

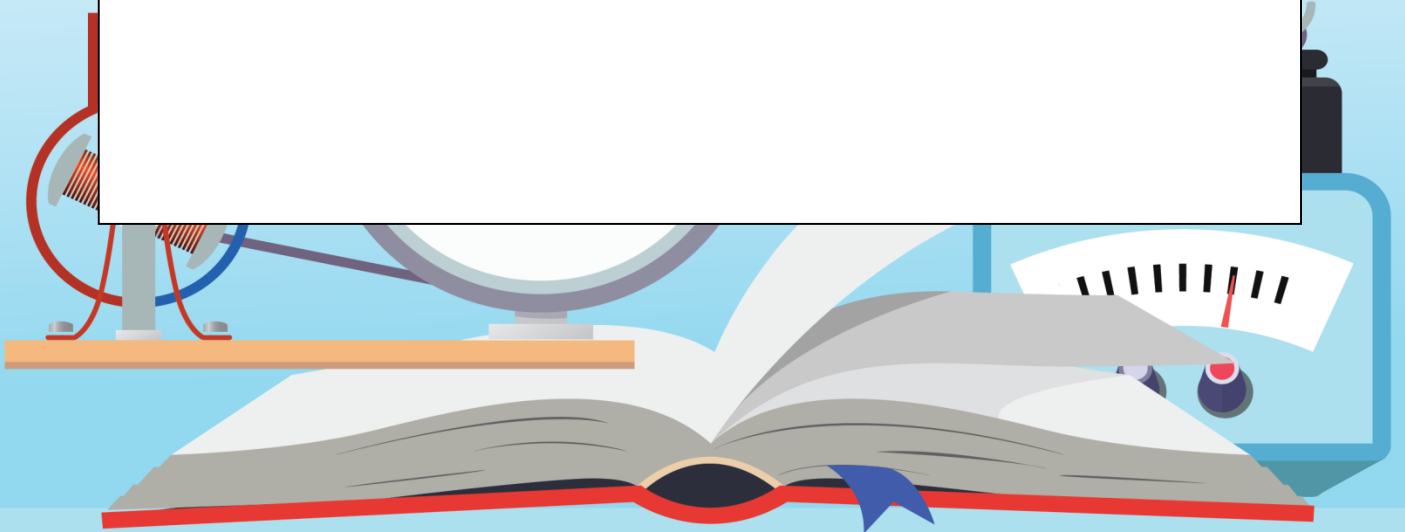
Subject – Science

Grade - 8

Competency – 01

Competency level – 1.7

**Lesson - “Main biological processes
in plants”**



Processes

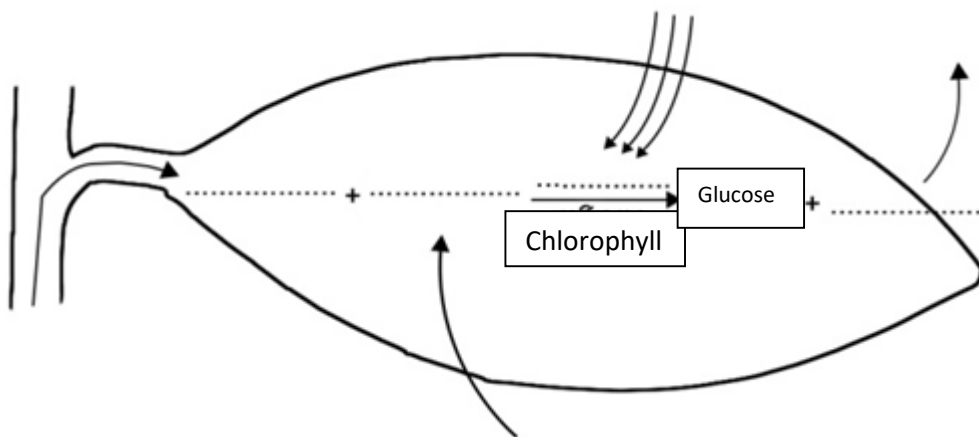
1. Photosynthesis
2. Transportation
3. Transpiration
4. Guttation

1. Photosynthesis

1. Photosynthesis is,

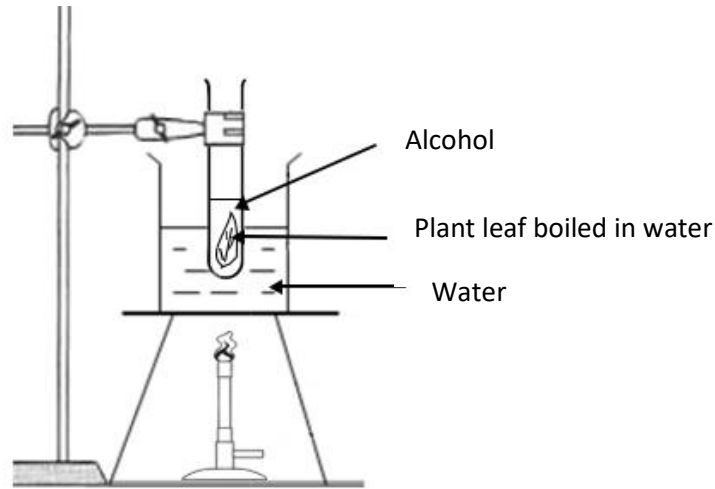
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2. Complete the following chart including relevant words.



Testing products of photosynthesis

This is a step of the test apparatus prepared to test a product of photosynthesis.



Write the step of the test before and after the above step.

Step of the test before.....

After the above step.....

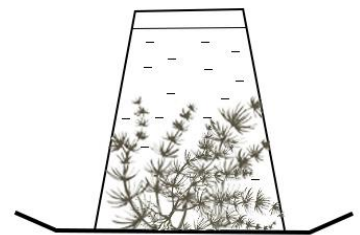
Write down the observation when a drop of iodine solution is added to the leaf.

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Conclusion: -

- ❖ Add few hydrilla or vallisnaria plants to a glass of water.

Turn it upside down on a saucer. Keep this apparatus in a place having plenty of sunlight.



- 1) What is the observation?
- 2) What is the gas collected at the bottom of the glass? (Confirm with the text book)

- ❖ Prepare a poster on the global importance of photosynthesis.

2) Transportation

Transporting raw materials needed for biological processes of plants and products produced to the relevant places is transportation.

Transporting methods (**mechanics**)

- I.
- II.
- III.

I. Diffusion

Add a drop of an ink to a glass of water and observe.

- 1) What is the observation?

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- 2) What is the transporting method used for it?

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- 3) Define the above transporting method?

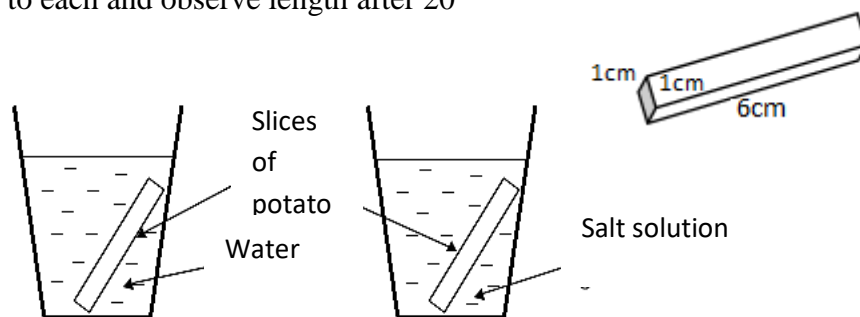
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II. Osmosis

Take 2 slices of potato having dimensions of 1cm X 1cm X 6cm.

Take 2 glasses of water filled with $\frac{2}{3}$ of water. Add 4 spoons of salt in to one and dissolve.

Put 2 slices of potato to each and observe length after 20 minutes.



1) What is the observation?

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2) This method of transportation is important for absorbing water to plant. What is this method?

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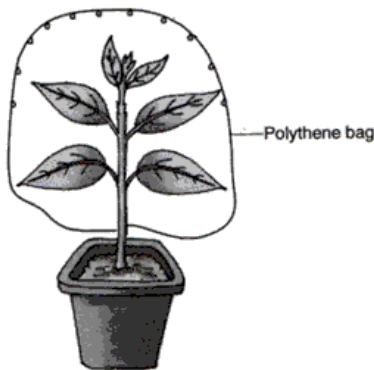
3) Assignment.

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Work on 11.2 Activity in the text book. (page 52)

3)Transpiration

Select a branch of a plant and cover it using a transparent polythene.



1) What is the observation after one hour?

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2) The above observation is due to removal of water as water vapor. What is this process called as ?

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3) Importance of transpiration

- i.....
- ii.....
- iii.....

Write one adaptation of the following plants to reduce transpiration.

Plant	Adaptation to reduce transpiration
Komarika
Cactus
Kaneru
Rubber
Araliya
Navahandi

4) Guttation

Select a place with grass. Add more water to that place. Observe grass edges at about 7.00 am in next day morning.

1) What is the observation?

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2) What is the process relevant to the above observation?

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3) Write the differences between transpiration and guttation?

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