

Conduction, convection, and Radiation

Last Name: _____	First Name: _____	Period: _____	Date: _____
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Review

	Transfer of heat by	Example
Conduction	Contact	<ul style="list-style-type: none"> • Touching a hot rod
Convection	Moving of air/liquid Hotter rises Less hot(colder) sinks	<ul style="list-style-type: none"> ❖ Boiling water ❖ Wind ❖ Magma inside the earth
Radiation	Transfer by waves No contact	<ul style="list-style-type: none"> ➤ Sun ➤ Radiator ➤ microwave

Questions 1

Instructions: Label the picture as Conduction, Convection or Radiation

<p style="color: #800080;">Heat from camp fire</p> 	<p style="color: #800080;">Heat from your hand melts the ice</p> 	<p style="color: #800080;">Hotter air rises</p> 
<p style="color: #800080;">You touch a remote control</p> 	<p style="color: #800080;">Food gets cooked on the hot pavement</p> 	<p style="color: #800080;">Boiling H₂O</p> 

Warm food in a microwave



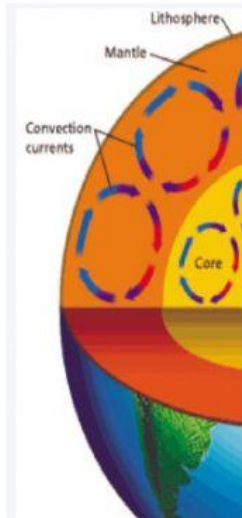
The hot air from the hairdryer rises and as it cool down sinks



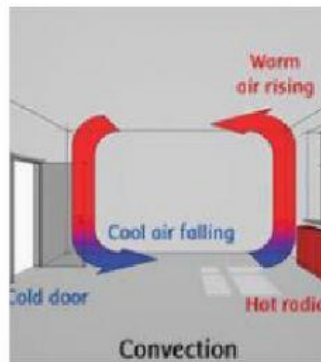
Pan on a stove



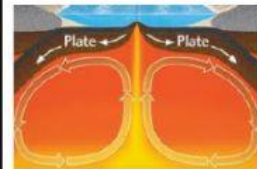
Hot magma rises and less hotter sinks



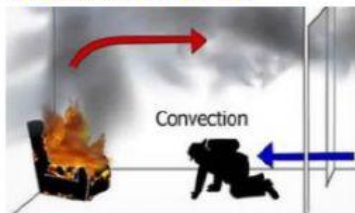
Heat rises – cold sinks



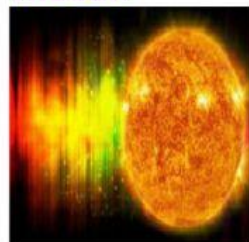
Hotter Magma rises and less hotter sinks



Circulation of air

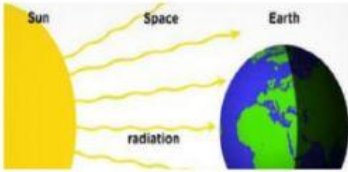
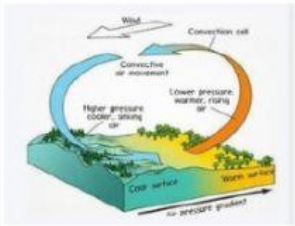






The sun



Electromagnetic radiation



<p>The sun heat</p> 	<p>The air movement is by Con....</p> 	<p>The wind moves because...</p> 
	<p>Spoon get hotter by contact</p>  <p>Conduction of Heat</p>	<p>Touching a hot handle</p>  <p>Conductive Heat Transfer</p>

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.**