



# Photosynthesis

6.L.1.2 Explain the significance of the processes of photosynthesis, respiration, and transpiration to the survival of green plants and other organisms.

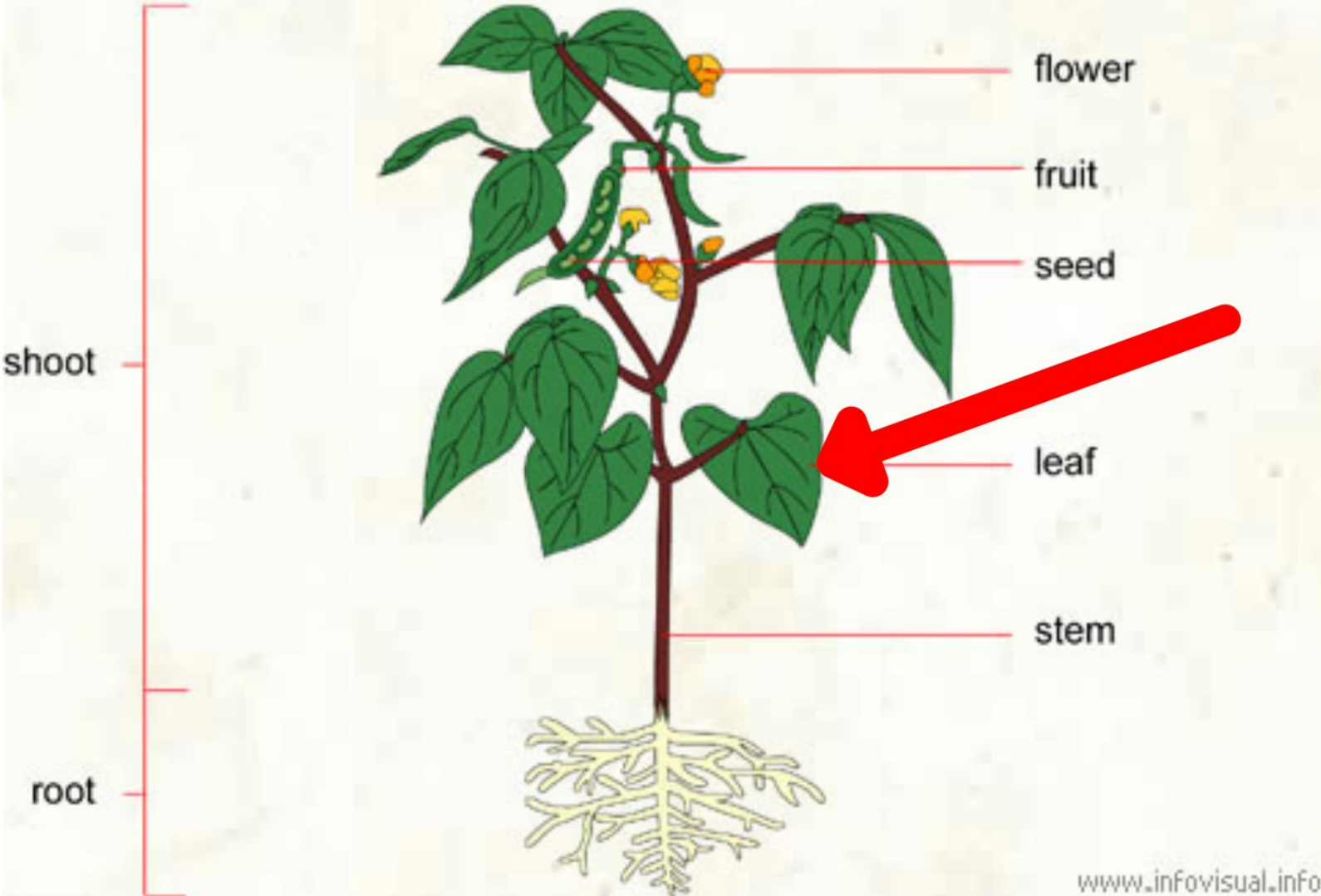
# Consider...

Do most plants eat?

How do plants have energy to  
grow, make flowers, etc.?

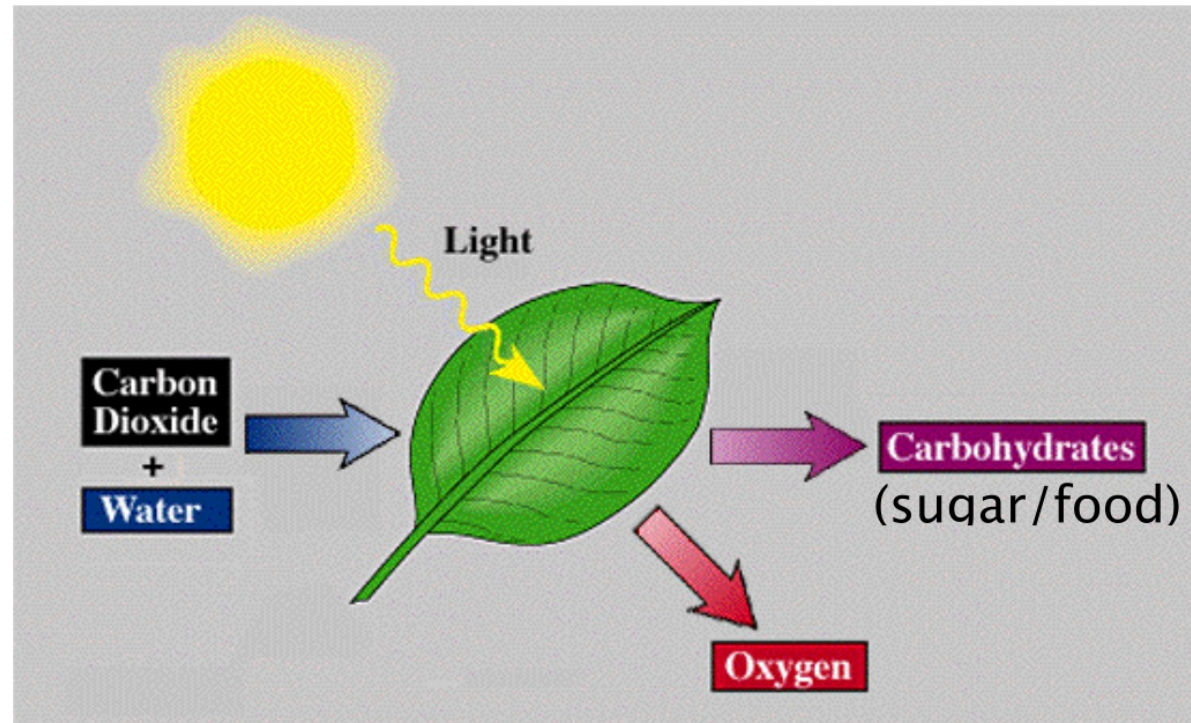
Why are most plant leaves green?

# STRUCTURE OF A PLANT



# What is photosynthesis?

A process in which plants make oxygen and sugar.

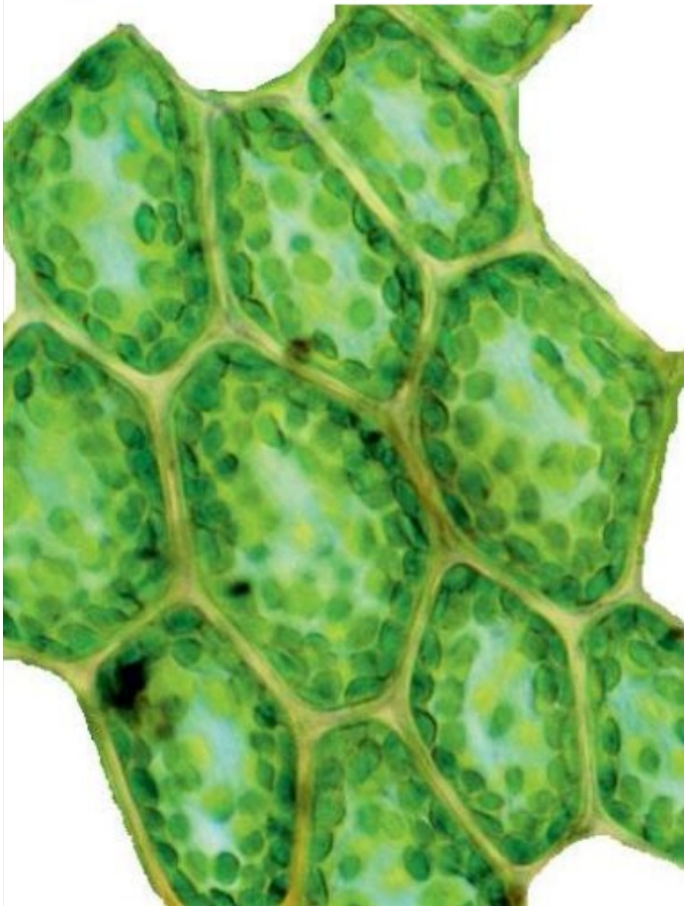


# Parts of the leaf...

Chloroplast: cell where photosynthesis occurs

Stomata: Opening, gas exchange ( $O_2$ ,  $CO_2$ )

Guard Cells: Controls opening of stomata

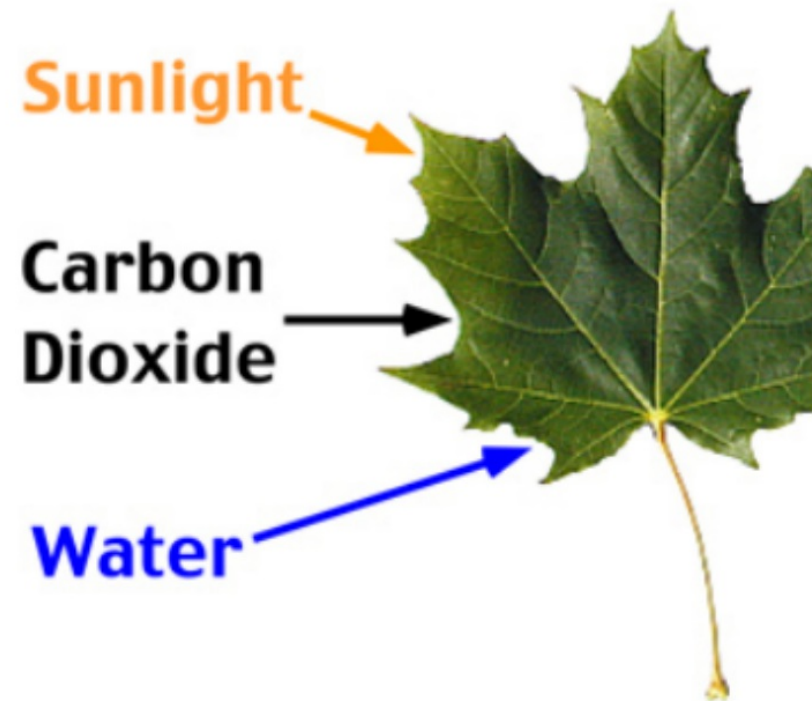


## **In order for photosynthesis to happen...**

*Plants need to take in...*

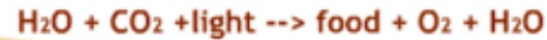
1. Carbon dioxide (CO<sub>2</sub>)
2. Water (H<sub>2</sub>O)
3. Sunlight (energy)

**(INPUT)**



# Steps of photosynthesis

Photosynthesis



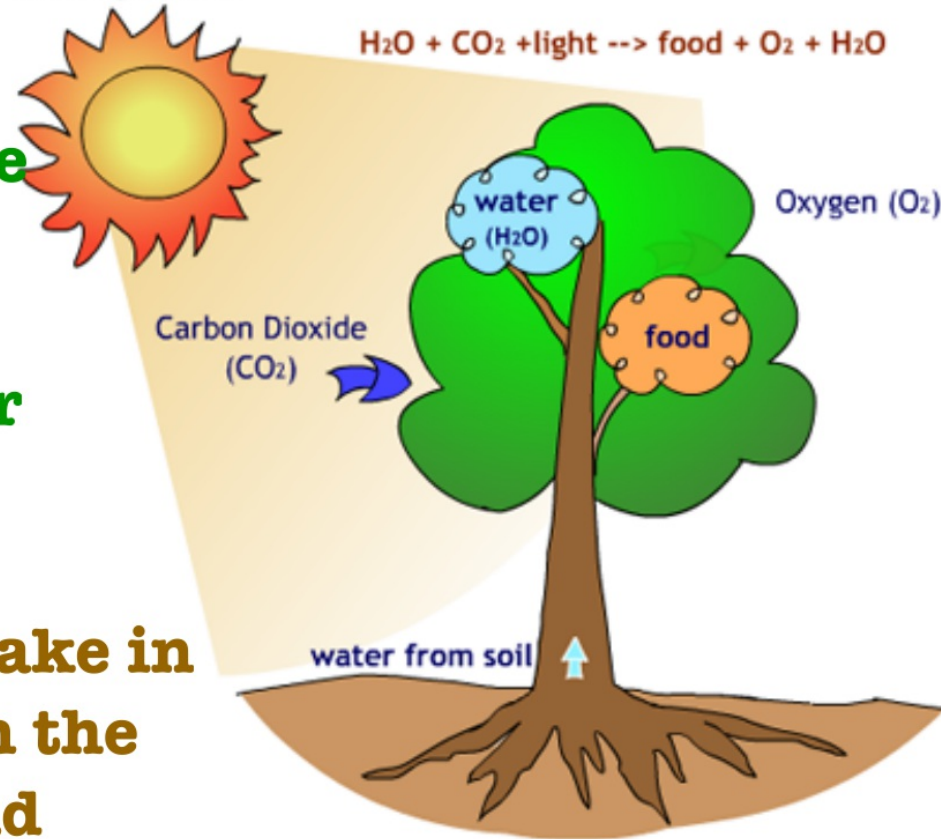
**1. Plants take in CO<sub>2</sub> from the air through their stomata**

**2. Plants take in H<sub>2</sub>O from the ground**

**3. Plant chloroplast absorb energy from the sun...**

**4. Oxygen is made**

**5. Food for the plant is made (main goal)**



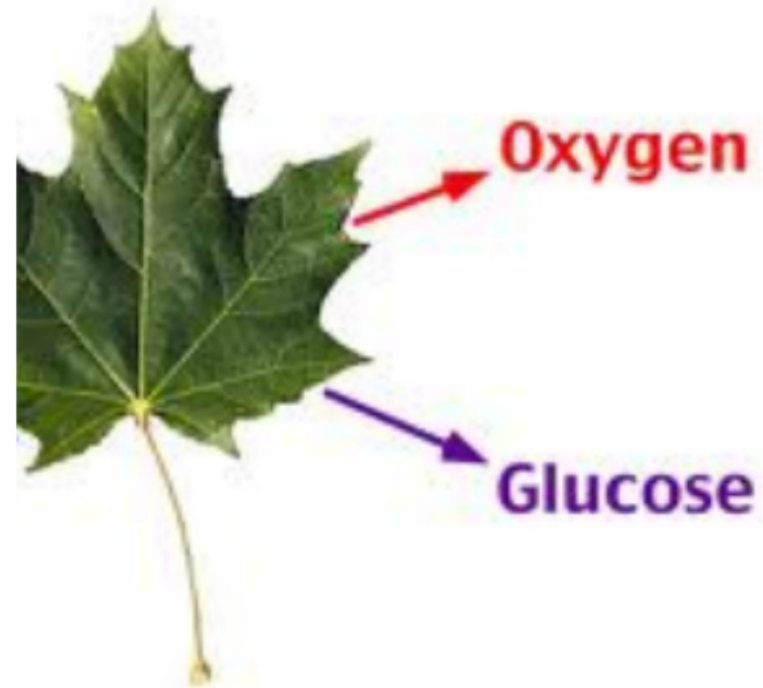


## At the end of photosynthesis...

*Plants have produced...*

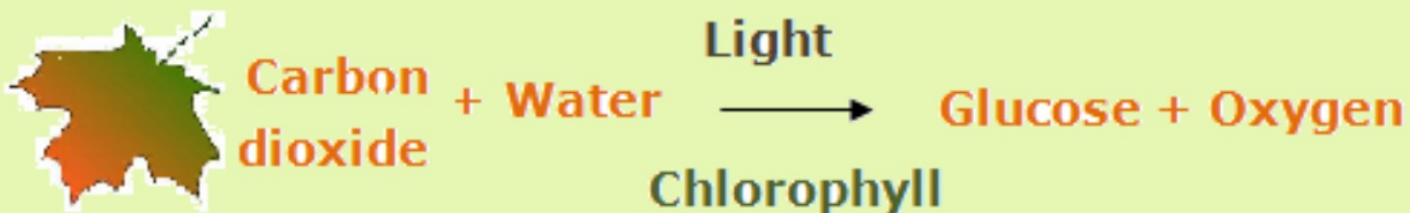
1. Oxygen ( $O_2$ )
2. Sugar/ food ( $C_6H_{12}O_6$ )

**Results  
(outputs)**

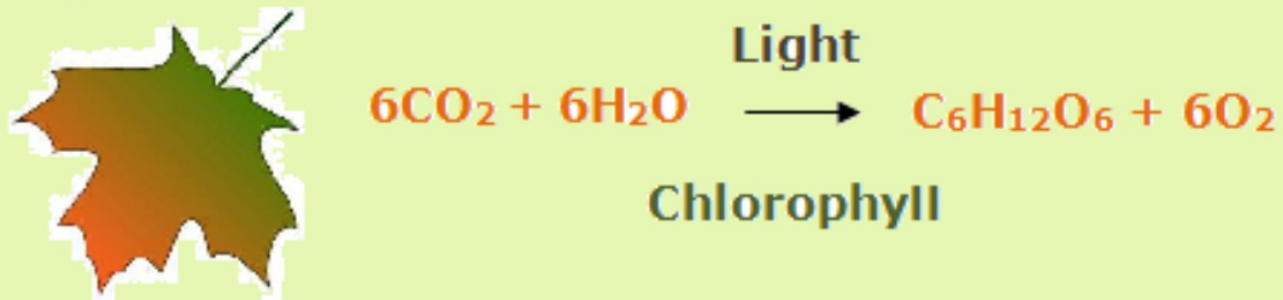


## Photosynthesis

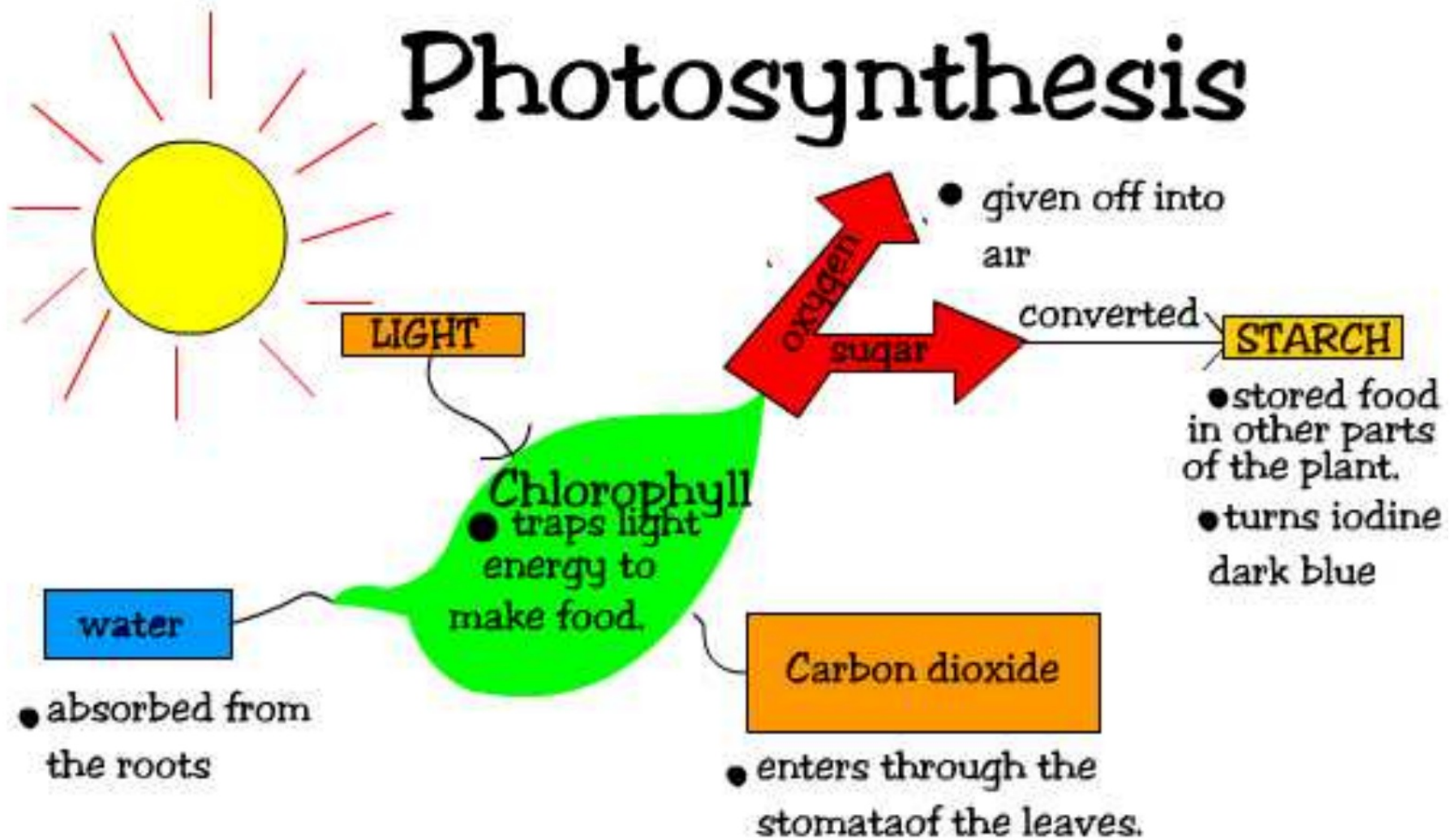
### Word equation



### Symbol equation



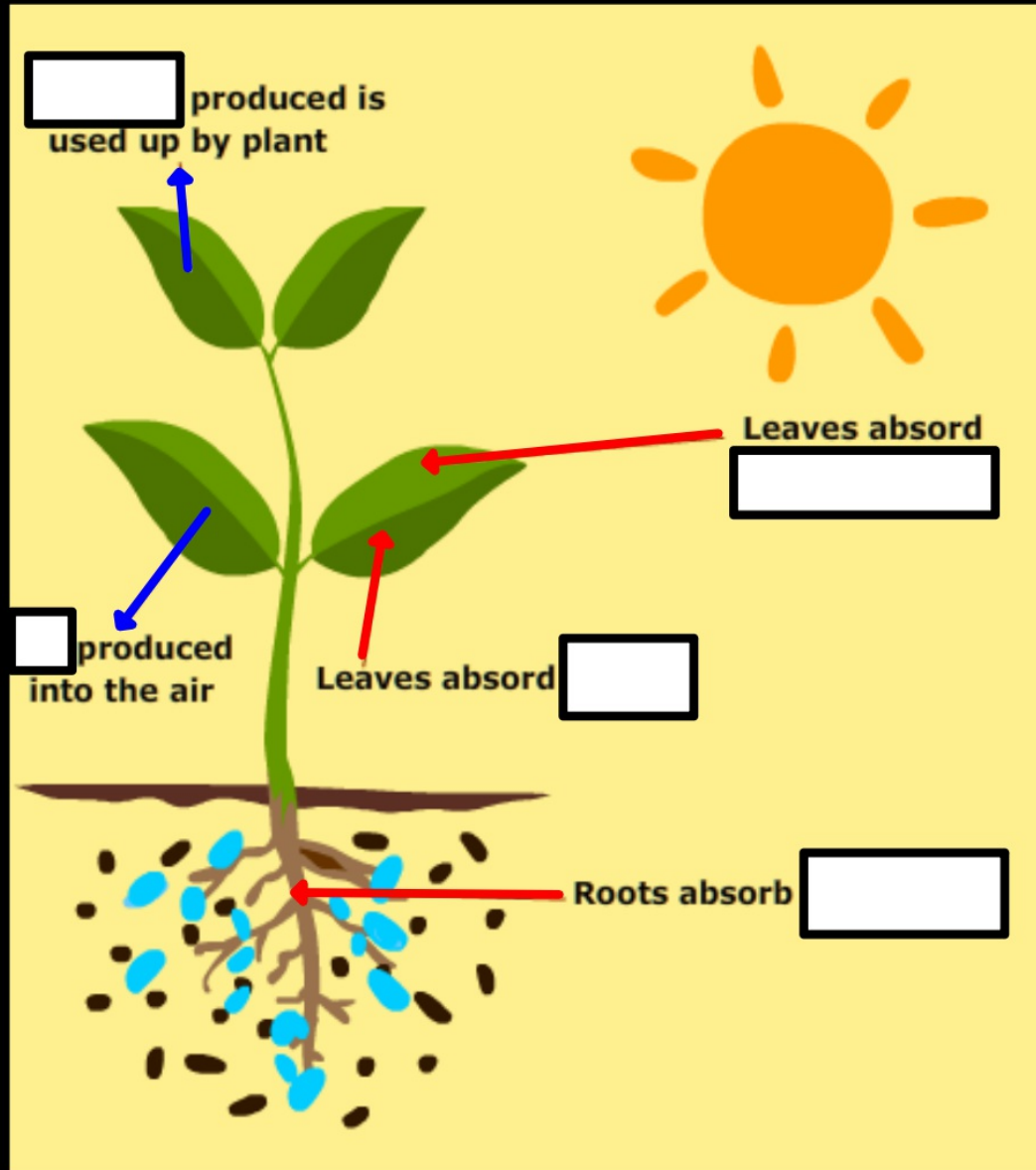
# Photosynthesis



A photograph of green maple leaves with the text "Photosynthesis Clip" overlaid in blue. The leaves are vibrant green and fill the frame, with some branches visible. The background is a soft, out-of-focus light green. The text is centered and written in a blue, serif font.

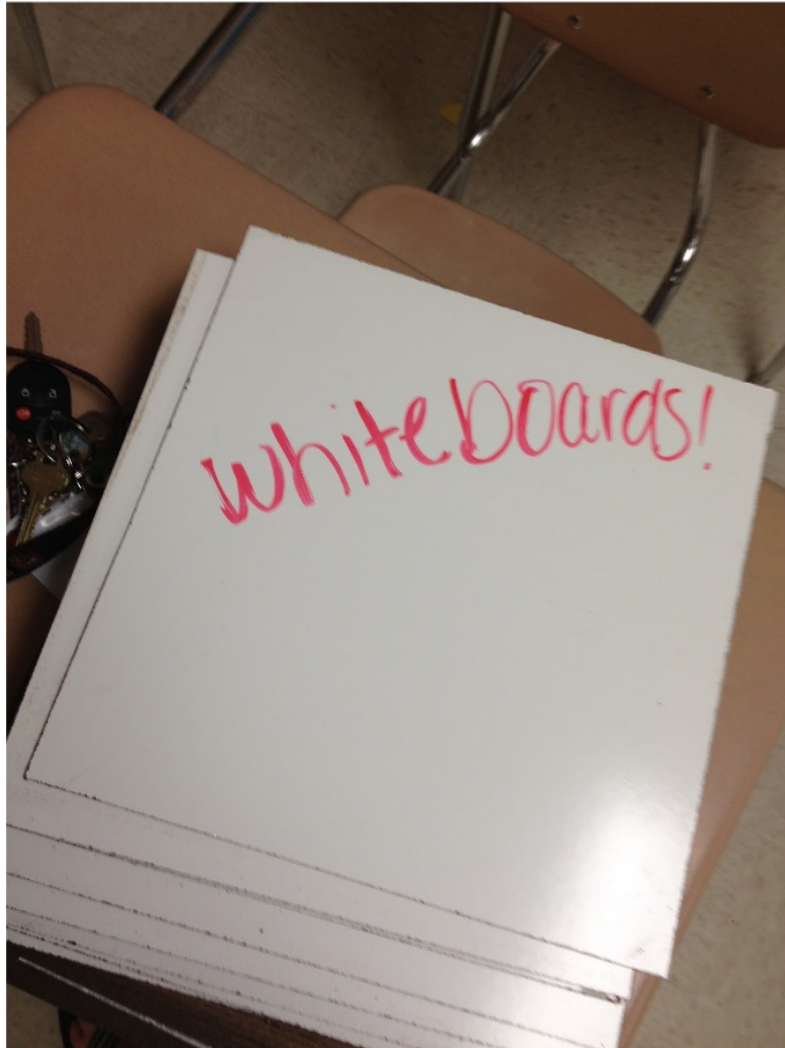
Photosynthesis  
Clip

# Photosynthesis Diagram



Formula =  
\_\_\_\_\_ + \_\_\_\_\_ +  
light energy  
=  
\_\_\_\_\_ + \_\_\_\_\_

# Whiteboard Activity



2 writers/  
researchers

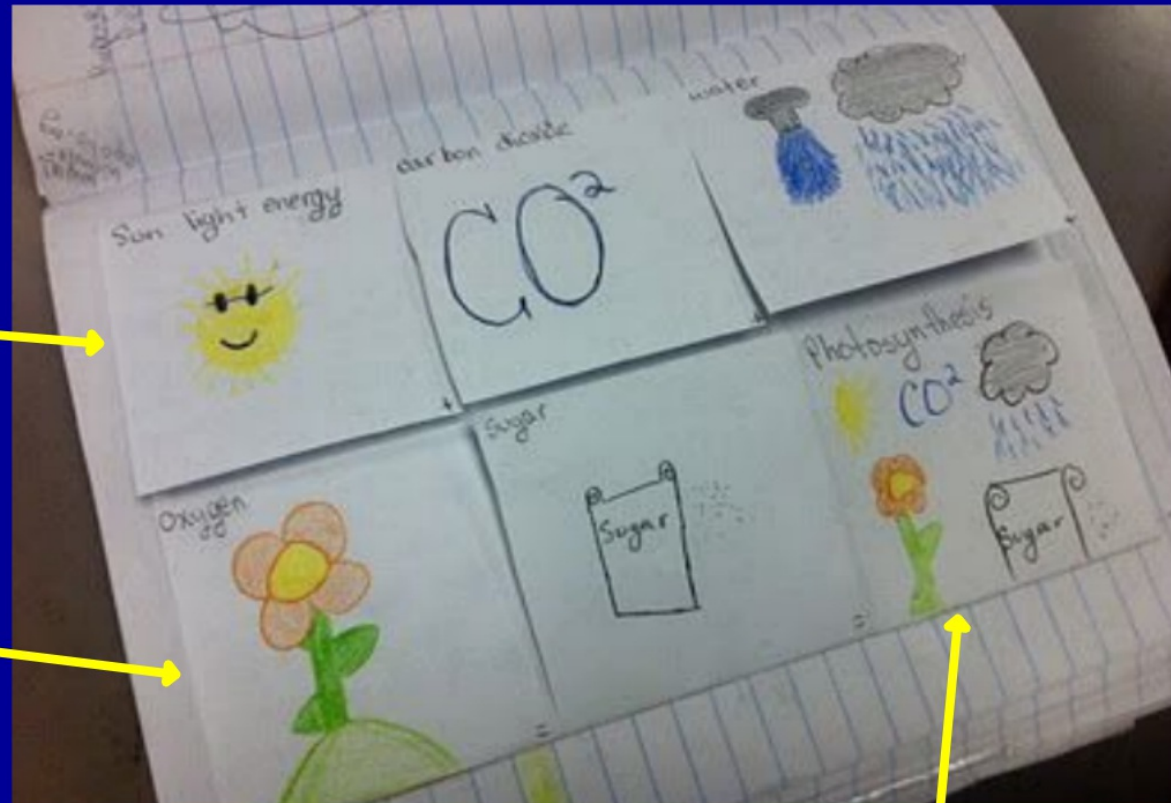
2 drawers/  
presenters

**(read aloud/write  
Q &A)**

# Photosynthesis Flipbook

Inputs

Outputs



Summary

Under flap: Explain how it's involved in photosynthesis