8-2 Photosynthesis: An Overview





Slide 1 of 28

8-2 Photosynthesis: An Overview

Photosynthesis is the process in which green plants use the energy of sunlight to convert water and carbon dioxide into high-energy carbohydrates and oxygen.



The Photosynthesis Equation

The equation for photosynthesis is:

$$6CO_2 + 6H_2O \xrightarrow{Light} C_6H_{12}O_6 + 6O_2$$

carbon dioxide + water — Light sugars + oxygen



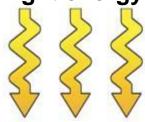


8-2 Photosynthesis: An Overview The Photosynthesis



Equation

Light energy



 H_2O

Light-Dependent Reactions (thylakoids)

> **ATP NADPH**

Calvin Cycle (stroma)



Slide 4 of 28 Plants gather the sun's energy with light-absorbing molecules called **pigments**.

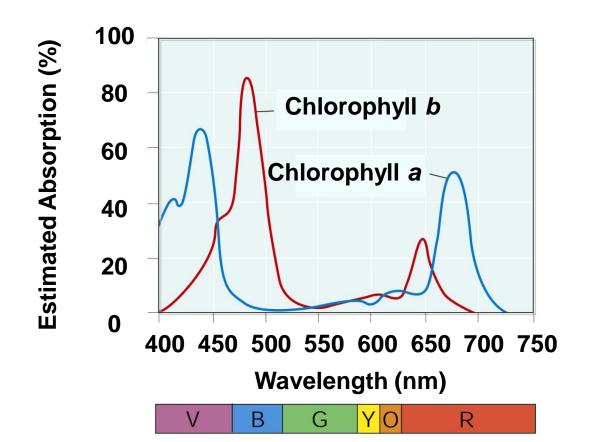
The main pigment in plants is chlorophyll.

There are two main types of chlorophyll:

- chlorophyll a
- chlorophyll b



Chlorophyll does not absorb light well in the green region of the spectrum. Green light is reflected by leaves, which is why plants look green.





Slide 6 of 28

END OF SECTION