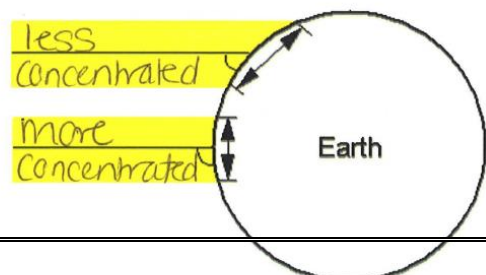
-The angle's of the Sun's rays cause **UNEVEN** heating of the earth's surface.

-Where on the Earth is it warmer? At the poles or at the equator? **EQUATOR** Why?

**The Sun's rays are more concentrated at the equator because of the direct angle (90 degree)**

Explain the picture here →

Sun



#### Lesson 4: How does the sun heat our soil and water?\*

\*I found that SOIL heated up the quickest. That means that SOIL heats up faster than WATER

\*I found that SOIL cooled down the quickest. That means that SOIL cools down faster than WATER

\*So, that means that the Sun heats soil and water at DIFFERENT rates. *Soil* heats up and cools down FASTER than water.

#### Lesson 5: What properties of air impact weather?

Air is made of molecules/atoms. It has mass, volume, density, and pressure. (look at Lesson 5 pages in your INB)

Think about: Crush the Can, Egg in a Bottle, Potty Plungers, and Balloon in the Room

\*Be able to describe what concept these experiments/demonstrations were showing.

\*Be able to describe one of the demonstrations/experiments in detail (in INB)

#### Lesson 6: What causes wind?

1. Warm air RISES and cold air SINKS.
2. On Earth, land (soil) heats and cools FASTER than water.
3. Air moves from HIGH to LOW pressure. (Thumb over straw)

Differences in air pressure cause air to move. Most differences in air pressure are caused by the UNEQUAL HEATING of the atmosphere.

Remember: Warm air rises to create an area of low pressure

Cold air sinks to create an area of high pressure

Sinking cold air sweeps in to take the spot of rising warm air

This moving air= wind!