Name: _____
Period: _____ Mr. Suelbury - Key

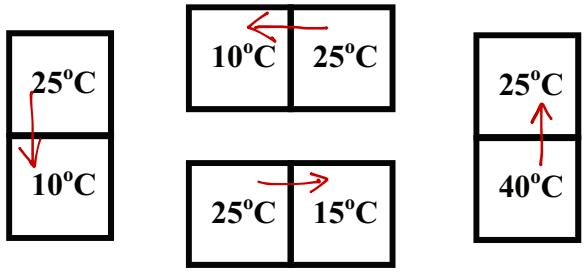
1. Conduction B	A. Heat transfer through electromagnetic waves.
2. Thermal Equilibrium D	B. Thermal (heat) transfer by the contact (touching) of two objects.
3. Radiation A	C. Transfers heat by moving currents in gases and liquids.
4. Wind F	D. When two objects are at the same temperature.
5. Convection C	E. The study of how heat moves.
6. Thermodynamics E	F. Caused by convection currents in the earth's atmosphere.

1. Insulator E	A. A region of space that contains no matter.
2. Conductor C	B. Allows convection, but is a very good insulator.
3. Vacuum A	C. Any material that easily allows heat to move through it.
4. Solid F	D. Allows convection; can be a good conductor of heat.
5. Liquid D	E. Any material that resists the movement of heat through it.
6. Gas B	F. No convection can occur in this.

What Kind of Thermal Transfer?
1. Conduction; 2. Convection; 3. Radiation

2 When hot air rises.	2 Causes wind.
1 When two objects are touching.	1 Between a stove and a pot.
3 When nothing is touching.	2 Within a pan of water.
1 When atoms collide.	3 More occurs with dark objects.
3 Transfers heat in all directions.	1 * Through a car's windows at night.

Draw an arrow for each of the following pair of objects showing the direction of the thermal transfer.



Does heat rise?
no... heat flows from hot to cold until objects reach thermal equilibrium.

Does hot air rise?
Yes hot air rises.

Why?
Hot air is less dense than cool air and is forced up.

Which of the following are at thermal equilibrium?

A. 25°C | 5°C (crossed out)

C. 5°C | 5°C

B. 25°C | 25°C

D. 5°C | 25°C (crossed out)

Thermal **I**nsulator or Thermal **C**onductor?

C Metal	C Glass	I A coat
I Wood	C A penny	I Styrofoam
I Air	I Water	C Aluminum

Absorbs heat (heats fast) or **R**eflects heat (heats slowly)?

A Dark liquids	A Dull objects	R Aluminum
R Clear liquids	R White paper	R Styrofoam
R Shiny objects	A Black paper	A Dark car

Is this diagram correct or incorrect and why?

b/c heat only flows from hot to cold.

Heat transfer ←

25°K | 15°K