# Photosynthesis Notes

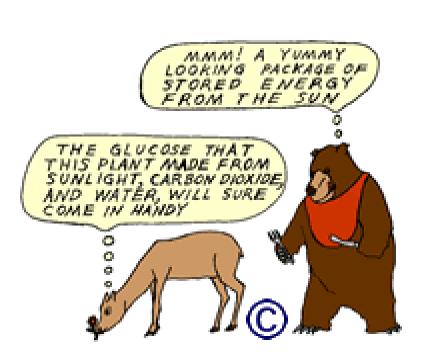


Most energy on the planet comes from the sun.



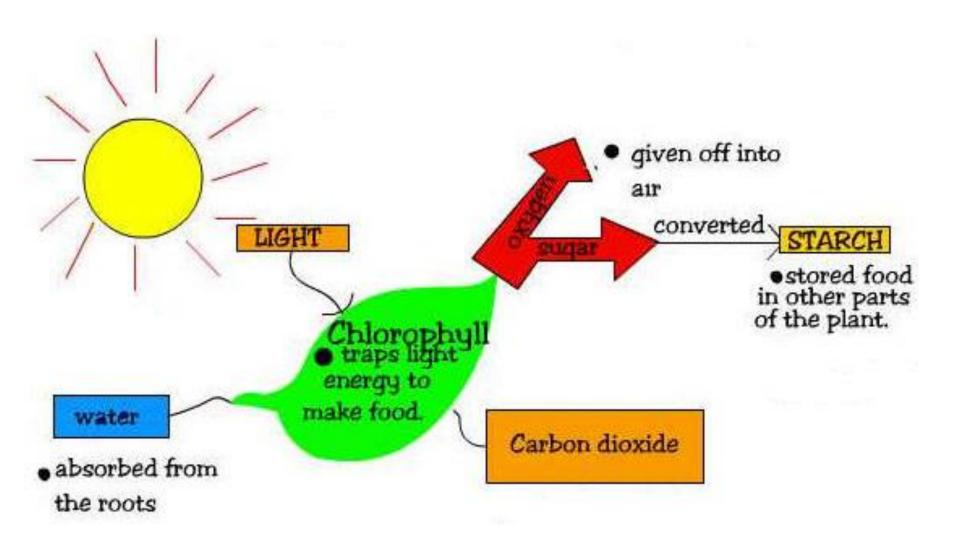
- Living things called autotrophs (or producers) trap energy so they can use it
- Most autotrophs use photosynthesis to trap the sun's energy
  - -"photo" = light
  - -"synthesis" = to form a compound out of simpler compounds

### Photosynthesis is the source of energy for most living things



- Autotrophs change light energy into usable chemical energy
- Heterotrophs (or consumers) get their energy by eating autotrophs or other heterotrophs that ate autotrophs

http://www.ftexploring.com/photosyn/photosynth.html



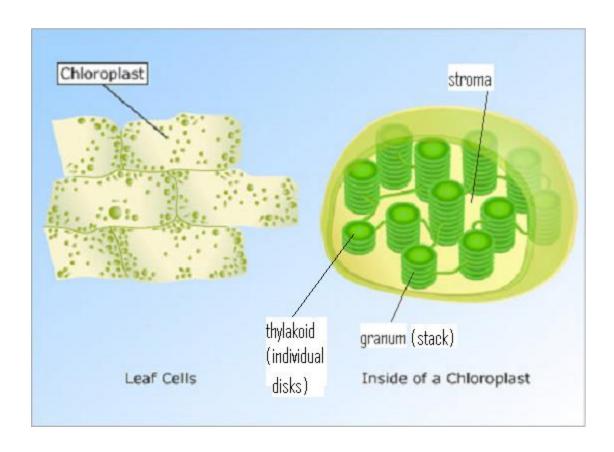
Carbon Dioxide + Water → Sugar (Glucose) + Oxygen

$$6\text{CO}_2 + 6\text{H}_2\text{O} \xrightarrow{\text{light}} \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$$

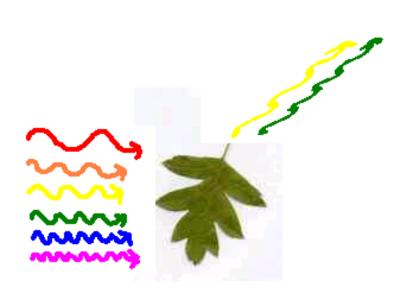
chlorophyll

Reactants  $\rightarrow$  Products

#### Photosynthesis happens in the chloroplasts



## Chloroplasts contain many pigments, but mostly chlorophyll



- Chlorophyll absorbs mostly red, orange, blue, and violet light waves
- Chlorophyll reflects green and yellow light waves
- This makes
   chlorophyll look
   green (or yellowish
   green)

#### Summary:

