

LAB 2: CONDUCTION AND CONVECTION (in water)

AIM: To investigate the conduction and the convection of heat in water.

APPARATUS AND MATERIALS:

test tube

water

bunsen burner

ice cubes

gauze

potassium permanganate

large glass beaker

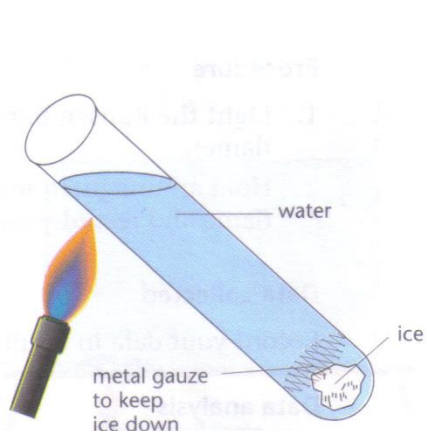


Diagram 1: Conduction of heat in water.

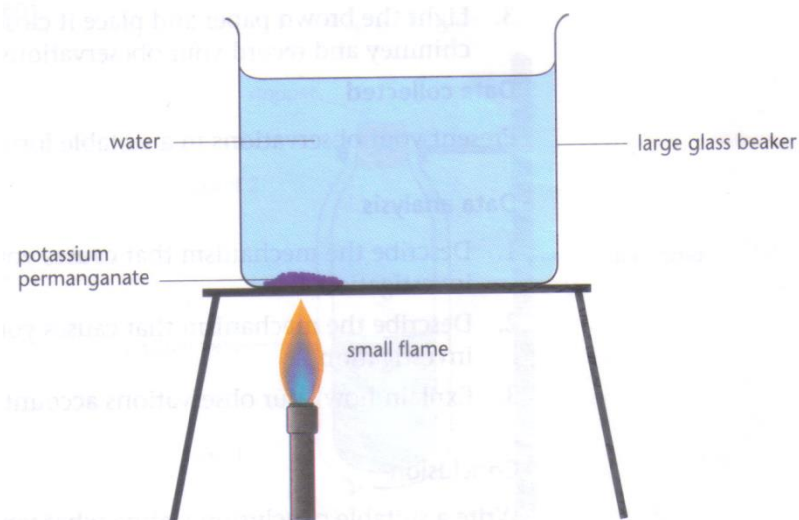


Diagram 2: Convection of heat in

METHOD: (Conduction)

- Wedge a piece of ice at the bottom of a test tube so that it cannot float.
- Almost fill the test tube with cold water and heat it near the upper end.
- Record all observations.
- Repeat the experiment, but instead allow the ice to float in the test tube and heat the test tube at the bottom.
- Record all observations.

METHOD: (Convection)

- Fill a beaker with cold water almost to the top. When the water is still, drop a few crystals of potassium permanganate near one side.
- Using a small flame, gently heat the beaker just below the crystals.
- Record all observations.

THEORY:

- Define conduction and convection

OBSERVATIONS:

- State all the observations in both experiments.

CONCLUSION:

- Explain the observations that occurred in both experiments.