

NAME - SUBHASHREE PANDEYANIL
CLASS - VI, SEC - D, SCHOOL NO - 4658

classmate

Date _____

Page _____

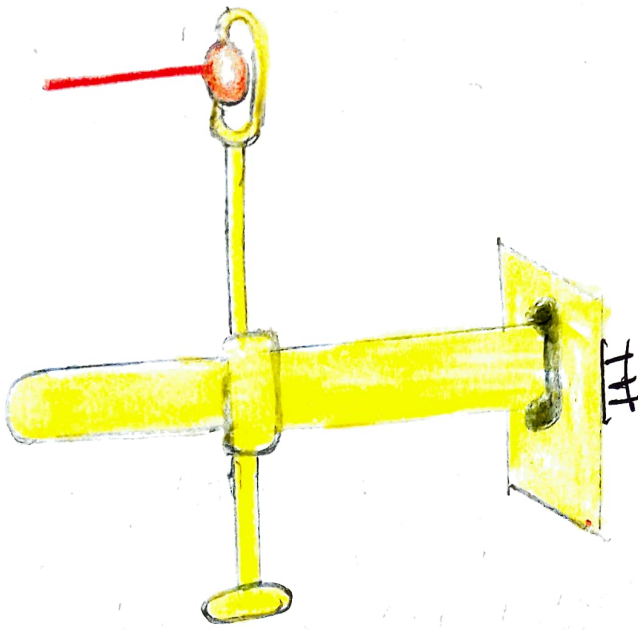
CHAPTER-3 MATTER

Activity 14

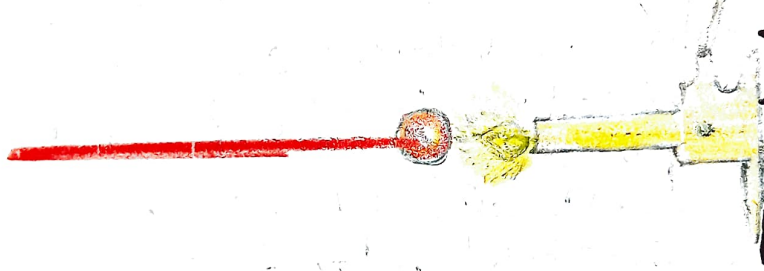
Ball and ring experiment to show that a solid expands on heating and contracts on cooling.

Take a metallic ring and ball. Try to pass the metal ball through the ring. Now heat the metal ball for 5-6 minutes. The hot ball is not able to pass through the ring.

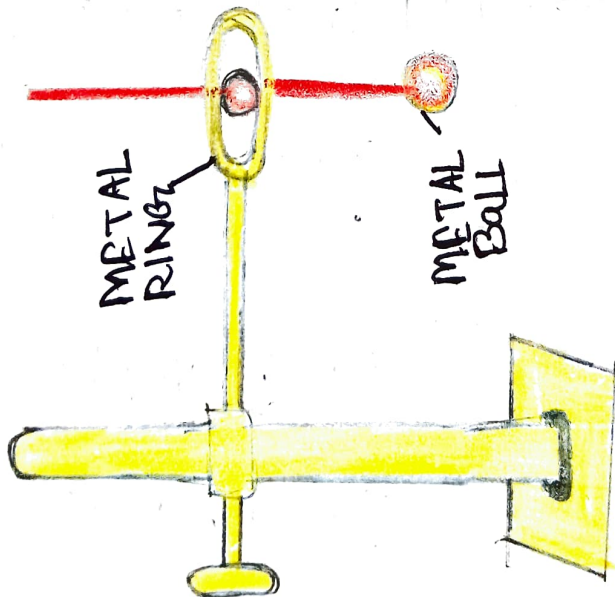
This shows that a solid expands on heating. Now cool the ball, it again passes through the ring. This shows that a solid contracts on cooling.



The metal ball is unable to pass through the ring after being heated



II Metal ball is heated



I The metal ball passes through the ring

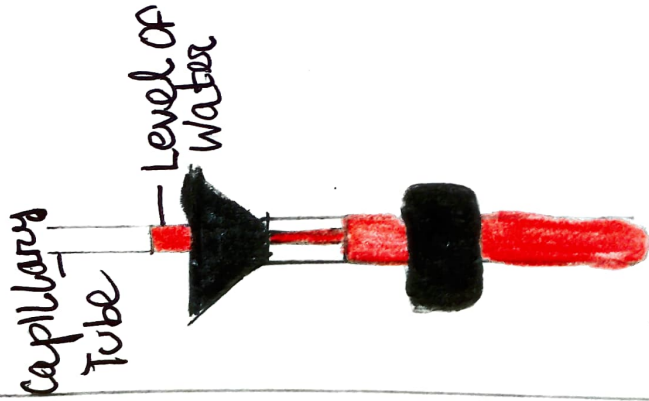
Activity-15

To show that a liquid expands on heating and contracts on cooling.

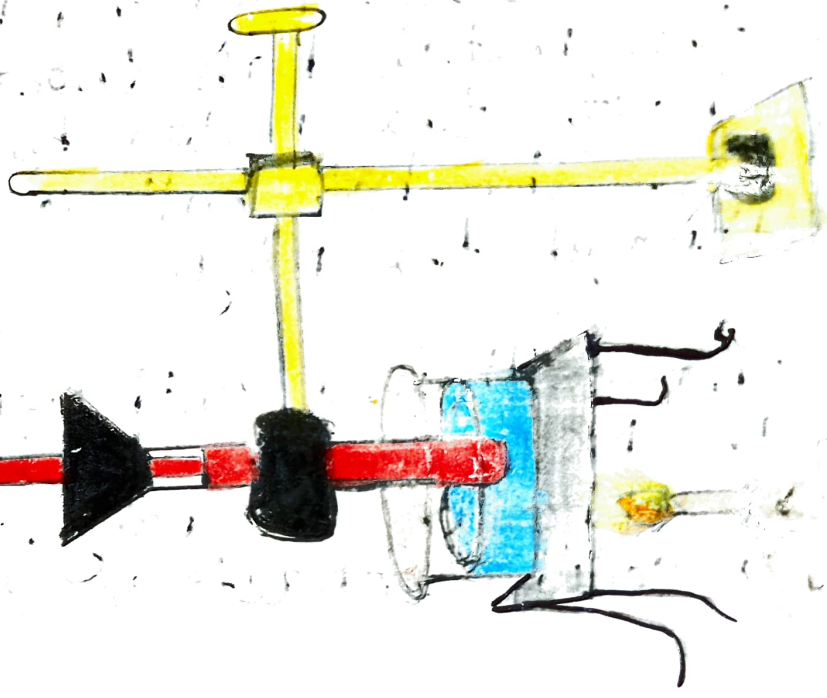
Take a test tube filled with coloured water. Close the mouth of the test tube with a cork. Fit a capillary glass tube through a hole in the cork such that it is dipped in water. Some water enters the capillary tube. Note the level of water in the capillary tube. Now heat the test tube by putting it in a water bath. You will observe that the level of coloured water increases in the capillary tube.

On cooling the test tube, the water level in the capillary tube decreases, showing that liquid contracts on cooling.

This shows that liquids expand on heating.



water
Level
Rises



BURNER

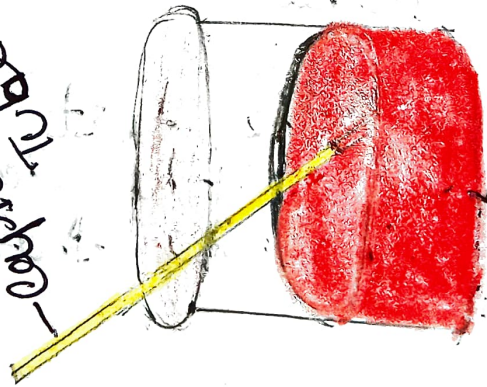
Activity - 16

To show thermal expansion of gases.

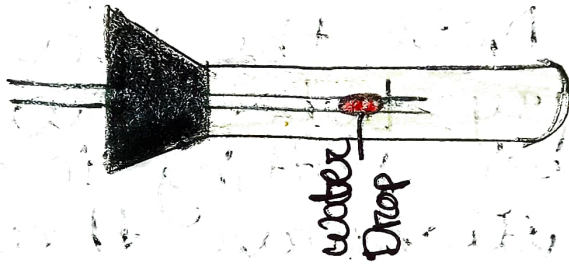
Take some coloured water in a beaker. Take a capillary tube and dip its one end in the capillary tube. Fit this capillary through a hole in the cork. Now fit the cork in a test tube carefully.

Now heat the test tube. After some time you will observe that, drop of water moves up. This is because air in the test tube expands on heating which pushes the water drop up. Now cool the test tube, the water drop again comes down. This shows that air contracts on cooling.

capillary tube



Coloured water



water Drop



Water Drop Rises On Heating

Burner Heat