Mount Litera Zee School Roorkee

Grade-VII

Subject- Science

Chapter :Heat

Write in note book.

The transfer of heat

- **Convection**: The transfer of heat in liquids and gases is called **Convection**. The molecules of the liquid or gases that are near the source of the heat get heated first. They become lighter due to the heat and move upwards. The colder particles being heavier take the place and this process continues until the whole liquid or the gas gets heated. That is why the area above the flame of a candle always feels hot but the area on the sides of the candle does not.

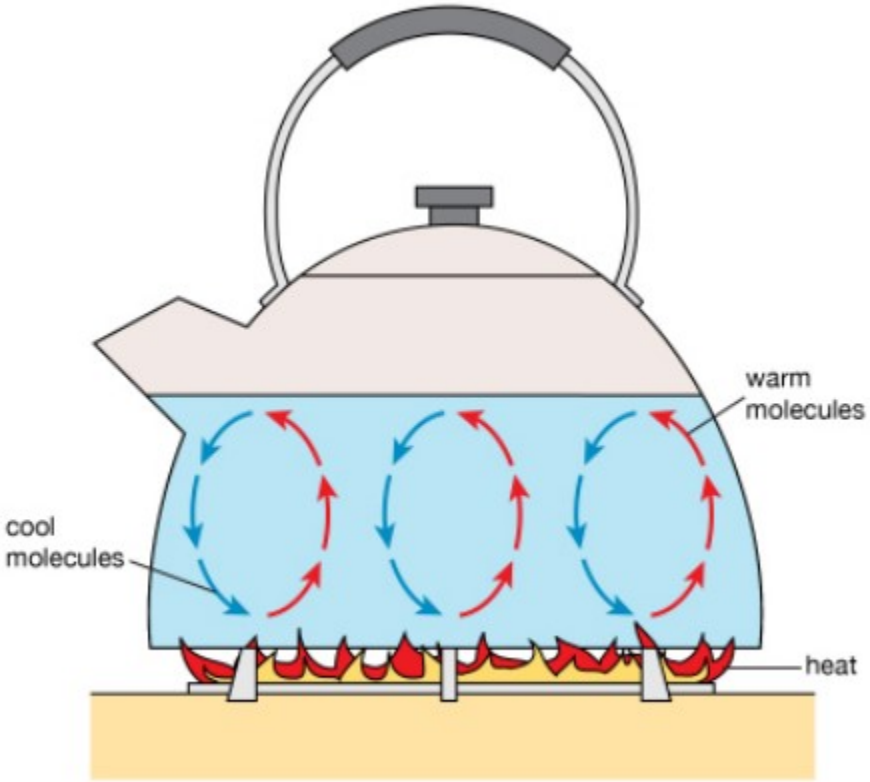

Figure 9 Convection

Questions.

Q. How does the heat travel in air?

Ans. Heat travels in air through convection.

Q. The handle of a pressure cooker is covered with the thick plastic. Explain why.

Ans. As we know that plastic is a bad conductor of heat due to which the heat from the cooker does not flow to its handle and we can hold it easily.
So, this is a reason because of which the handle of a pressure cooker is covered with the thick plastic.

Q. Differentiate between two modes of transfer of heat, i.e. convection and conduction.
Answer:
Difference between convection and conduction

Conduction	Convection
The mode of transfer of heat from the hotter part material to its colder part or from a hot material to a cold material in contact with it without the movement of material as a whole. So, this phenomenon is known as conduction	The mode of transfer of heat from the hotter part of a fluid to its colder parts by the movement of liquid itself. So, this phenomenon is known as convection.
In all the solids, heat is transferred by the process of conduction	In all the liquids and gases, heat is transferred by the process of convection

Q. Explain the reason for the general fitting of air conditioner at higher level on the wall of the room.
Answer: As a fact that warm air is much lighter than the cold air, so being heavier the cold air from air conditioner moves downwards while the hot air moves upwards at the lower level and gets cooled and come downwards once again. So, due to this convection of heat are set in the air and room gets warmer faster.

Q. Briefly explain, why do the kites and eagles fly without flapping their wings.
Answer: As it is a fact that the hot air during the day time surrounds the land gradually and rises up, due to which a convection air of heat develops. So, kites and eagles start moving along this rising current of heat without flapping the wings to fly high up in the sky.

Q. Describe briefly about the direction of the convection current during ventilation.
Answer: Since, with the help of ventilators, warm air being higher get rises up and leaves the room. Even the fresh air enters the room from outside through the doors and windows.