



Photosynthesis.

Lesson Objectives

- ▶ Define Photosynthesis
- ▶ Outline the process of photosynthesis
- ▶ Identify the products of photosynthesis

What do these things have in common?

1



2



3



4



How do plants grow?

0:30

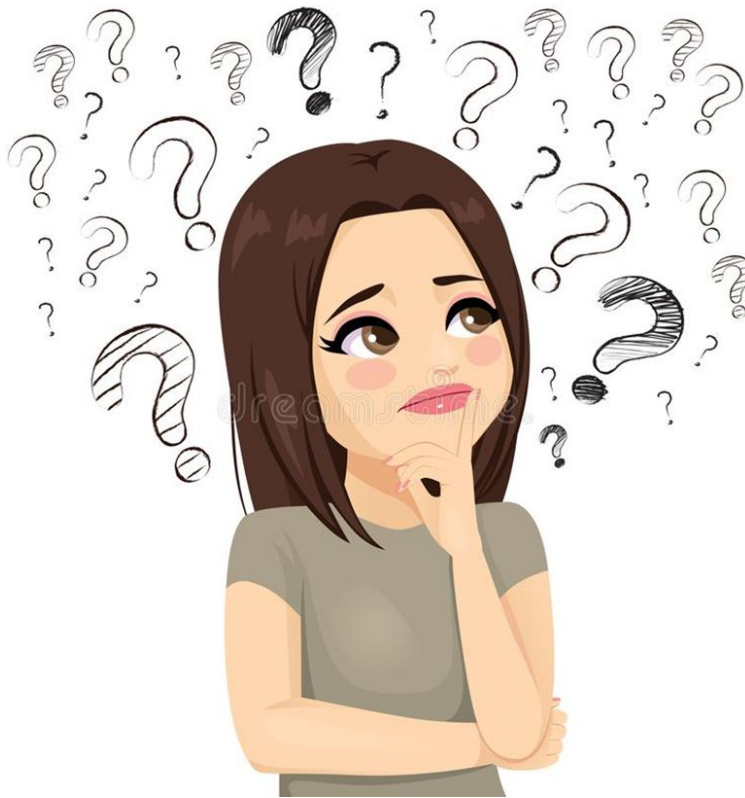




Definition

- ▶ Photosynthesis is the process by which green plants and some other organisms use **sunlight energy** to convert **carbon dioxide** and **water** into glucose and oxygen.

What is needed for Photosynthesis?

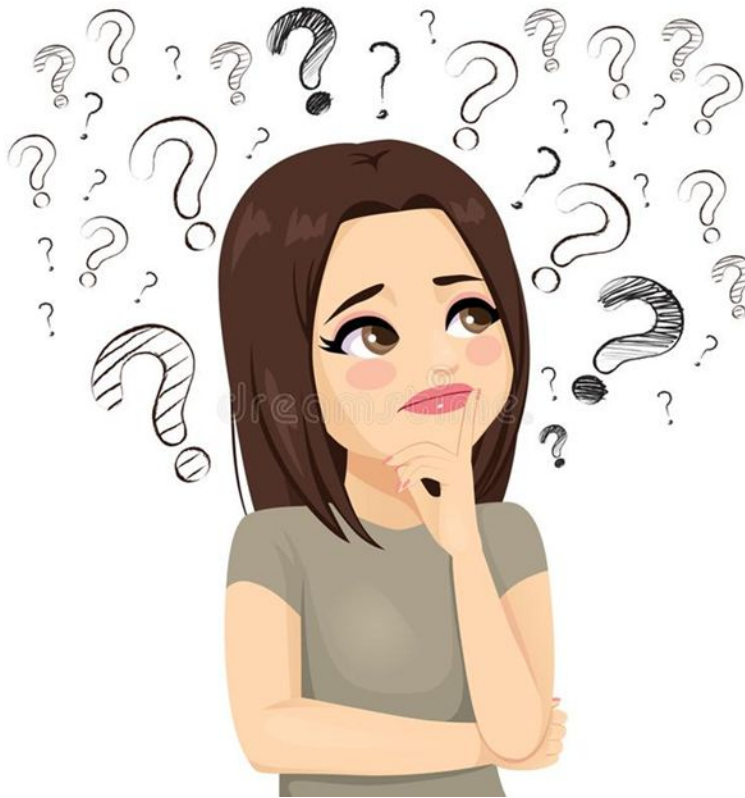


Materials needed for Photosynthesis

- ▶ Sunlight
- ▶ Water
- ▶ Carbon Dioxide
- ▶ Magic ingredient

What are the products from Photosynthesis?

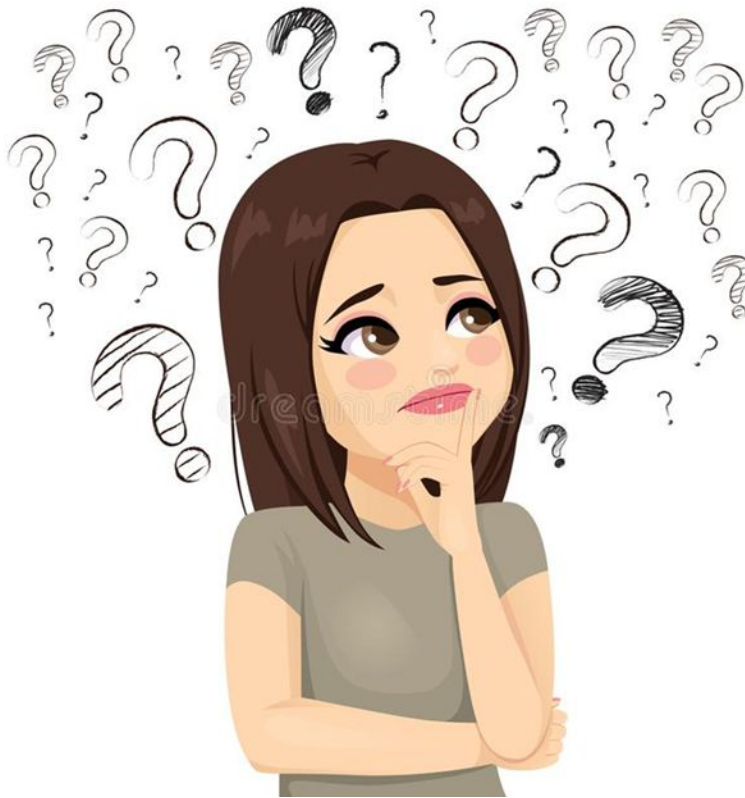
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Products from Photosynthesis

- ▶ Oxygen
- ▶ Glucose (sugar)

Why can't humans Photosynthesis?



The magic ingredient!

CHLOROPHYLL

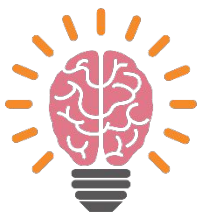




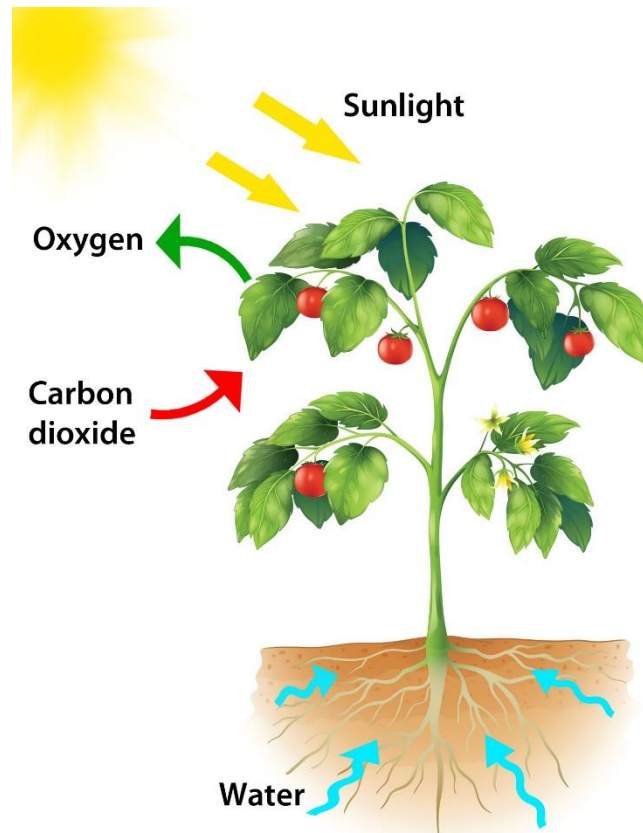
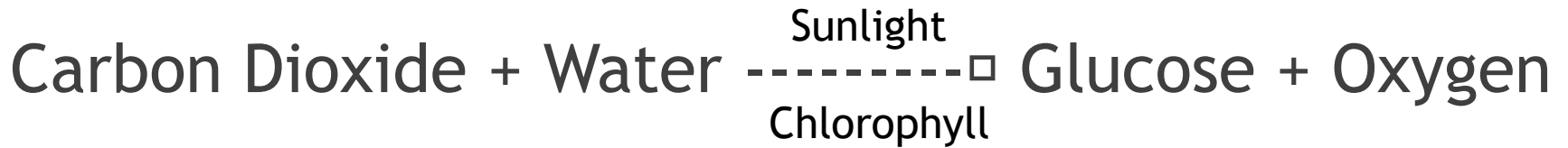
The role of chlorophyll in Photosynthesis

- ▶ The green pigment chlorophyll is the most common pigment in plants..
- ▶ Chlorophyll can trap some of the light that strikes it and use the energy that light contains to break the molecules of water and carbon dioxide apart to make glucose.





Word Equation



Materials needed for Photosynthesis

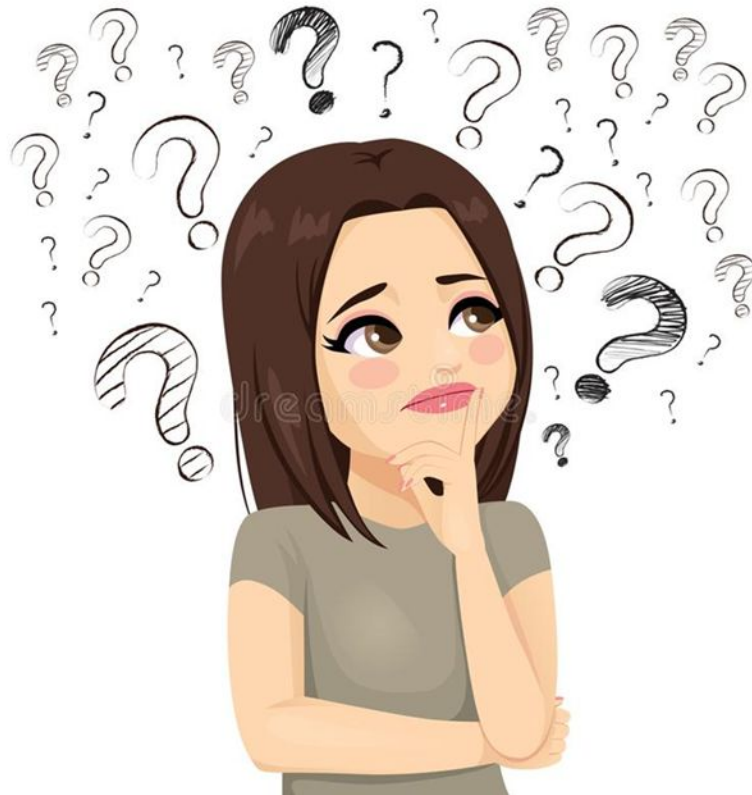
- ▶ Sunlight
- ▶ Water
- ▶ Carbon Dioxide
- ▶ Chlorophyll

Summary

- ▶ Photosynthesis is the process by which green plants and some other organisms use **sunlight energy to convert carbon dioxide and water into glucose and oxygen.**
- ▶ Word equation for Photosynthesis: Carbon Dioxide + Water $\xrightarrow[\text{Chlorophyll}]{\text{Sunlight}}$ Glucose + Oxygen
- ▶ Chlorophyll is found in the leaf of the plant and is where photosynthesis takes place.
- ▶ Glucose and oxygen are the two end products of photosynthesis.

Next Time in Science Class....

Who would win in a fight a lion or a bear?



DON'T FORGET YOUR
ASSIGNMENT!!