## Photosynthesis

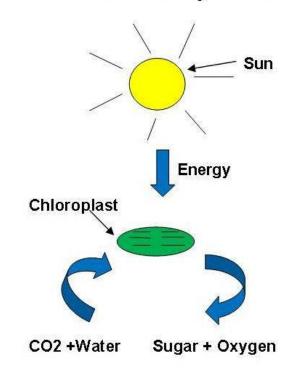
By Makhi Richburg, Miranda Abazoski, and Chloe Epstein

#### Process and Function

- Photosynthesis converts light energy from sun into chemical energy to make carbohydrates like sugar.
- To make sugar, plants requires sunlight, CO2, and H2O.

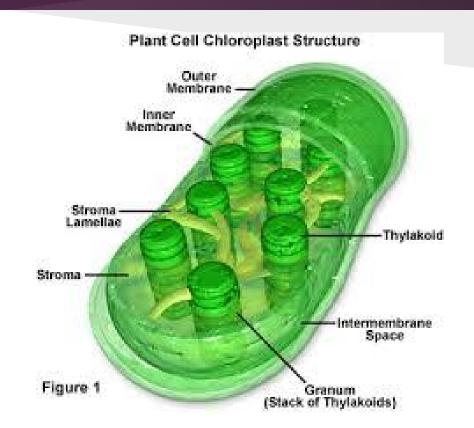
• Sunlight makes contact with H2O. The reaction is oxygen splits from the H2O and releases from the plant.

#### What is Photosynthesis?



# Organelle Structure- chloroplast

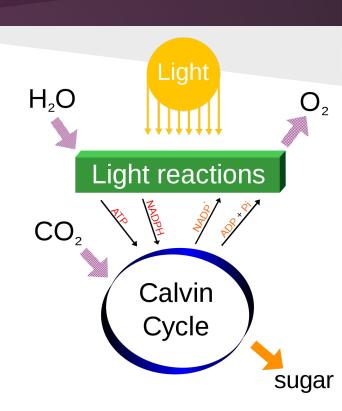
- Conducts photosynthesis- produces food for the cell
- chlorophyll pigment captures energy from the sunlight
- Stores the energy into the molecules ATP and NADPH



### Energy Transfer

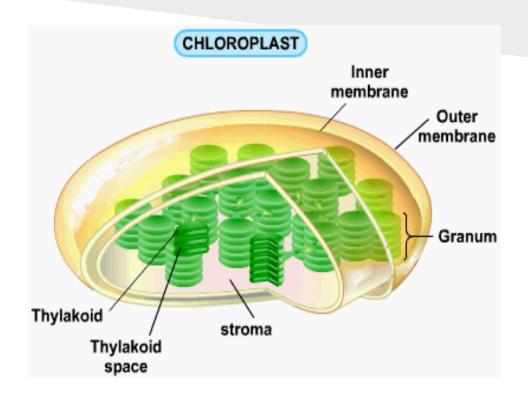
#### Stage 1 of Photosynthesis

- Light energy is used as ATP and NADPH
- Electrons pass through an electron transport chain
- Pigment molecules take energy
- Stage 2 of photosynthesis
- Organic compounds are made using carbon dioxide
- Calvin Cycle happens
- Sugar is produced



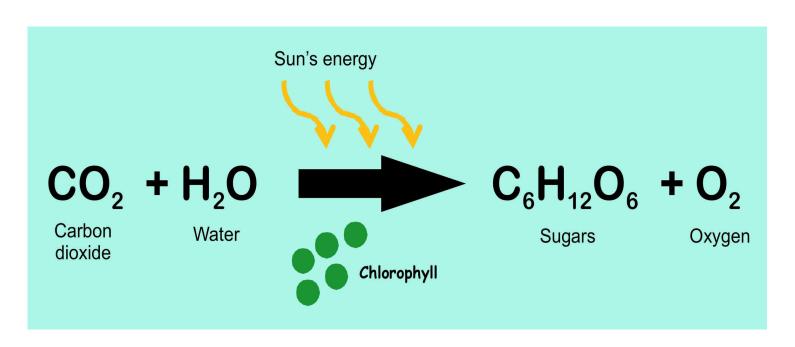
### Vocabulary

- Inner Membrane
- Outer Membrane
- Granum
- Stroma
- Thylakoid Space
- Thylakoid



### Equation

$$C_6O_2 + H_2O \rightarrow C_6H_{12}O_2 + 6O_2$$



### Diagram

- Water enters roots of Chlorophyll
- Energy/ heat comes in
- Carbon dioxide enters
- oxygen comes out
- Glucose ( sugar) is produced

