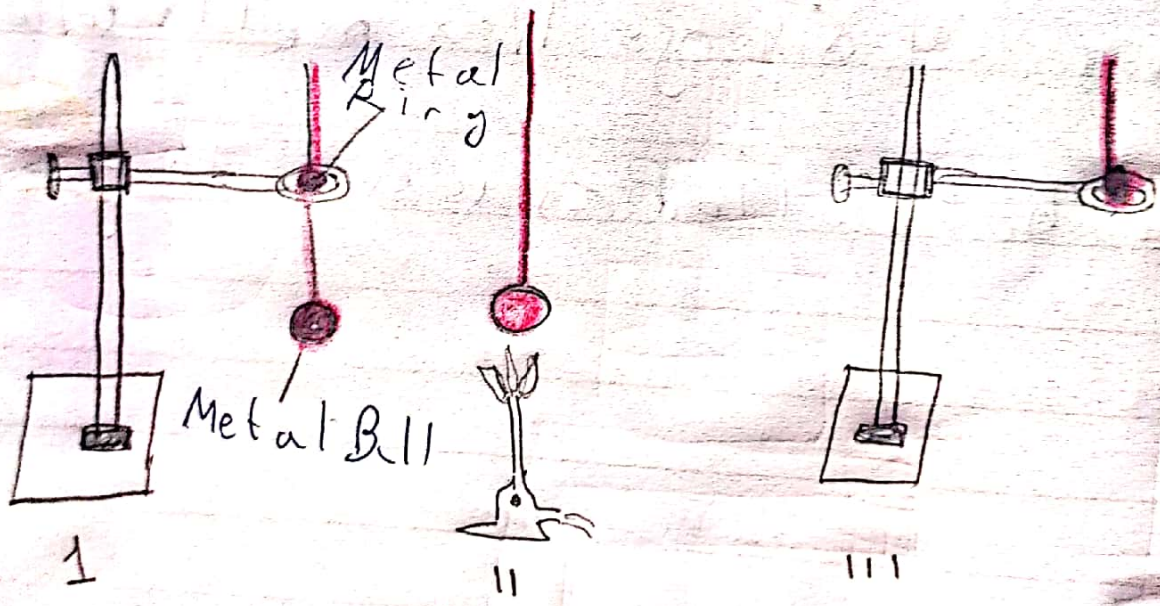


Activity - 14



I
Metal Ball
passes through
ring

II
Metal Ball
is heated

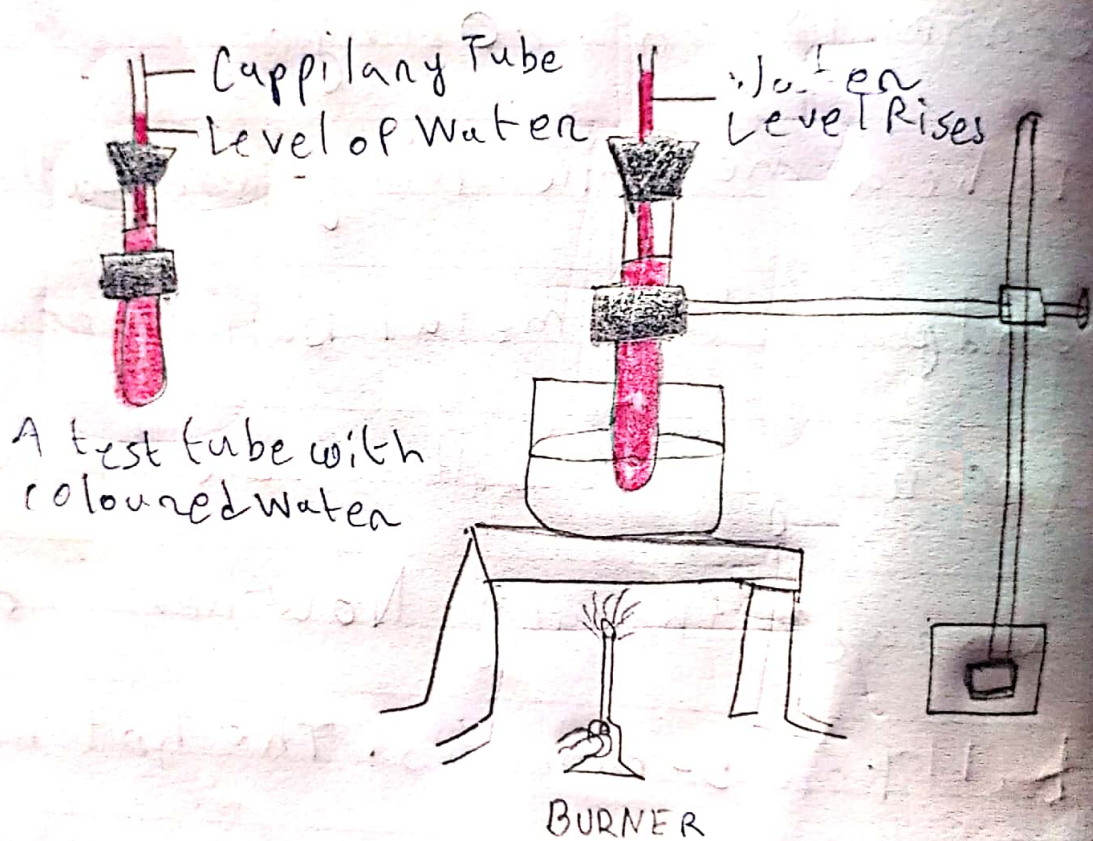
III
Metal Ball
is unable to
pass through
ring after being
heated

Activity - 14

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

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

Activity 15



Activity 15

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

Take a test tube with cork. Fit a capillary glass tube through a hole in a 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 water bath. You

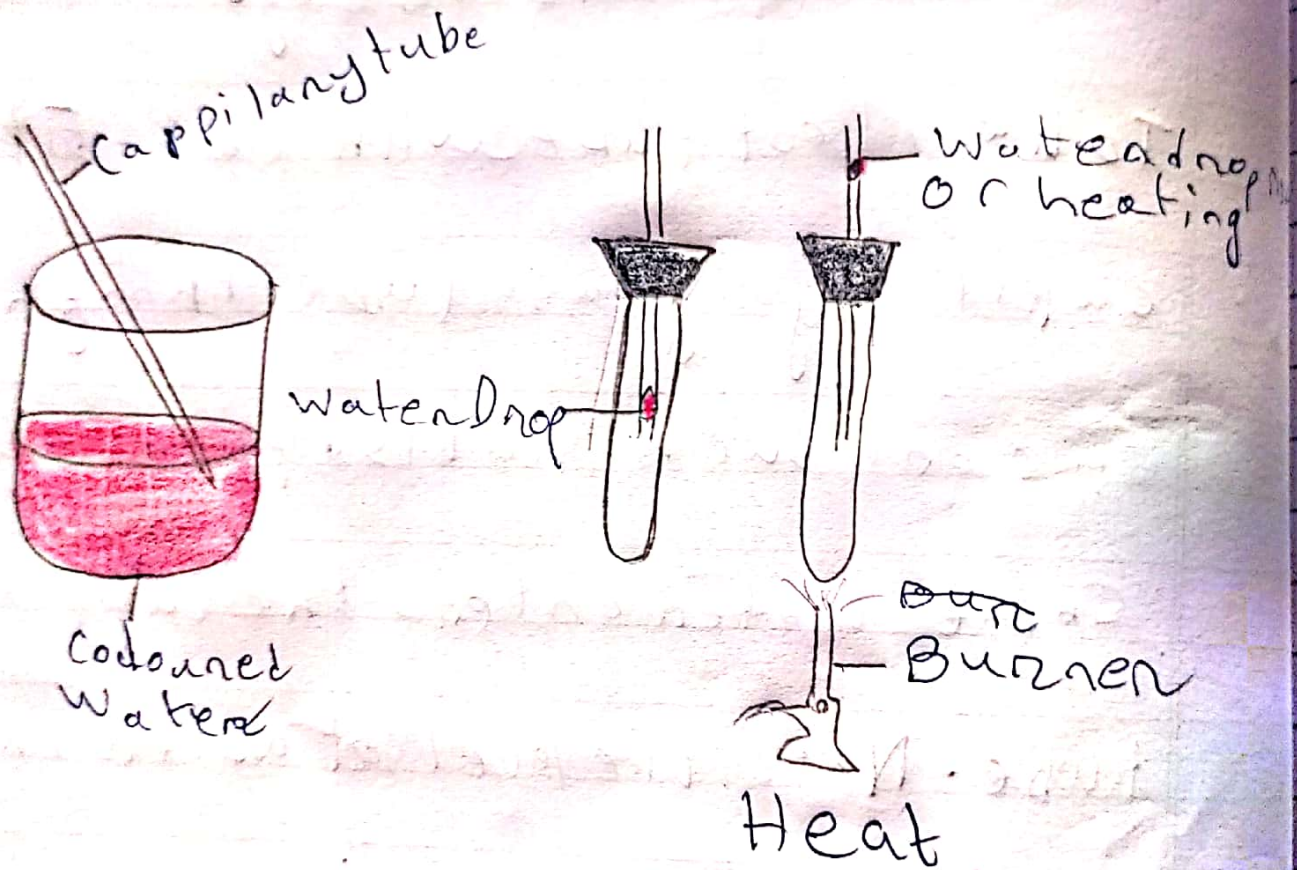
observe that level of water ^{column} increases

in capillary tube. On cooling test

tube, water level in capillary tube

decreases, showing that liquids contract

Activity - 16



Activity 16

To show thermal expansion of gas

1. Take some coloured water in beaker

Take a capillary tube and dip it's one

in capillary tube. Fit capillary tube

through hole in cork. Now fit cork

in test tube carefully. Now heat test

tube. After some time you observe

that drops of water. This because

air in test tube expands on heating

which pushes drop water up. Cool test

tube, the water comes down. This

shows air contact cooling