

After the experiment....

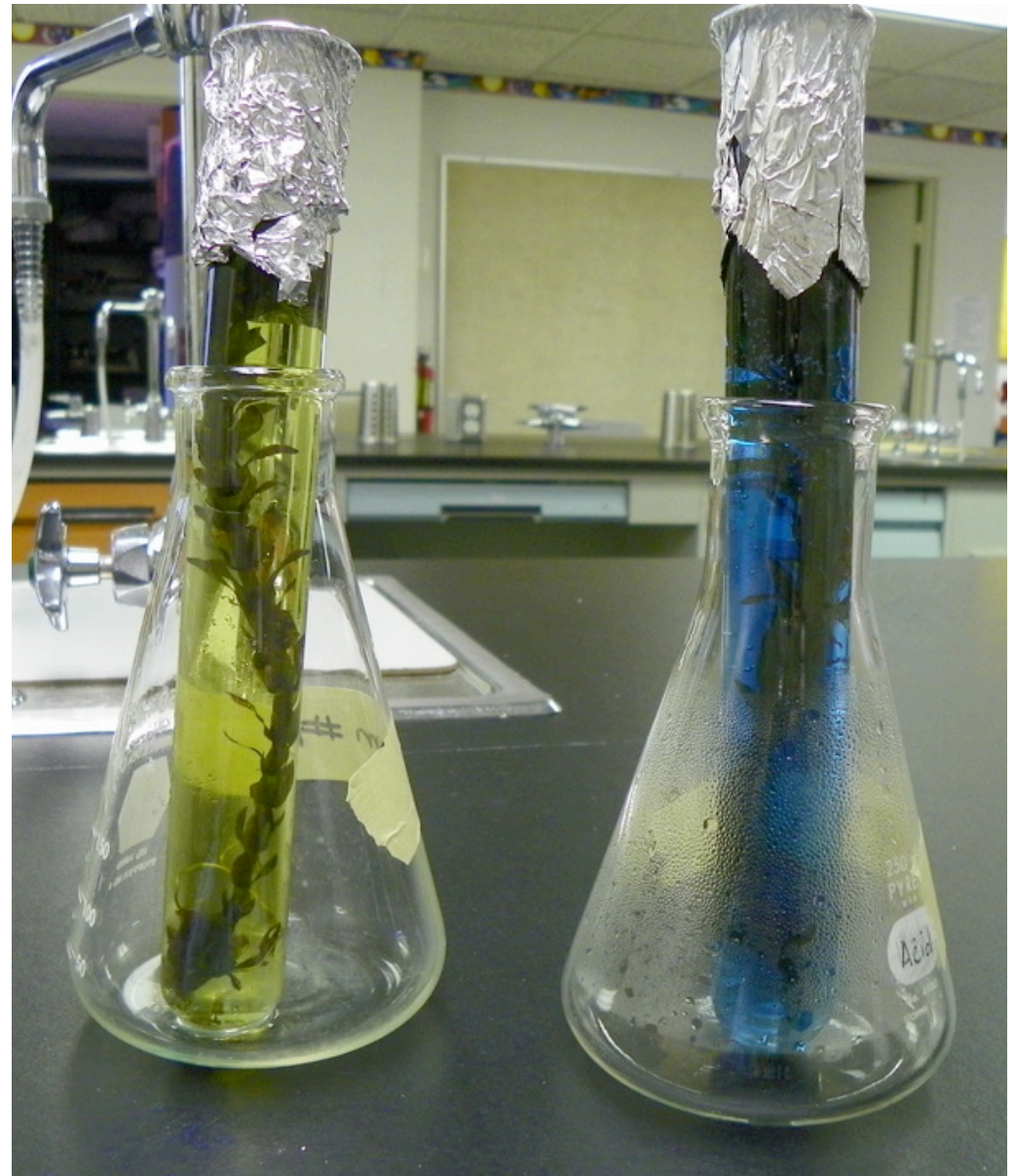
What chemical reaction do plants do
in the light?

Reactant of Photosynthesis?



Reactant of Photosynthesis?

1. What does the yellow green color indicate in the BEFORE picture?
2. How is the solution changed after being in the light for 24 hours?



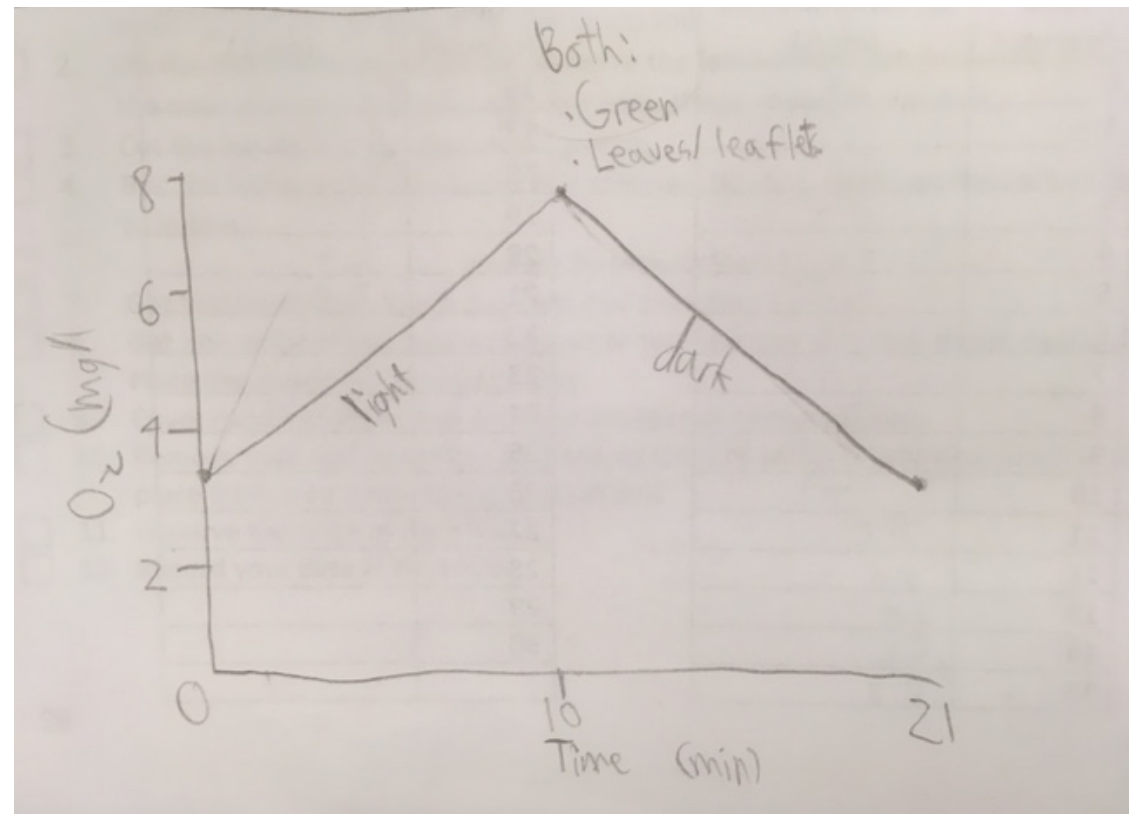
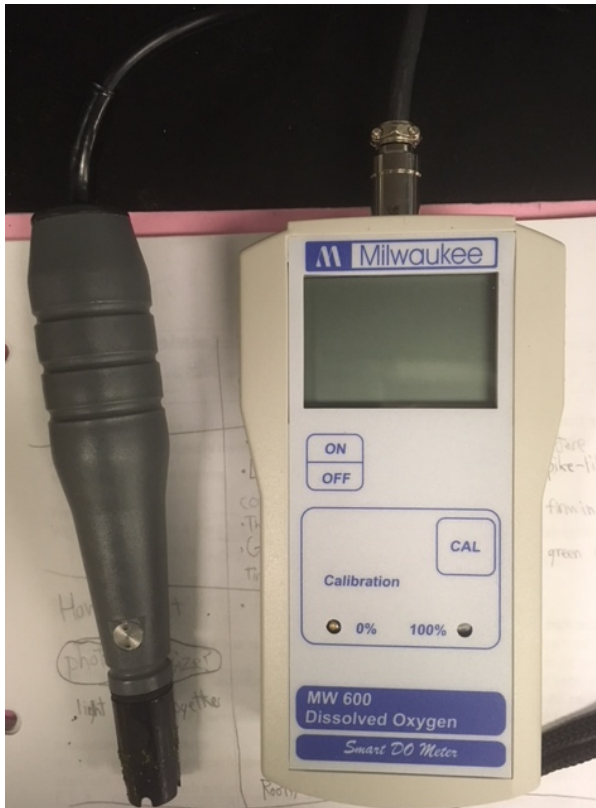
BEFORE
Exhaled Air + Elodea

AFTER 24 hr LIGHT

Product of Photosynthesis?



Product of Photosynthesis?



Plants Photosynthesis

- Chemical Rxn to Make Food: What happens to the molecules?

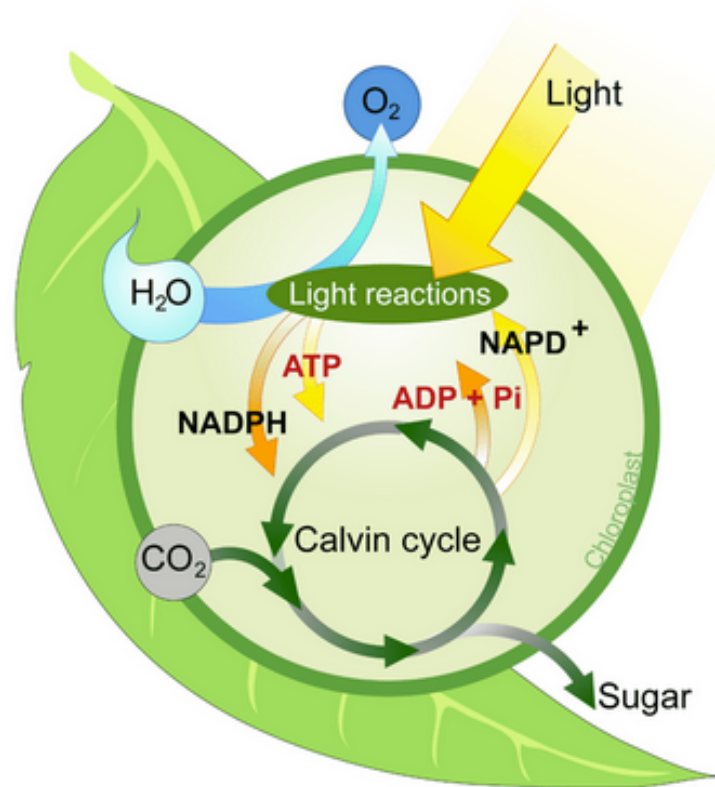
Matter: Where do the oxygen atoms in the products come from?



How do you think researchers figured it out? (Hint: think rats)

Analyze a representation—how does this relate to our evidence?

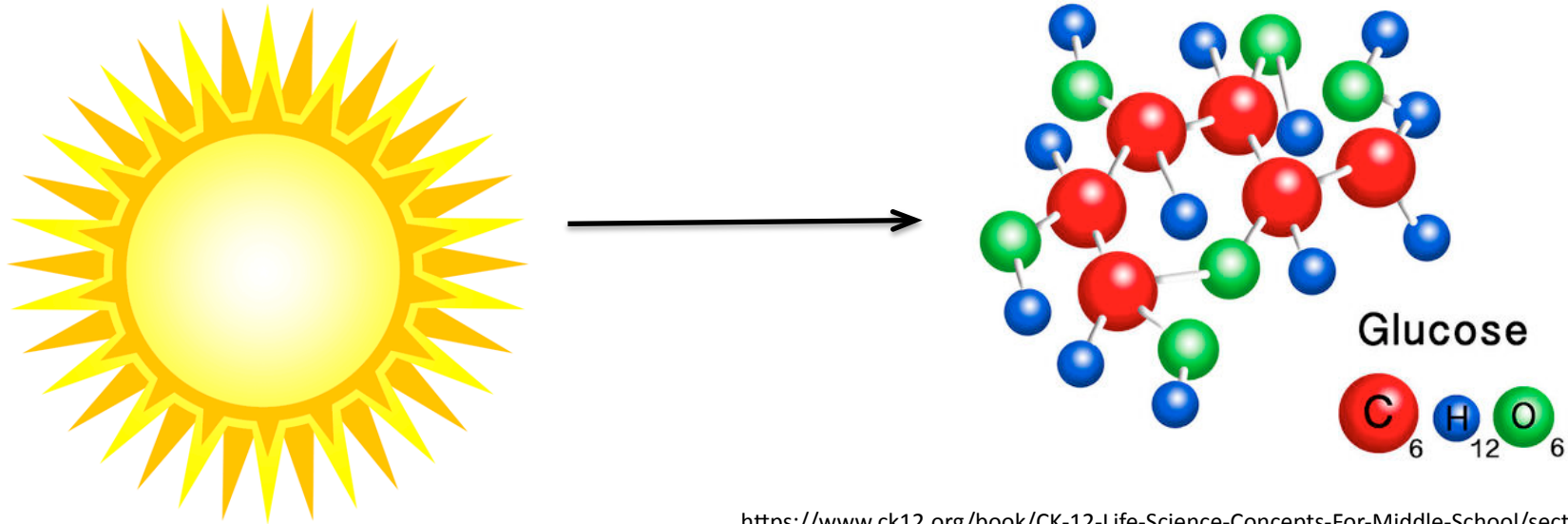
Photosynthesis



Plants Photosynthesis

- Energy: What is the energy conversion?

light energy converted to chemical energy in glucose



Big White Sheet

- WHERE do the reactants come from? Evidence?
- WHAT happens to the products? Evidence?

Big White Sheet

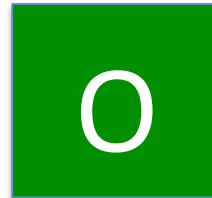
Reactants	Photo	synthesis	Products
Chemical Formula (<u>water</u>)	Chemical Formula (<u>carbon dioxide</u>)	Chemical Formula (Oxygen)	Chemical Formula (Glucose)
Evidence: Drawing and Description	Evidence: Drawing and Description	Evidence: Drawing and Description	Evidence: Drawing and Description
Model of molecules Draw and Label	Model of molecules Draw and Label	Model of molecules Draw and Label	Model of molecules Draw and Label
CER: What is photosynthesis?			

Color Coded Objects

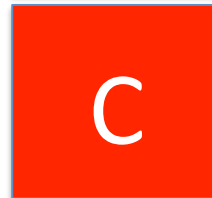
- Blue= Hydrogen



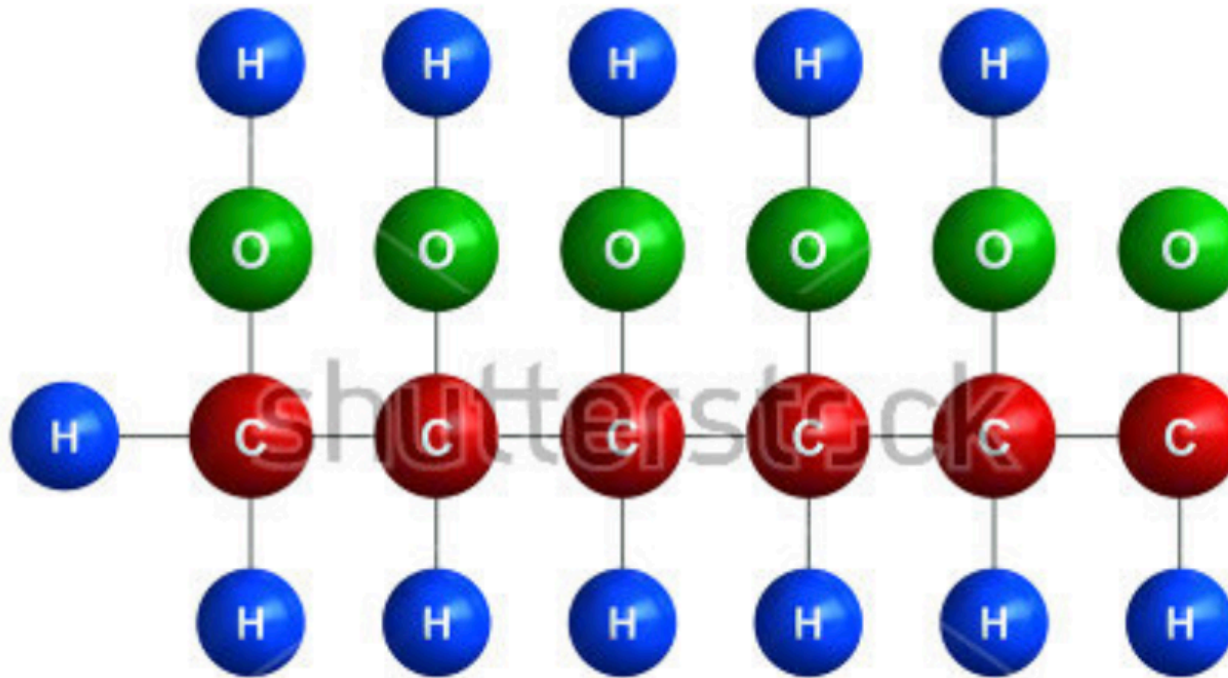
- Green= Oxygen



- Red= Carbon



Build a glucose molecule

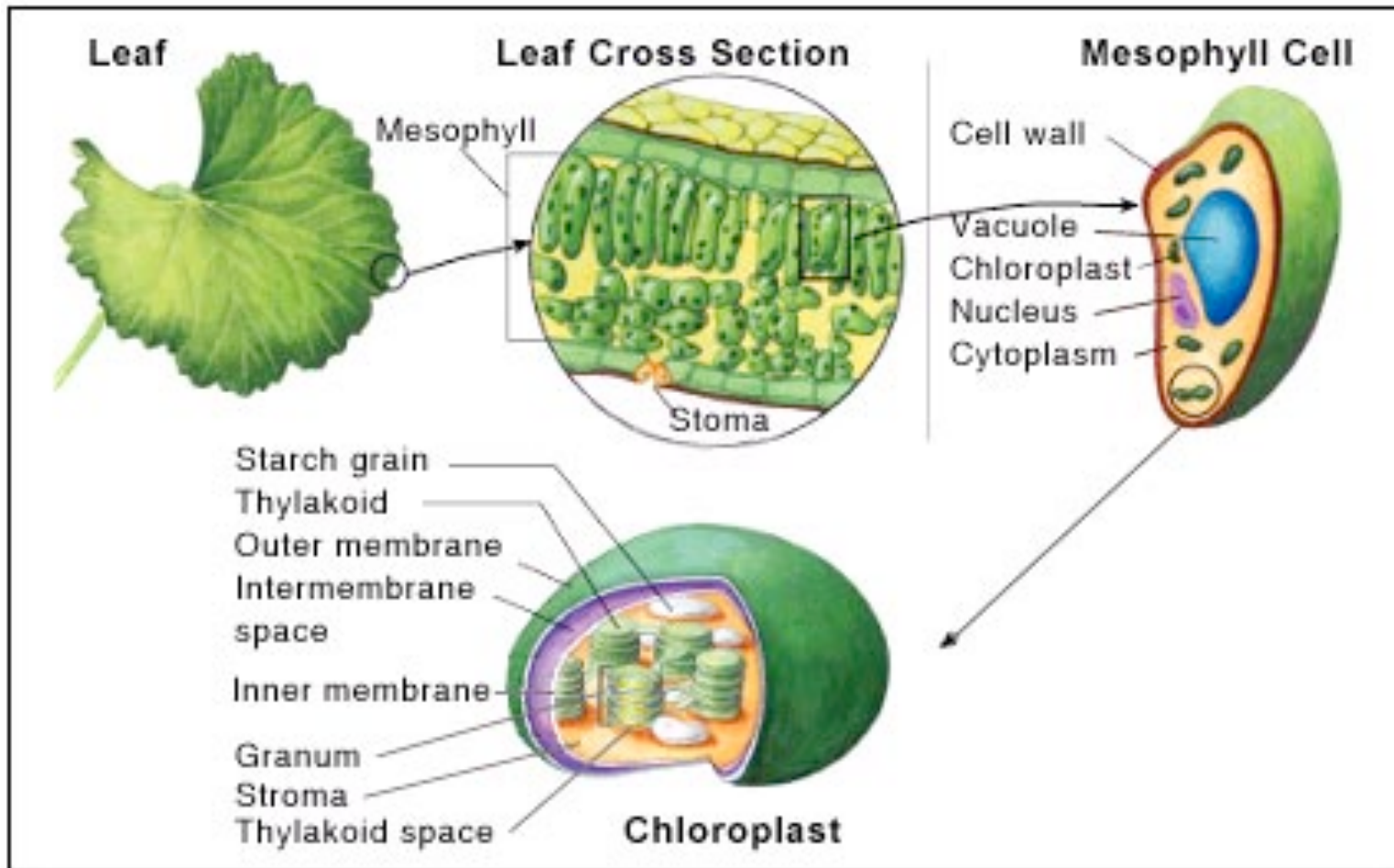


Glucose $C_6H_{12}O_6$



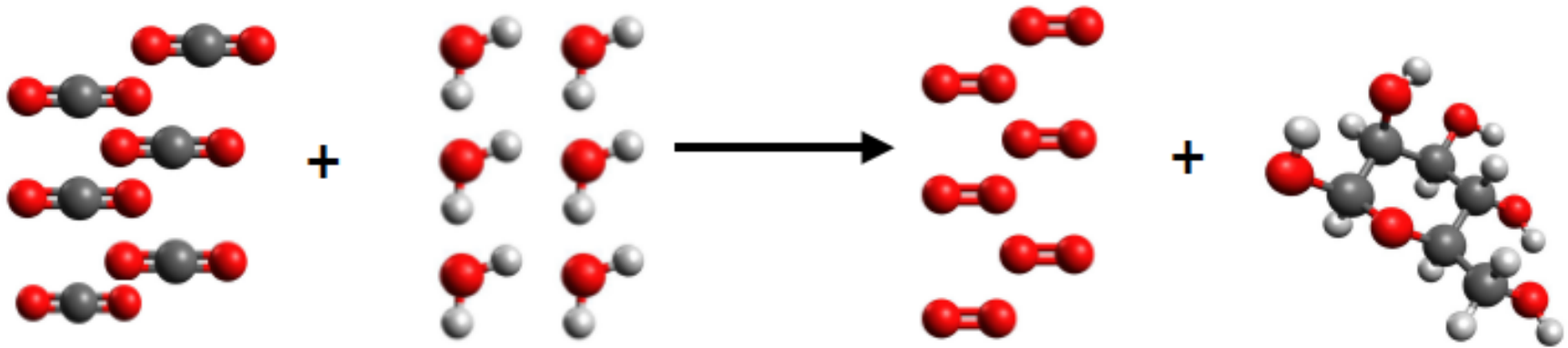
Photosynthesis—Energy

- Where is the energy conversion?



Plants Photosynthesis

- Chemical Rxn to Make Food: Atoms rearrange to make new molecules



6 Carbon Dioxide

+ 6 Water

6 Oxygen

+

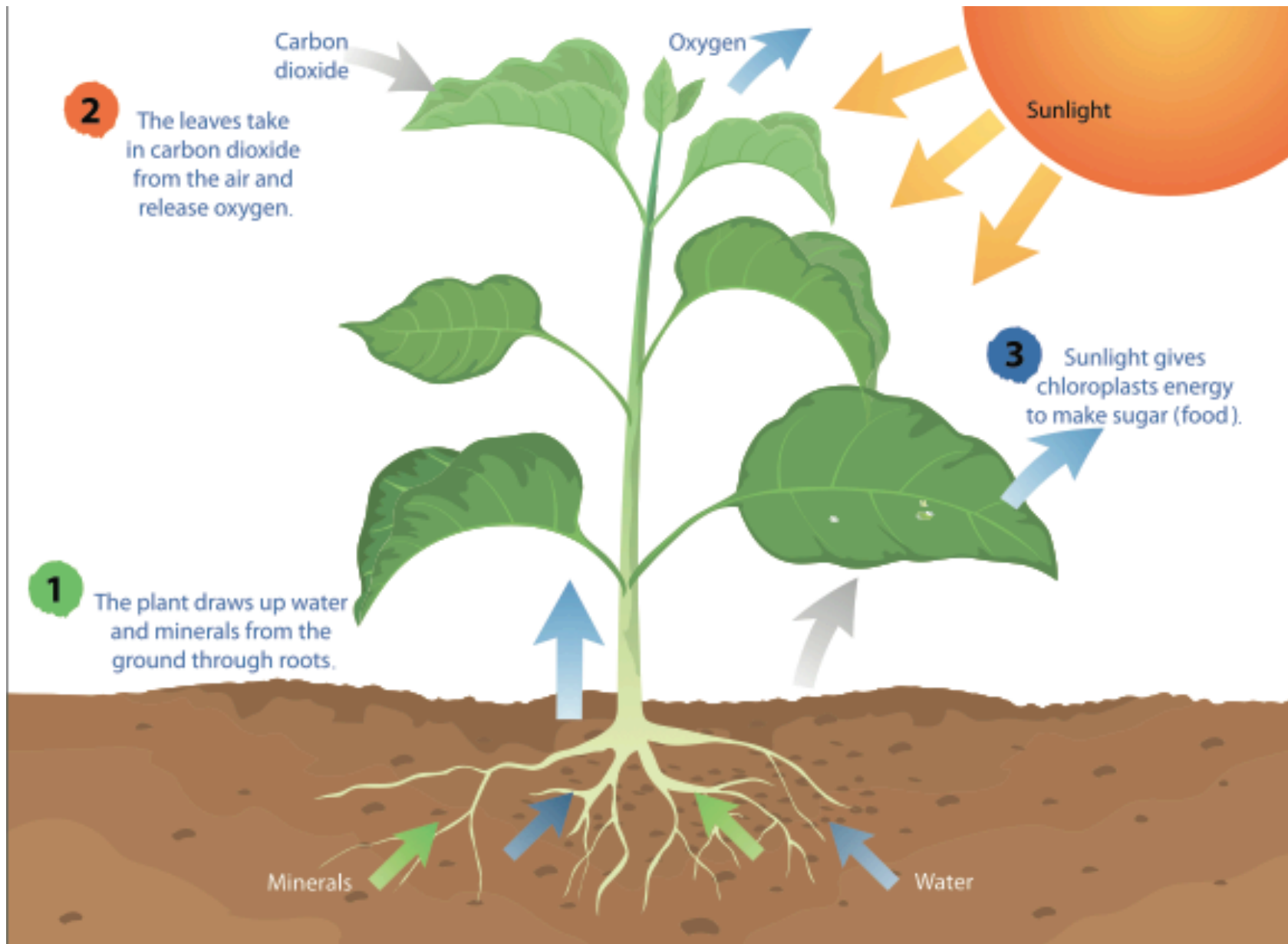
1 Glucose

6 CO₂

6H₂O

6 O₂

1 C₆H₁₂O₆

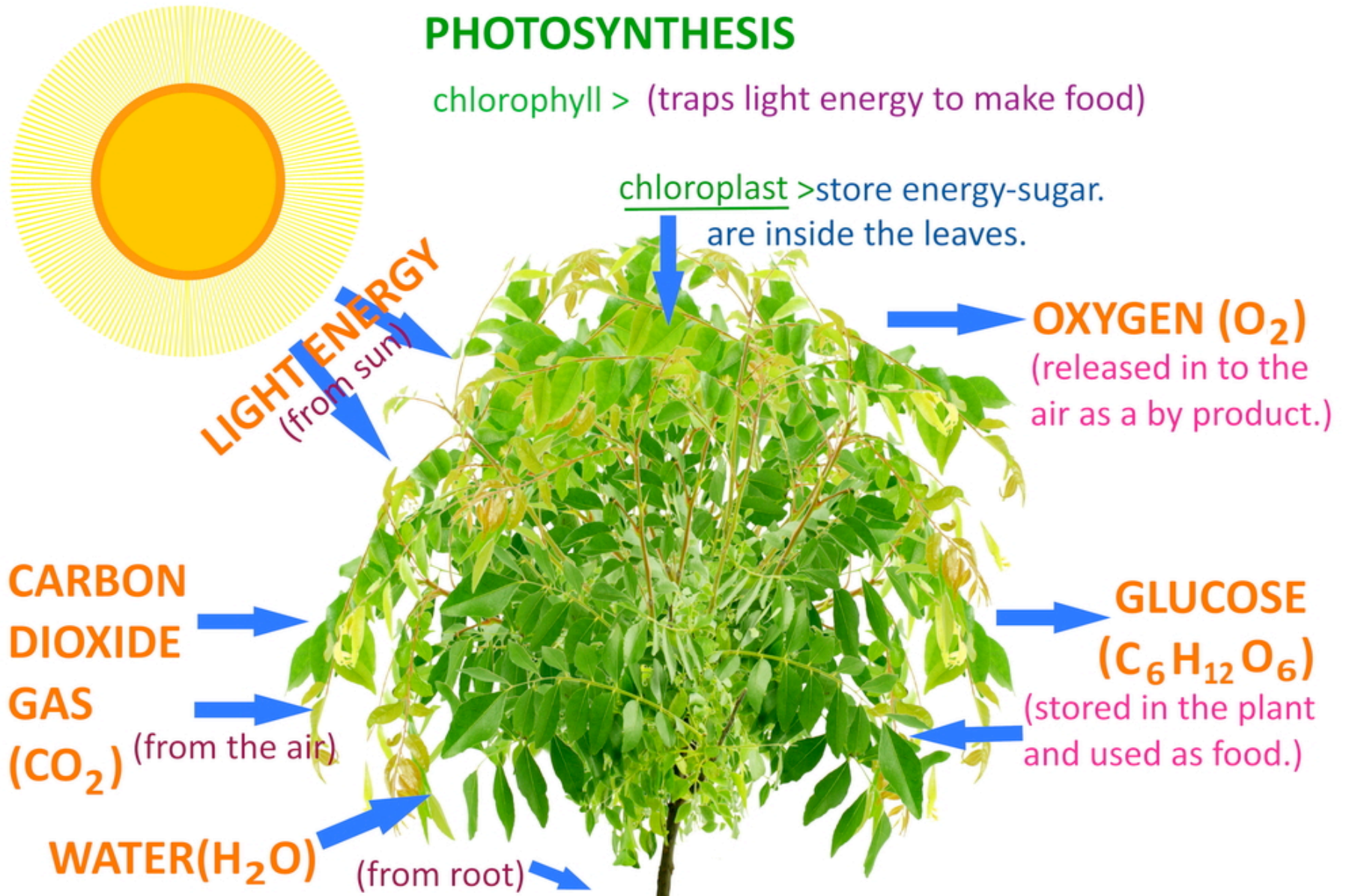


<https://ssec.si.edu/stemvisions-blog/what-photosynthesis> CREDIT: mapichai/Shutterstock.com

PHOTOSYNTHESIS

chlorophyll > (traps light energy to make food)

chloroplast > store energy-sugar.
are inside the leaves.



Video Overview

- https://www.ck12.org/biology/photosynthesis-summary/lesson/Photosynthesis-Summary-BIO/?referrer=concept_details