

## CHAPTER 10 PHOTOSYNTHESIS MACHINERY

- $6\text{CO}_2 + 6\text{H}_2\text{O} = \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2$
- **AUTOTROPHS: ORGANISMS THAT CANNOT MAKE THEIR OWN FOOD.**
- **PLASTID/CHLOROPLAST**
- **GRANA/THYLAKOID/LIGHT DEP. RX**
- **STROMA/LIGHT INDEP. RX'S**
- **PLANT PIGMENTS/CHLOROPHYLL**

Figure 10.0 Sunbeams



Figure 10.1 Photoautotrophs



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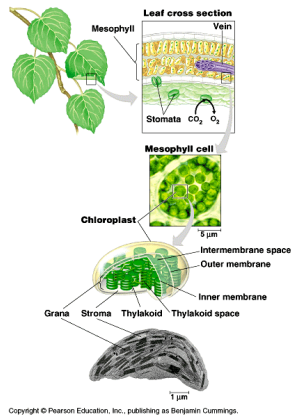
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Figure 10.2 Focusing in on the location of photosynthesis in a plant




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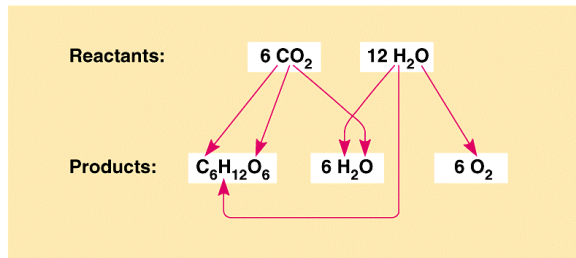
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Figure 10.3 Tracking atoms through photosynthesis




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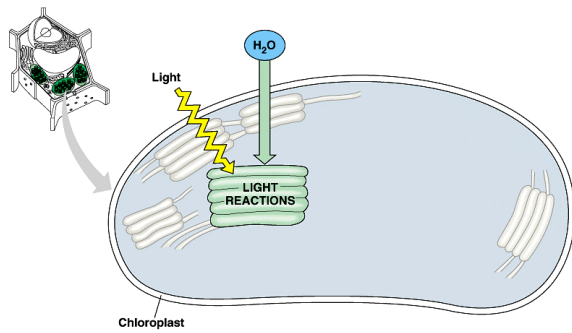
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Figure 10.4 An overview of photosynthesis: cooperation of the light reactions and the Calvin cycle (Layer 1)




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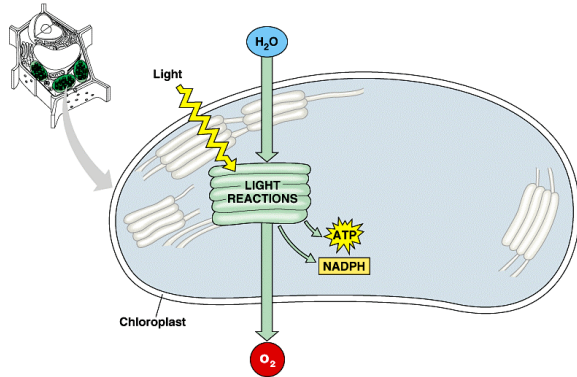
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Figure 10.4 An overview of photosynthesis: cooperation of the light reactions and the Calvin cycle (Layer 2)



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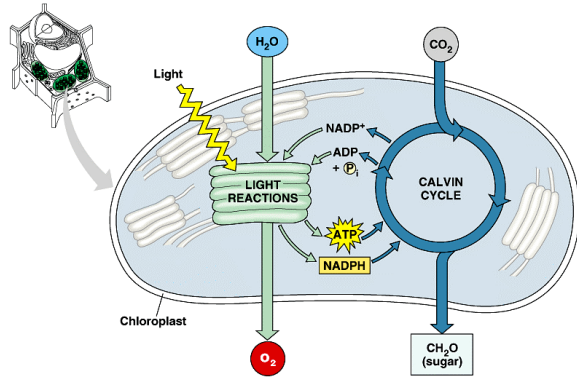
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Figure 10.4 An overview of photosynthesis: cooperation of the light reactions and the Calvin cycle (Layer 3)



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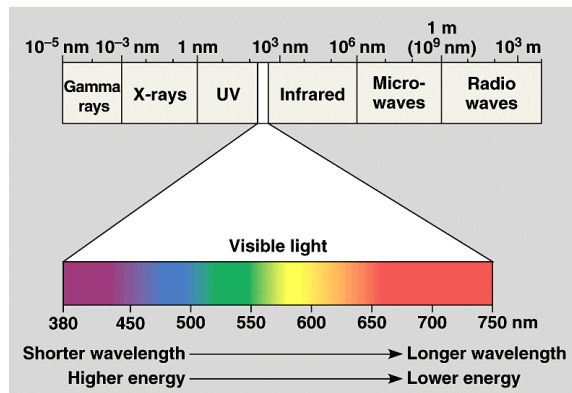
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Figure 10.5 The electromagnetic spectrum



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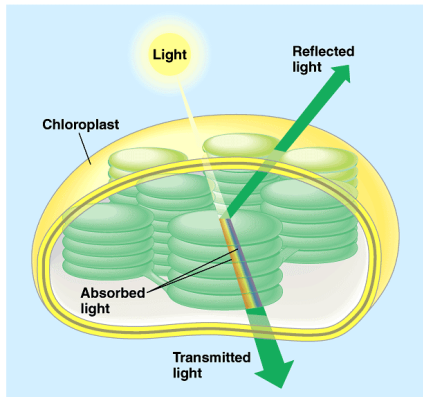
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Figure 10.6 Why leaves are green: interaction of light with chloroplasts



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Figure 10.x1 Melvin Calvin



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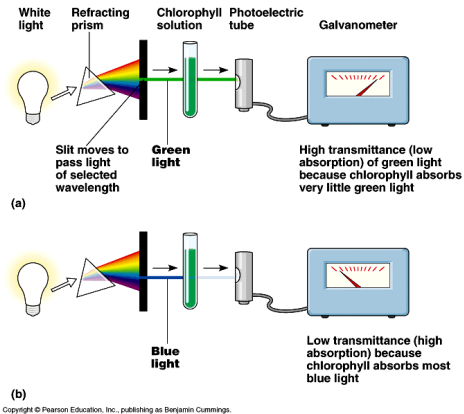
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Figure 10.7 Determining an absorption spectrum



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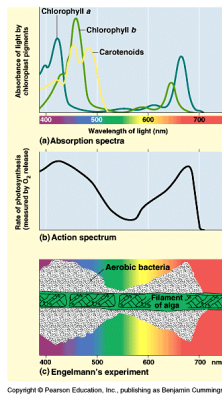
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Figure 10.8 Evidence that chloroplast pigments participate in photosynthesis: absorption and action spectra for photosynthesis in an alga




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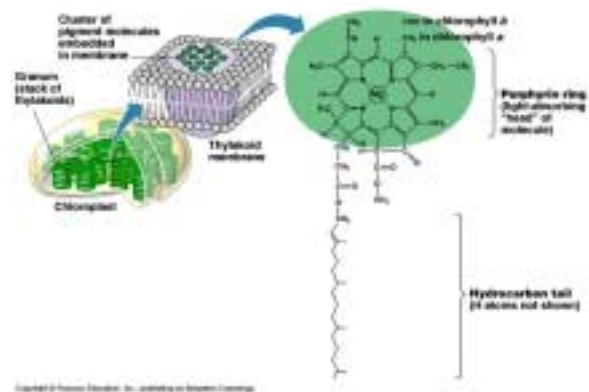
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Figure 10.9 Location and structure of chlorophyll molecules in plants




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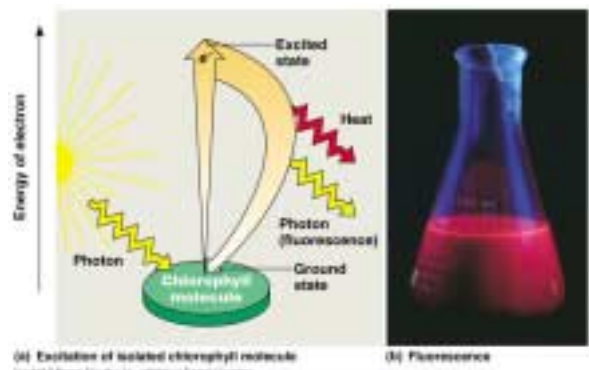
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Figure 10.10 Excitation of isolated chlorophyll by light




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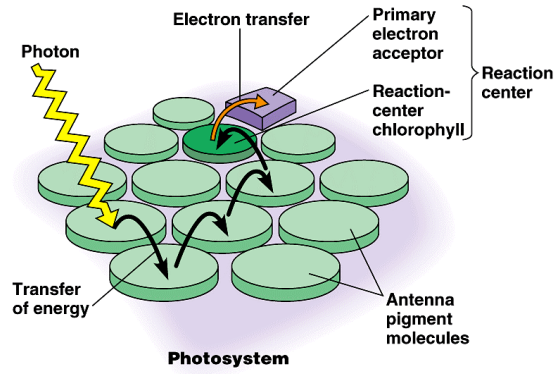
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Figure 10.11 How a photosystem harvests light



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