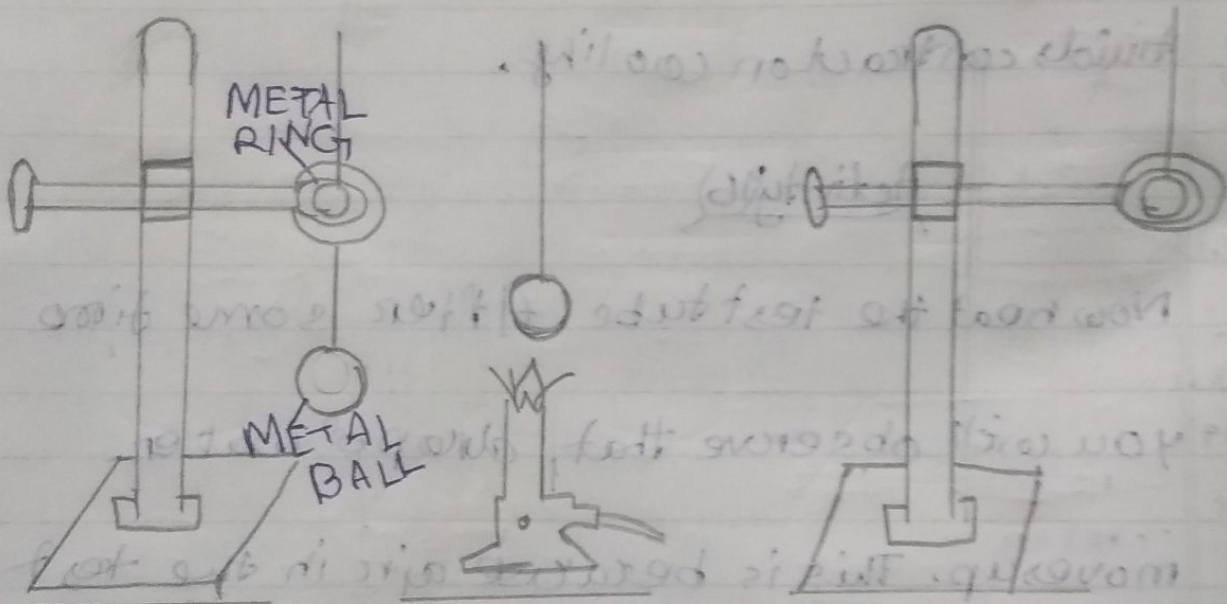


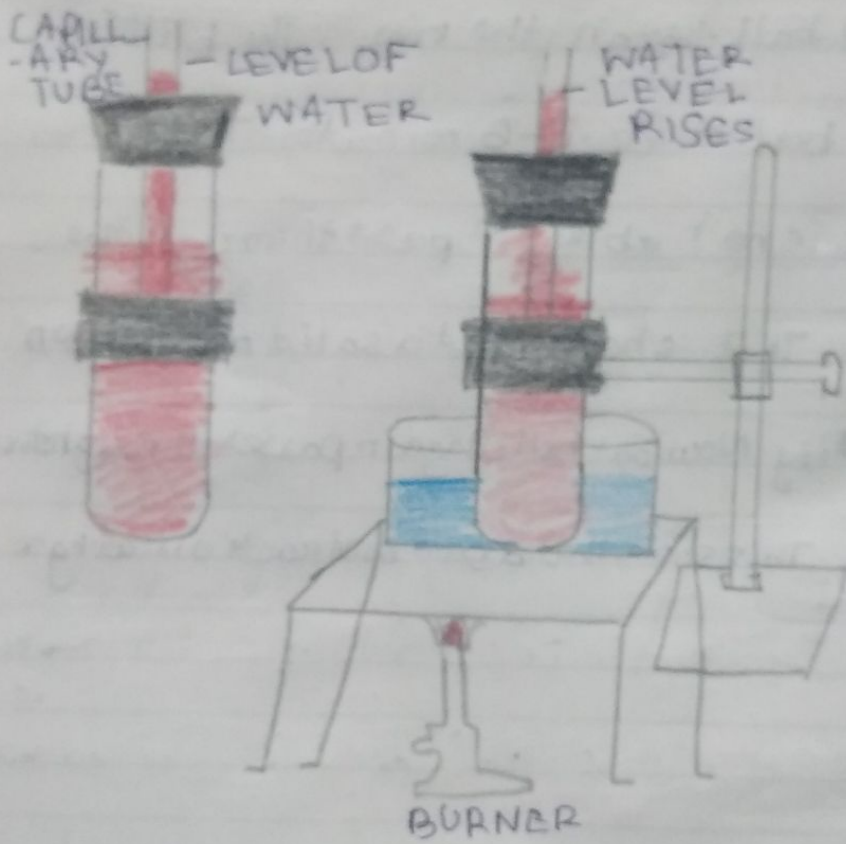
ACTIVITY 14

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

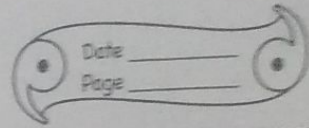


Take a metallic ring and ball. Try to pass the metal ball through the ring. The ball is able to pass for 5-6 minutes. The hot ball is not able to pass through the ring. This shows that a solid expands on heating. Now cool the ball. It again passes through the ring. This shows that a solid contracts on cooling.

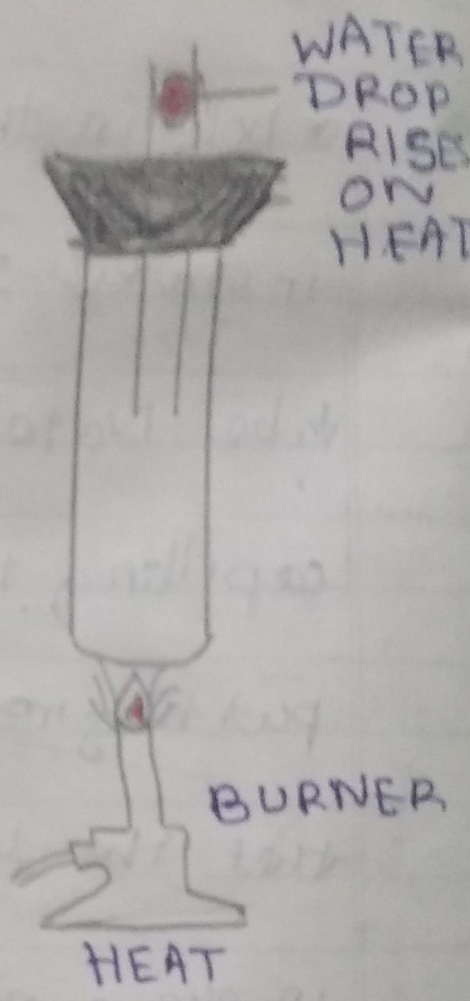
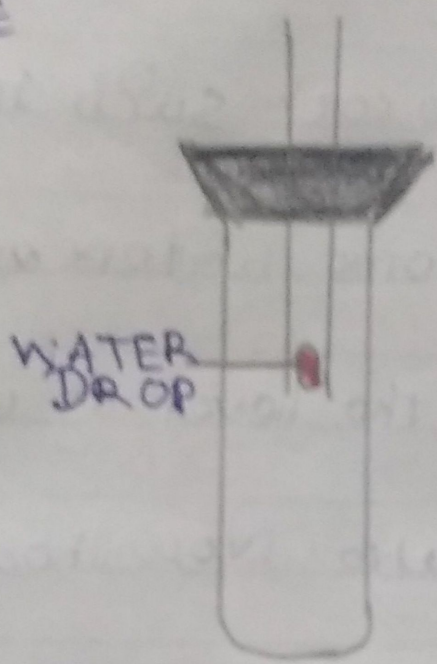
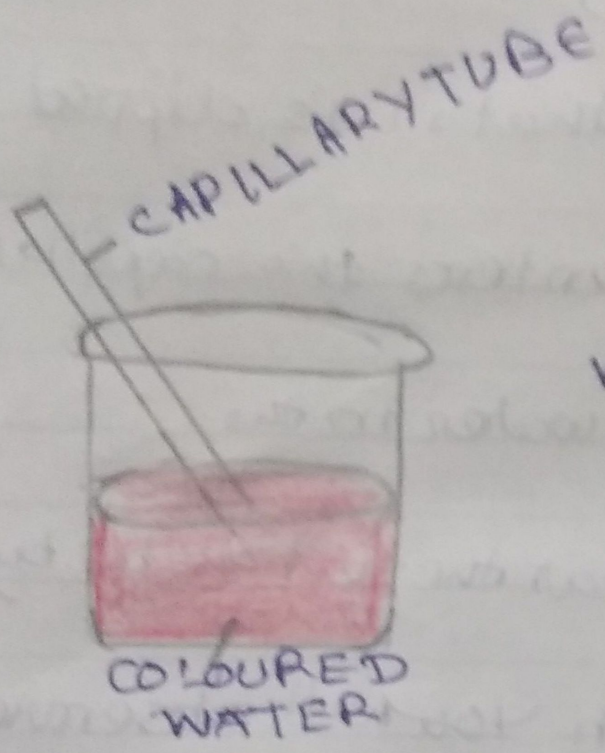
To show that a liquid expands on heating and contracts on cooling.



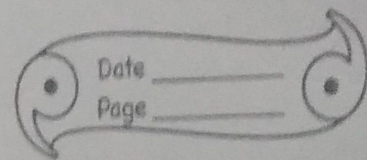
Activity 15



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.



Activity-16



Take some coloured water in a beaker.

Take a capillary tube and dip its one

end in the coloured water to take a

drop of it 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 move 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.