

Experiment 11

I. Aim : To show that oxygen is evolved during photosynthesis

II. Materials Required:

1. Beaker
2. Glass funnel.
3. Hydrilla Plant wigs
4. Water
5. Splinter
6. Matchbox
7. Test tube
8. Sodium Bicarbonate

III. Procedure:

- i. Hydrilla plant twigs are taken in a glass funnel
- ii. The funnel is inverted in a beaker containing water.
- iii. A test tube filled with water is inverted over the stem of the funnel.
- iv. A pinch of sodium bicarbonate is added in the water contained in the beaker, so that carbon dioxide is produced.
- v. The apparatus is kept in sunlight for a few hours.

IV. Observation:

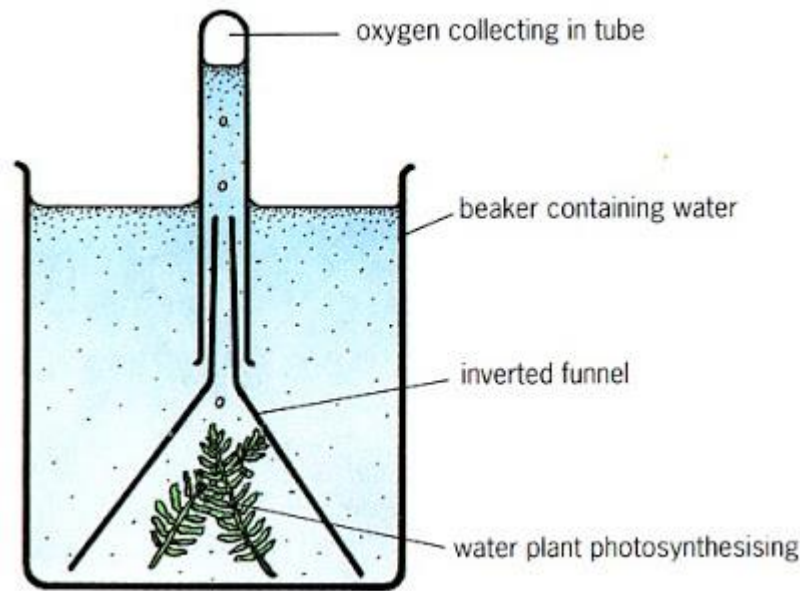
Bubbles are seen rising from the stem of the funnel. After sometime the test tube loses all its water and becomes empty. A glowing splinter is introduced in the test tube, it bursts into flames.

V. Inference:

The gas evolved in the test tube is oxygen as it supports combustion.

VI. Precautions:

- i. Hydrilla plant twigs should be completely submerged in water.
- ii. The empty test tube should be carefully removed by placing the thumb at the mouth of the test tube.
- iii. Sodium bicarbonate should be added to the water so that the plant gets carbon dioxide which is needed for photosynthesis.



Experimental Setup to show evolution of oxygen during photosynthesis.