Photosynthesis

By Jun-Jie, Matthew, Cameron, and Adam

Vocabulary

Stroma- the matrix of the chloroplast

Thylakoids- a flatten sac or vesicle lined with a pigmented membrane

Granum- the stacks of the thylakoid embedded in the stroma

Chlorophyll- a green pigment that is responsible for absorbing light

Chloroplast- a plastid where photosynthesis occurs

Equations

$$CO_2 + H_2O \Rightarrow C_6H_{12}O_6 + O_2$$

(carbon dioxide) (glucose)

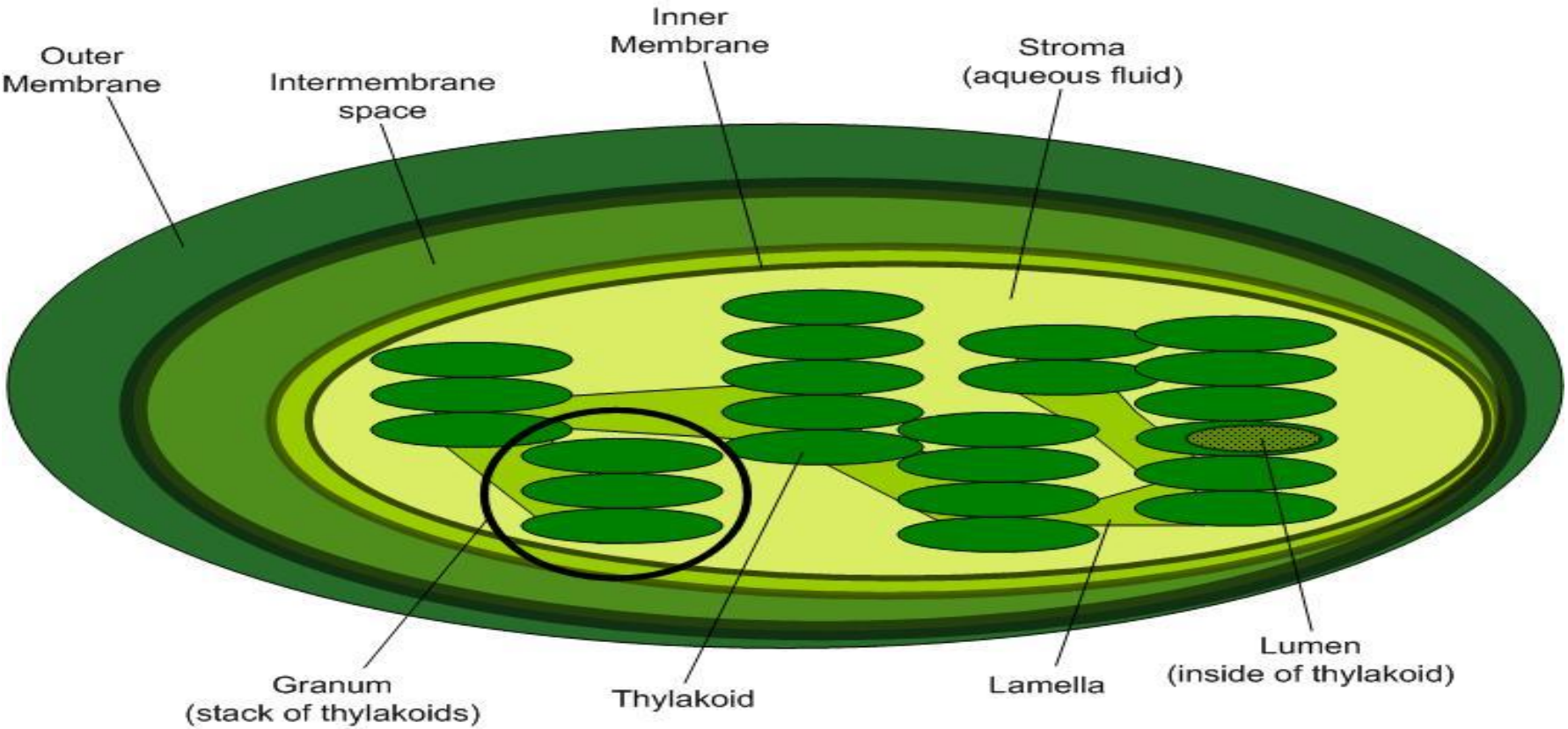
What are we learning?

We will be teaching the class mostly on the energy transfer and the process of photosynthesis.

Fun-ction

The primary function of photosynthesis is converting the energy from the sun into chemical energy to make food. All of the plants and animals depend on the sugar carbohydrates produced by plants.

Energy Transfer

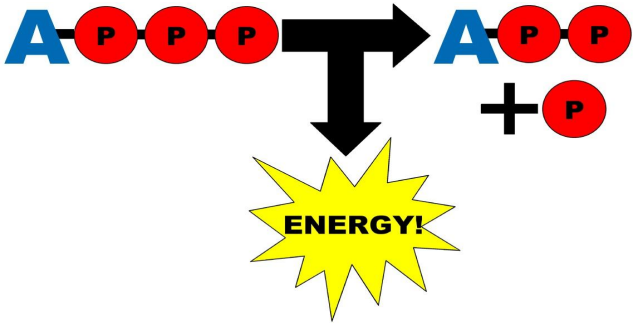


The Energy Transfer In General...

+

=

16	8
O	
Oxygen	
16.00	(6)

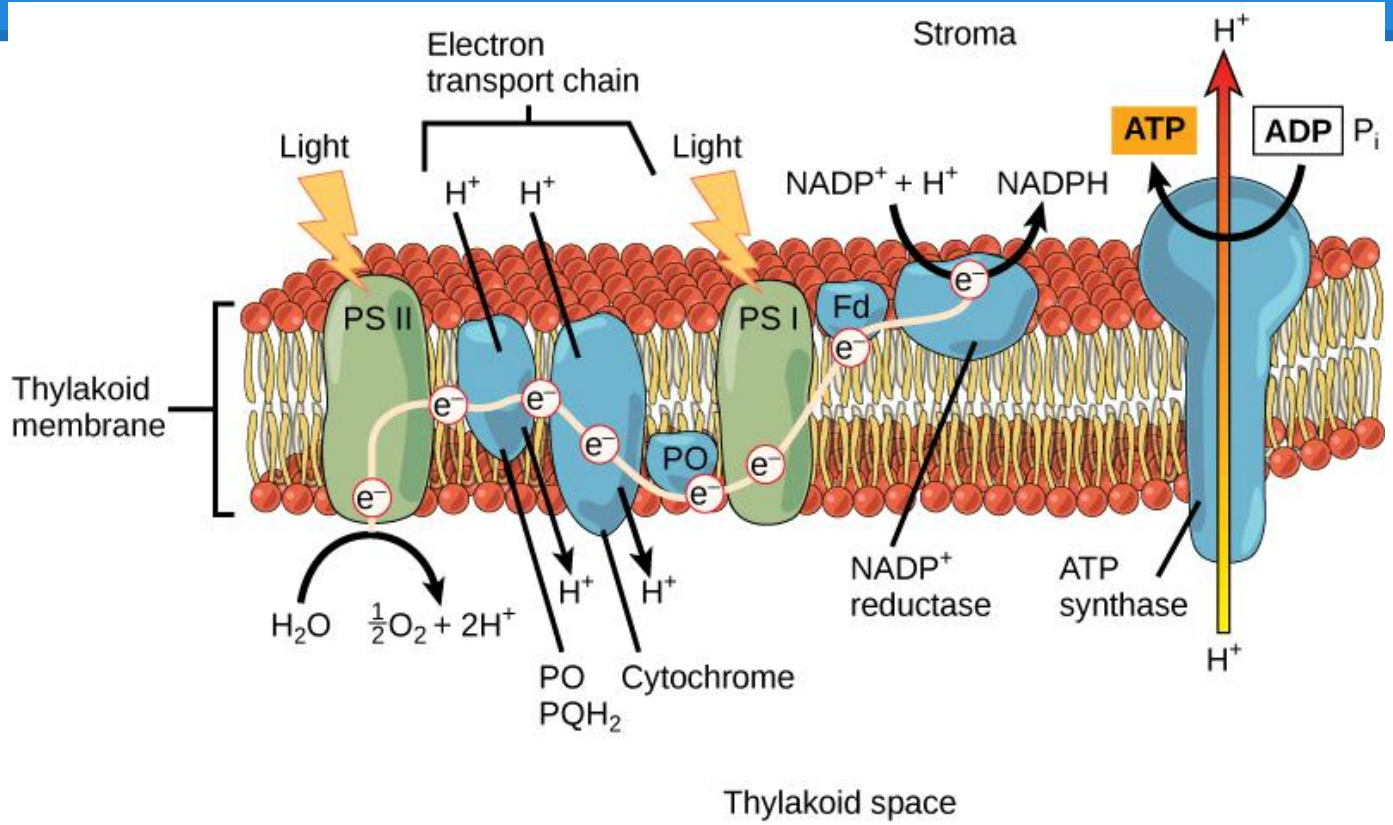


+

CO_2

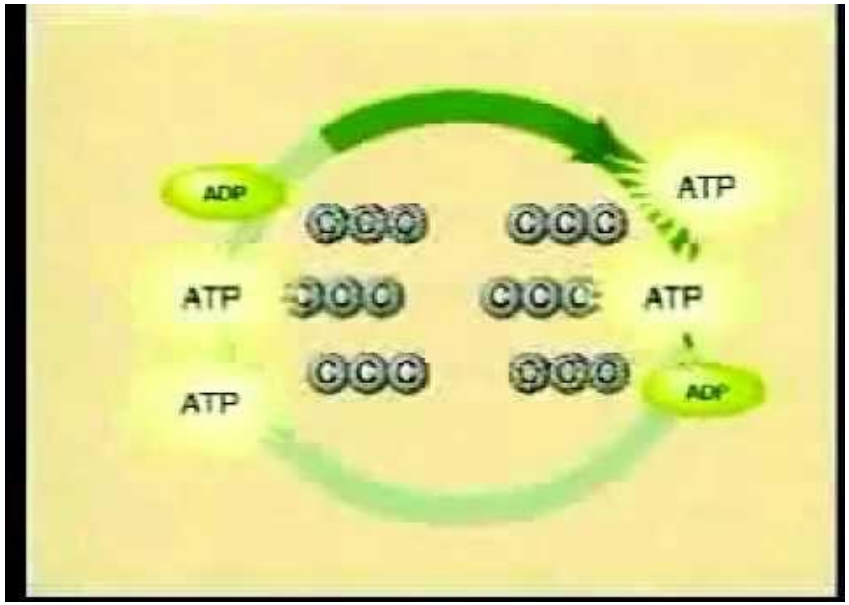
=

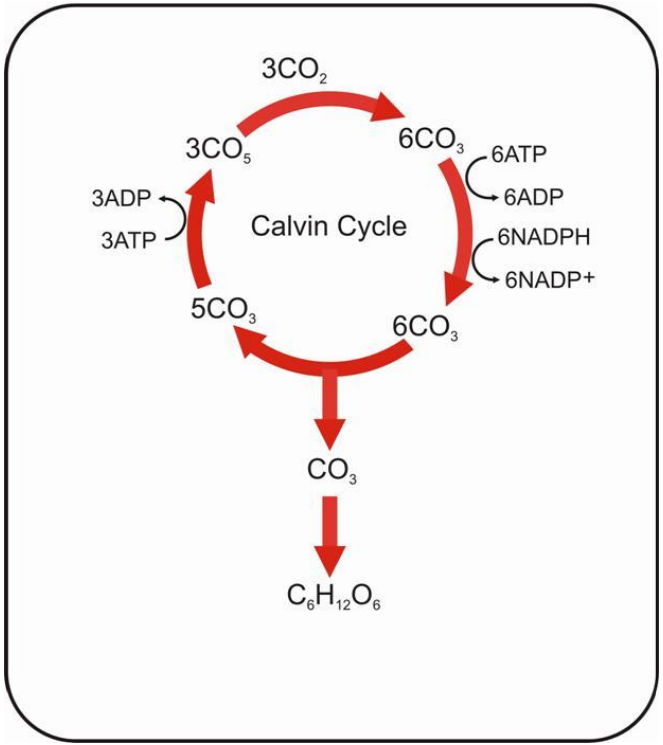
Continues


Electron transport chain
Stroma
Light
Light
H^+
H^+
H^+
ATP
ADP
P_i
$NADP^+ + H^+$
NADPH
PS II
PS I
Fd
Thylakoid membrane
e⁻
PO
H_2O
$\frac{1}{2}O_2 + 2H^+$
H^+
H^+
$NADP^+$ reductase
ATP synthase
PO
PQH_2
Cytochrome
Thylakoid space

Calvin Cycle

Video:



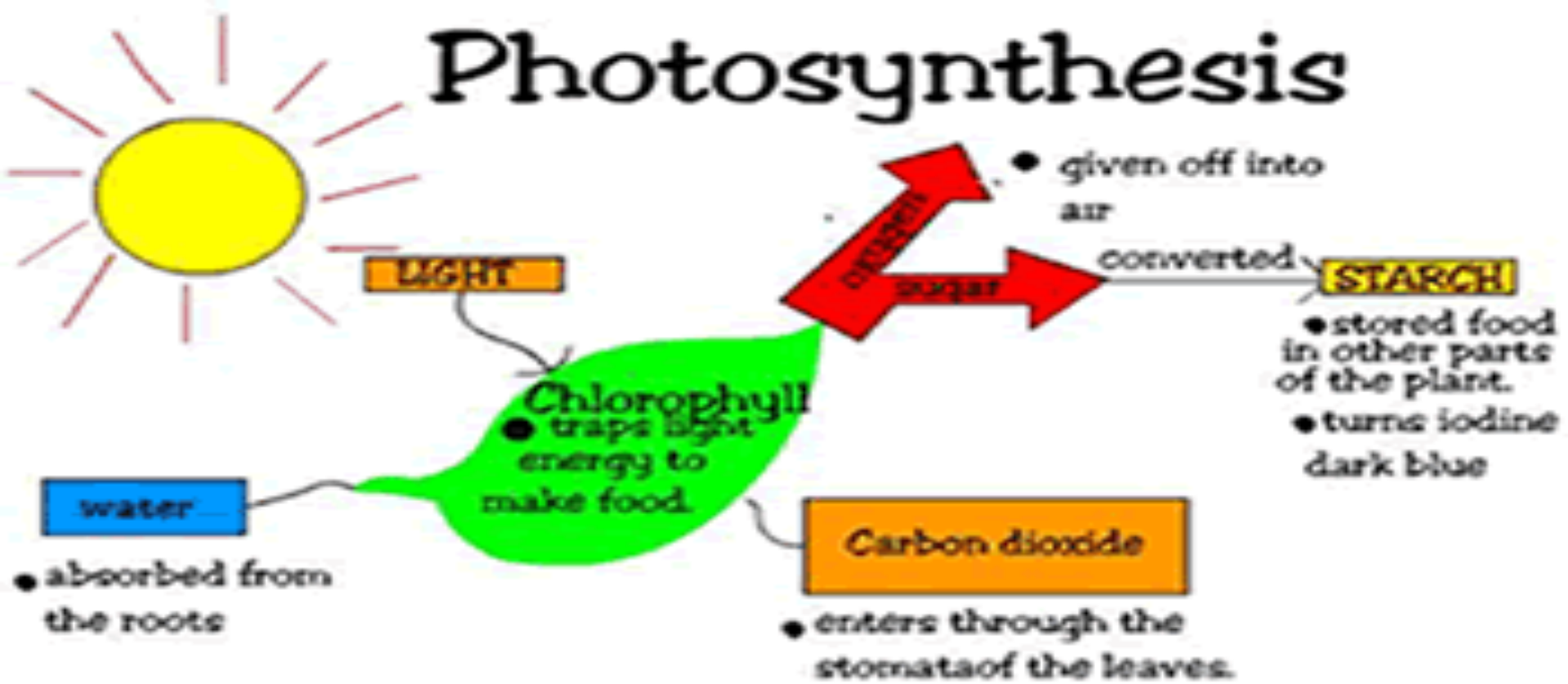


Organelle Structure

Photosynthesis requires chloroplast to turn light energy into sugar.

Chloroplast are exclusive to plant and algae cells.

Diagram


Photosynthesis
LIGHT
oxygen
sugar
given off into air
converted
STARCH
stored food in other parts of the plant.
turns iodine dark blue
Chlorophyll
traps light energy to make food
water
absorbed from the roots
Carbon dioxide
enters through the stomataof the leaves.

Thank You

by Junjie Zou, Cameron Samodai, Adam Cavalier, Matt Lotkowski