CHAPTER 10
PHOTOSYNTHESIS
MACHINERY

• $6\text{C}_02 + 6\text{H}_2\text{O} = \text{C}_6\text{H}_12\text{O}_6 + 6\text{O}_2$

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

Figure 10.3  Tracking atoms through photosynthesis.

Figure 10.4  An overview of photosynthesis: cooperation of the light reactions and the Calvin cycle (Layer 1).
Figure 10.6. Why leaves are green: interaction of light with chloroplasts.

Figure 10.6. Melvin Calvin

Figure 10.7. Determining an absorption spectrum.
Figure 10.8 Evidence that chloroplast pigments participate in photosynthesis: absorption and action spectra for photosynthesis in an alga.

Figure 10.9 Location and structure of chlorophyll molecules in plants.

Figure 10.10 Excitation of isolated chlorophyll by light.
Figure 10.11  How a photosystem harvests light