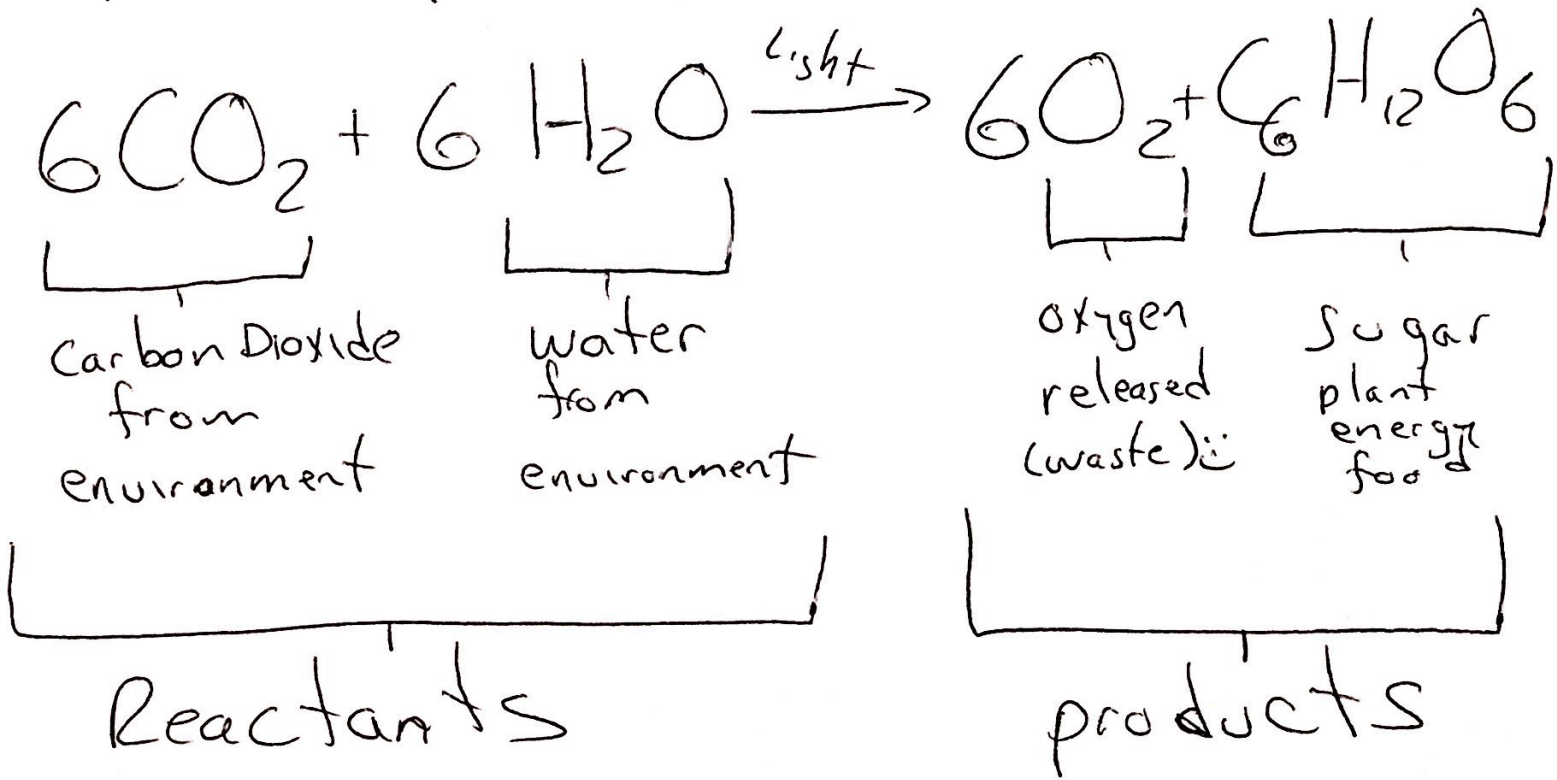


Photosynthesis Formula



Photosynthesis Reactants

- Carbon dioxide
- water

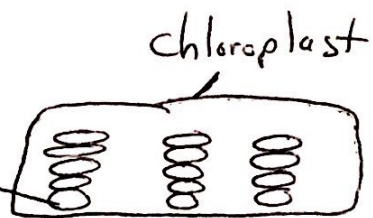
Photosynthesis products

- oxygen
- sugar

Said: "Six Carbon dioxide plus 6 water in the presence of light yields 6 oxygen and sugar"

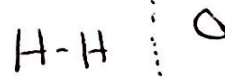
Light Dependent Reaction

• Takes place in chloroplast - thylakoid



• Light helps cut water H_2O

- H is kept



- O is released thru stomata

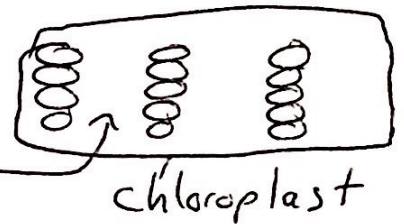
• ATP is produced

NADPH is produced

- both passed on to "Dark Reaction"
"Calvin Cycle"
Light Independent
Reaction

Light Independent Reaction - "Dark Reaction" "Calvin Cycle"

• Takes place in chloroplast - stroma



• ATP from Light Dependent Reaction - provides energy

• NADPH reduces energy

• Carbon dioxides are fixed together $CO_2 - CO_2 - CO_2$

• Combined with Hydrogen (H) from Light Dependent

• Forms a glucose molecule

• ADP, NADP, P go back to start of cycle