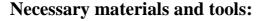


Oxygen Production of Photosynthesis



Water-weed, glass tub, funnel, test tube.

Description of experiment:

- a) Put the sprouts of ordinary water-weed or other water plants under the glass funnel while holding them underwater and suit the test tube onto the end of the funnel which is standing out. Shine light on it!
- b) After one or two hours remove the test tube carefully, and insert a smoldering lighter rod!
- c) We can do the experiment with 3 samples. Put one of them in the window, put the other in a shadowy place in the room, and the third in complete darkness. Compare the samples! In which had the most oxygen been produced?

Result:

- a) Bubbles will start to form and float upwards soon, photosynthetic oxygen will be started to be produced.
- b) The end of the rod will light up due to the oxygen.
- c) The sample in the window produced the most oxygen.

Explanation:

Plants photosynthesize in daylight and produce oxygen and organic material from carbon dioxide and water.

The intensity of the photosynthesis is heavily affected by the overall effect of the environmental factors. Firstly, it depends on two restrictive factors: the intensity of the light and the concentration of the carbon dioxide.

The overall equation of the photosynthesis is the following:

 $6 \text{ CO}_2 + 6 \text{ H}_2\text{O} + \text{light energy} \rightarrow \text{C}_6\text{H}_{12}\text{O}_6 + 6 \text{ O}_2$