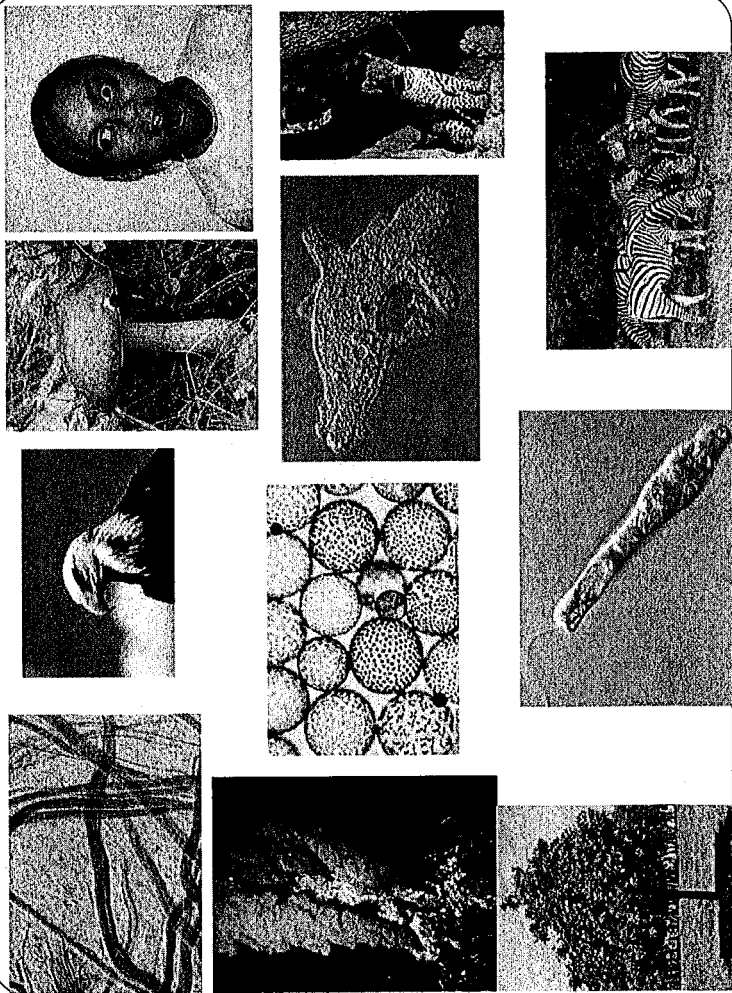


Chapter 6

Photosynthesis



Autotrophs vs. Heterotrophs

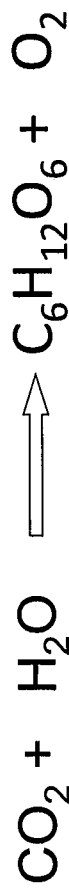
use energy from sunlight

or

inorganic compounds

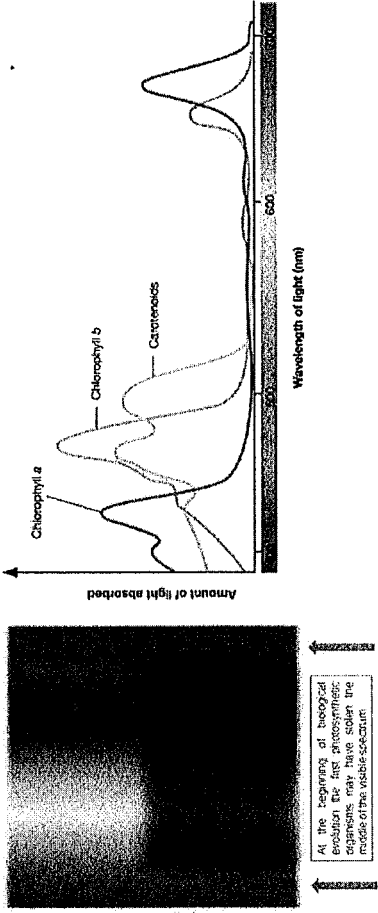
to make

use energy from



How do plants get the stuff they need for photosynthesis?

- Capturing Light Energy – chlorophyll and other pigment molecules



At the beginning of biological evolution, organisms may have soaked the middle of the visible spectrum. Chlorophyll evolved later to exploit the wavelengths at the edges of the spectrum.

Pigments

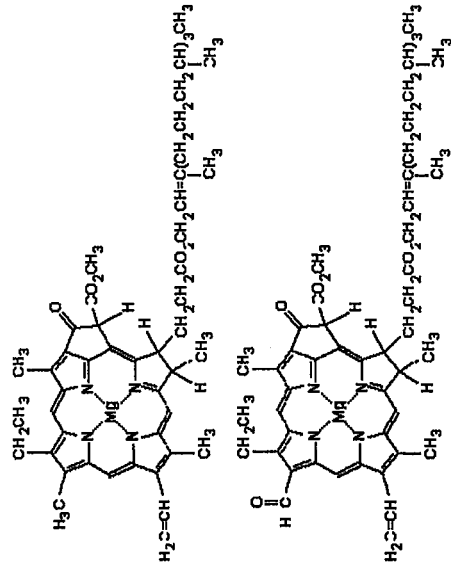
Pigments are found in the Thylakoid membranes

- Chlorophyll A -
- Chlorophyll B -
- Carotenoids -

(helps Chlor. A capture more wavelengths)

(yellow orange brown)

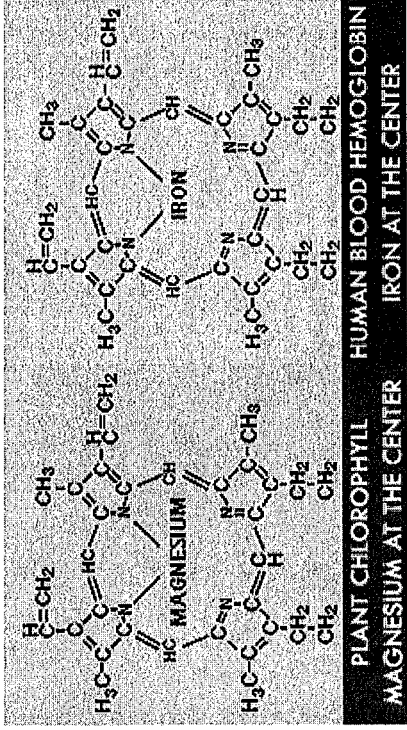
Pigments



Other Pigment



Pigments



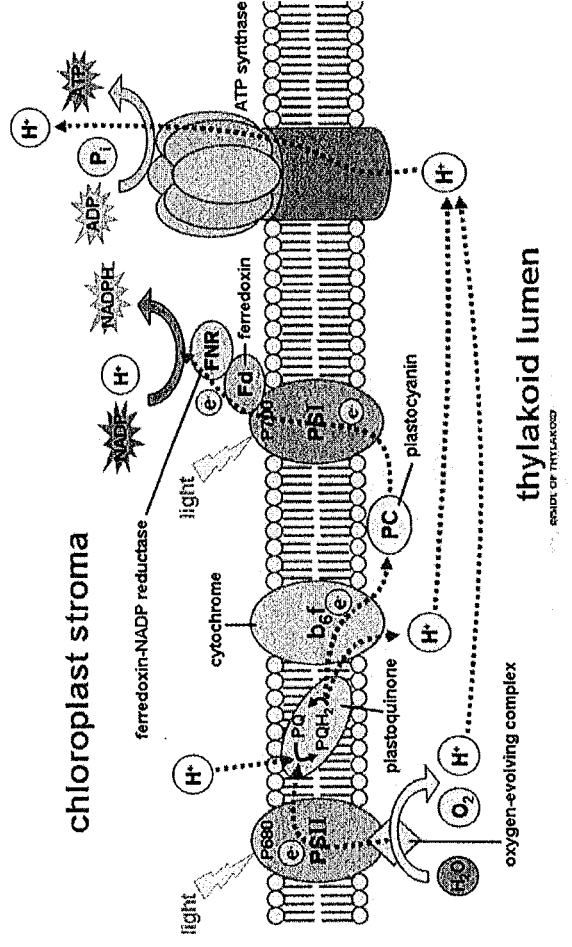
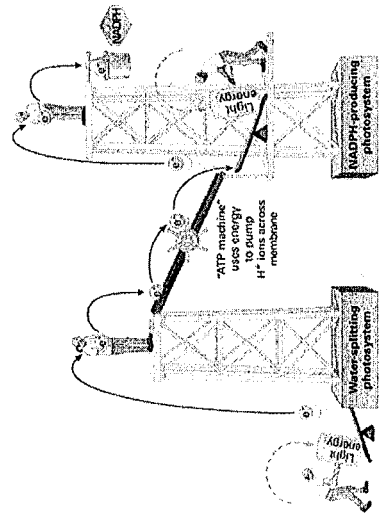
Overview of Photosynthesis

- Two parts

- Light Reactions — _____ is absorbed and converted to chemical energy stored in _____ and _____
- Calvin Cycle — _____ formed using _____ and the chemical energy stored in _____ and _____

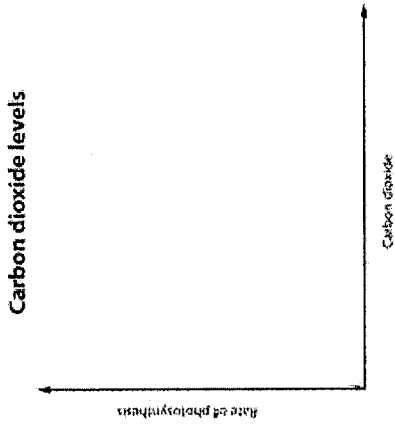
Overview of Photosynthesis

- Light Reactions - Pigment molecules and protein (Photosystem) use _____ and _____ to make _____ and _____, producing _____ (waste)



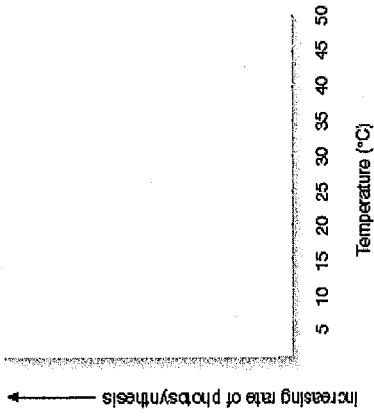
Rate Effecting Factors

- Light Intensity
- Carbon Dioxide Levels
- Temperature



Rate Effecting Factors

- Light Intensity
- Carbon Dioxide Levels
- Temperature



Photosynthesis

