

Conduction, convection, and Radiation

Last Name: _____	First Name: _____	Period: _____	Date: _____
------------------	-------------------	---------------	-------------

Review

	Transfer of heat by	Example
Conduction	Contact	• Touching a hot rod
Convection	Moving of air/liquid Hotter rises Less hot(colder) sinks	❖ Boiling water ❖ Wind ❖ Magma inside the earth
Radiation	Transfer by waves No contact	➤ Sun ➤ Radiator ➤ microwave

Questions 1

Instructions: Label the picture as Conduction, Convection or Radiation

Heat from camp fire



Heat from your hand melts the ice



Hotter air rises



You touch a remote control



Food gets cooked on the hot pavement



Boiling H₂O



Warm food in a microwave



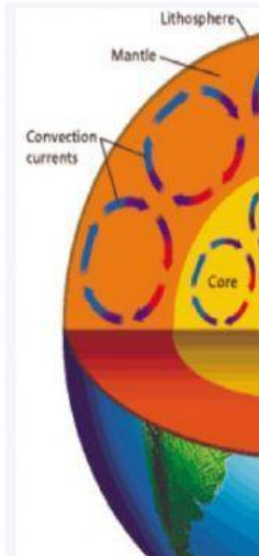
The hot air from the hairdryer rises and as it cool down sinks



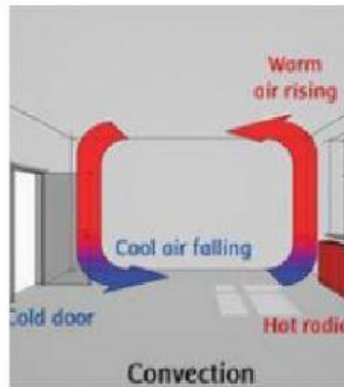
Pan on a stove



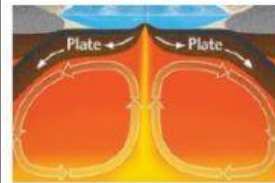
Hot magma rises and less hotter sinks



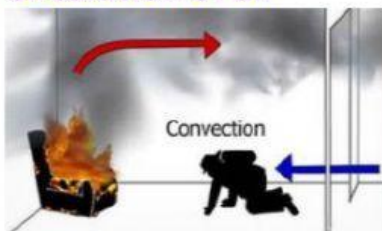
Heat rises – cold sinks



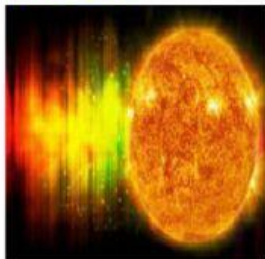
Hotter Magma rises and less hotter sinks



Circulation of air

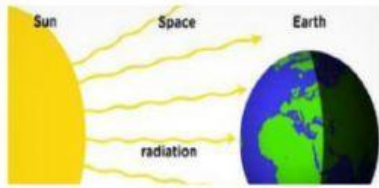
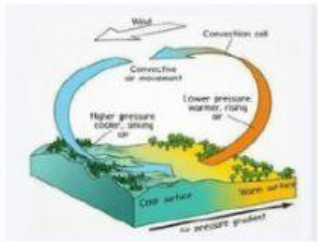


The sun



Electromagnetic radiation



The sun heat 	The air movement is by Con.... 	The wind moves because... 
	Spoon get hotter by contact 	Touching a hot handle 

Questions 2

The first statement of the **2nd law of thermodynamics** - **heat flows** spontaneously from a **hot** to a **cold** body.

It tells us that an ice cube must melt on a **hot** day, rather than becoming colder. **In other words**, the ice cube **will not** give away energy to a hotter object and become colder (**this will not make any sense**)

Instructions: Use the above paragraph to complete the sentences

The first statement of the 2nd law of thermodynamics
- _____ spontaneously from
a _____ to a _____ body.

It tells us that an _____ cube must _____ on
a _____ day, rather than becoming colder. In other
words, the ice _____ will _____ give _____
energy to a _____ object and become _____ (this
will _____ make any _____)

Question 3

If you are present in class

You need to bring a composition notebook every day.

Make a drawing of a conduction, convection, and radiation example.