

CONVECTION

is the transfer of heat by the movement of warmed matter (air or liquid)

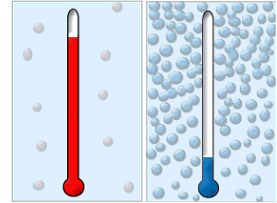
Write down underlined statements.



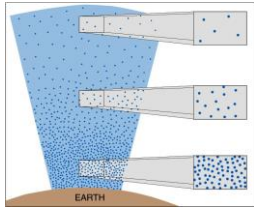
The Sun provides the energy that drives convection within the atmosphere and oceans, producing winds and ocean currents.



Hot Air is Less Dense!



Atmospheric Density



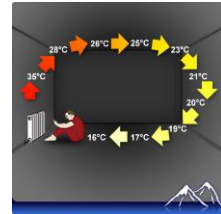
What is most dense SINKS!

CONVECTION

Soup is heated in the pan by convection. The hot soup rises. Cool soup falls to take the hot soup's place.



CONVECTION



CONVECTION CURRENTS

move the air in our atmosphere!

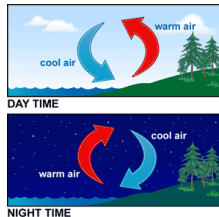
We have global winds that blow because of these large convection currents



CONVECTION

Wind over the shore changes direction because of EARTH'S UNEVEN WARMING & COOLING!

We call these local winds



Write down these questions. Answer the question as you see the change in water color:

1. What was the difference in the movement of the food coloring between the hot and cold water?
2. Why do you suppose the food coloring behaved this way?
3. What changes in cold water to make it hot (molecules)?



CONVECTION DEMOS!

Tea bag

<http://www.youtube.com/watch?v=YsCXwzhQU5o&feature=youtu.be>

Colored Water

<https://www.youtube.com/watch?v=bN7E6fCuMbY>

Why does hot air rise and cold air sink?

Cool air is more dense than warm air, so the cool air 'falls through' the warm air.

Why are the heating elements placed beneath hot water tanks in people's homes?

Hot water rises.

So when the element heats the water, and the hot water rises, the water tank is filled with hot water.