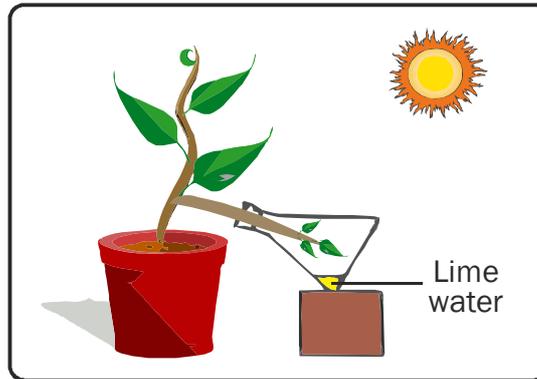


01 Study the diagram below.

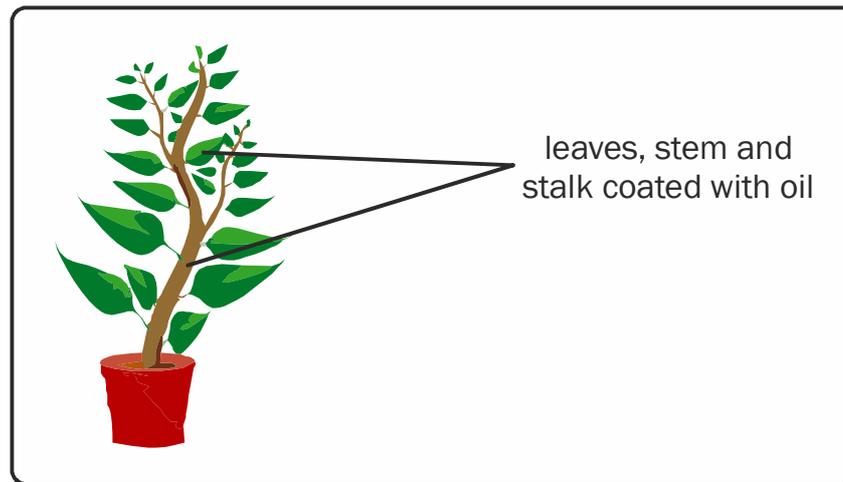


A branch from the plant sown is clamped inside a conical flask containing some limewater.

- (a) What happens to the limewater after a few hours ?
- (b) Explain your answer in (a).

- (a) The limewater remains clear.
- (b) There is sunlight for the plant to carry out photosynthesis. Carbon dioxide is taken in by the plant while oxygen is produced during photosynthesis. Oxygen does not react with the limewater. Thus, the limewater remains clear

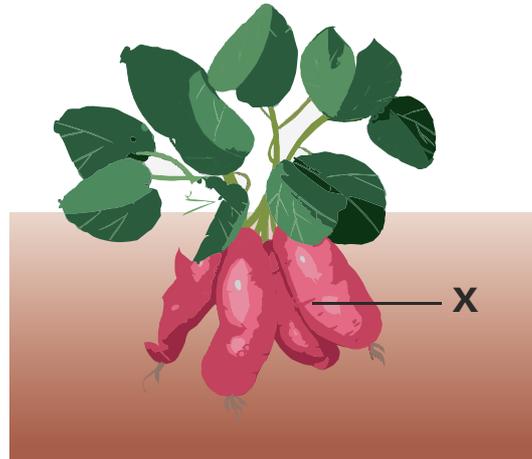
02 In an experiment, Keith spreads oil over the stem, leaf stalks and both surfaces of the leaves of a plant, as shown in the diagram below. He puts the plant near an open window and waters it every day.



- (a) What do you think will happen to the plant after a week ?
(b) Explain your answer in (a).

- (a) The plant will die/wither.
(b) The oil prevents gases from entering the plant. Therefore, the plant will not have oxygen for respiration and carbon dioxide for photosynthesis.

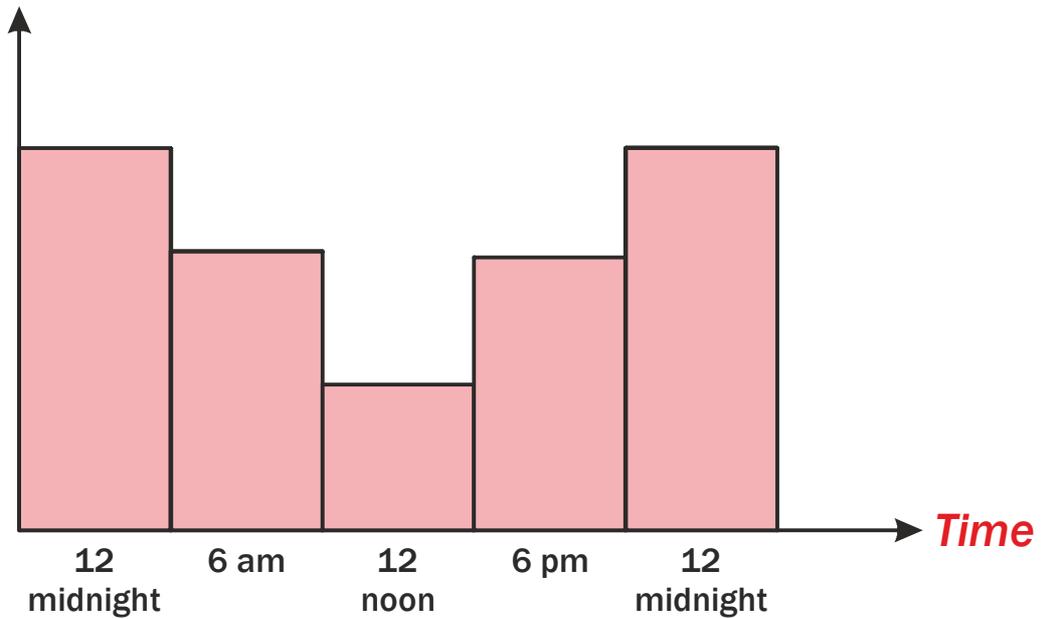
03 Study the diagram below.



- (a) This is a picture of a sweet potato plant. Name the part of the plant labelled 'X' ?
- (b) How is Part 'X' useful to the plant ?

- (a) X is a storage root.
- (b) Root of the sweet potato plant stores extra food.

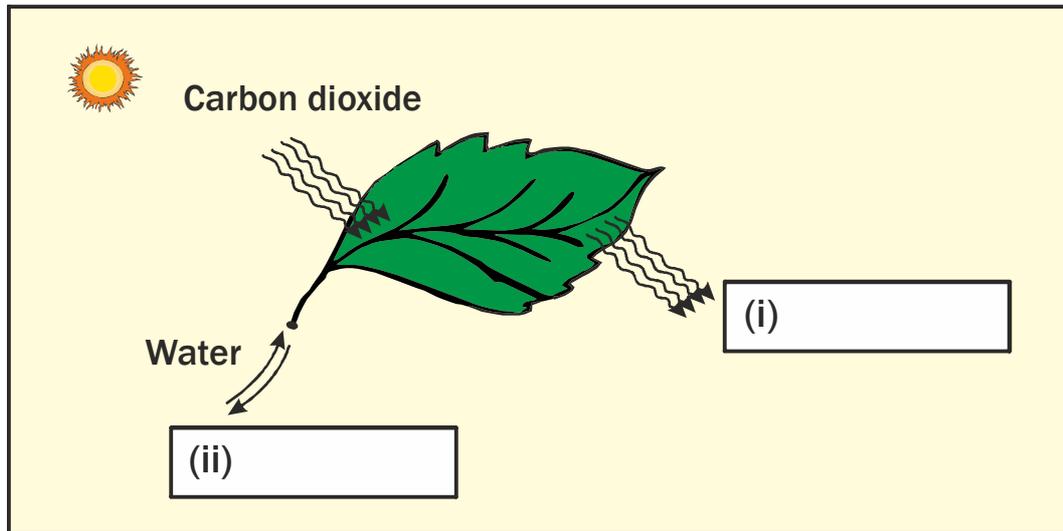
04 The bar graph below shows the change in the amount of carbon dioxide in the air over a period of twenty-four hours in a park.



- (a) What do you notice about the amount of carbon dioxide within this period of time ?
- (b) Explain your answer for part (a).

- (a) The amount of carbondioxide in the air is reduced.
- (b) Green plants use carbondioxide to make food in the presence of sunlight by taking in water from soil. At noon as there is more sunlight it takes in more carbondioxide. Hence at noon there is reduced carbon dioxide in air.

05 The diagram below shows a process that takes place in the leaves of plants.



- (a) Identify the products that are produced in the process shown below. Write down the product in the boxes.
- (b) Why is this process important ?

- (a) (i) Oxygen
(ii) Sugar
- (b) Plants photosynthesis to make food for survival. During the process, carbon dioxide is used up and is removed from the atmosphere. In return, oxygen is produced, which is needed by animals for respiration. Animals also depend directly or indirectly on plants for food.