**Temperature**: Is a \_\_\_\_\_\_\_\_\_\_ used to describe the average speed (rate of movement) of the particles in a substance. A glass of pop from the fridge (lower temperature)will have molecules moving \_\_\_\_\_\_\_ than a glass of pop sitting out on the counter (warmer temperature). Temperature is also known as the amount of \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_ in a substance.

**Heat:** Is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that is transferred from \_\_\_\_\_\_\_ areas to \_\_\_\_\_\_\_\_ areas. Heat is the only thing that can move , \_\_\_\_\_ can not. Heat is also called \_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_ .

250 ml of water at 50 degrees has 2 times the amount of heat as a 125ml of water at 50 degrees.

They have them same temperature but it would take two times the work to heat the larger container.

**Fool Your Body Lab:**

Since heat can only move from areas of hotter to areas of colder, the hand that was in the hot bath felt \_\_\_\_\_\_\_\_ because heat from the bath water went \_\_\_\_\_\_\_ your hand. Your body temp was \_\_\_\_\_ and the hot water was hotter than this.

Your hand feels cold in the cold water because heat from your \_\_\_\_\_\_ leaves it and goes into the \_\_\_\_\_\_\_ because your body is \_\_\_\_\_\_\_ than the water.

When you put these hands into the warm water, the hot hand felt \_\_\_\_\_\_\_ and the cold hand felt \_\_\_\_\_\_\_. Since the hot hand had time to absorb heat and the cold hand had time to lose heat, they experienced the warm bath differently, even though both hands were in the same temperature water.

**Touching things around the room:**

Since our hands are about 30 -37 degrees Celsius, and the room is about 20 degrees, you would expect all the items in the room to feel cold when we touch them. This is not always the case. \_\_\_\_\_\_\_ objects conduct heat easily so they will feel \_\_\_\_\_\_\_ because heat from our hands is conducted into these objects easily.

Wooden and plastic objects are good i**nsulators** of heat, so when we touch them heat from our bodies is not as easily moved into them so they actually feel warmer because our bodies are not loosing as much heat.

Cold is the \_\_\_\_\_\_\_\_\_\_ of heat energy.

Heat is the \_\_\_\_\_\_\_\_\_\_ of heat energy and the only thing that can move from place to place.

Use the word temperature or heat in each blank.

1. The \_\_\_\_\_\_\_\_ outside was minus 10.
2. The \_\_\_\_\_\_ in the room was coming from the radiator.
3. Turn up the \_\_\_\_\_\_\_\_\_ on the thermostat so I will feel warmer.
4. The food in the fridge spoiled because there was too much \_\_\_\_\_\_ inside it.
5. Open the window and let the \_\_\_\_\_\_\_\_ out so the room will cool off.
6. 350 degrees is the perfect \_\_\_\_\_\_\_\_\_\_ to cook your cookies.