

PLNT 1213 Note outline

Photosynthesis and Respiration

Chapters 6 and 7

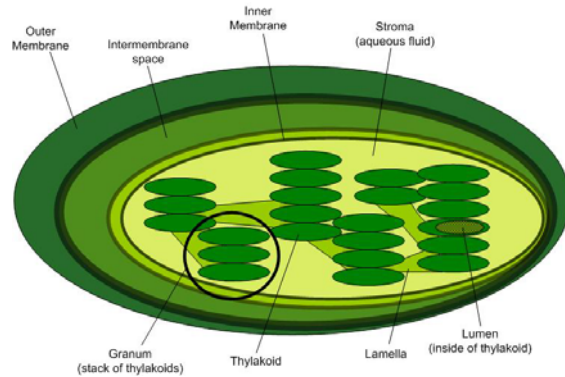
Objectives:

- Describe the process of photosynthesis
- Describe the process of photorespiration
- Describe three types of photosynthetic pathways
- Describe the processes of respiration and fermentation

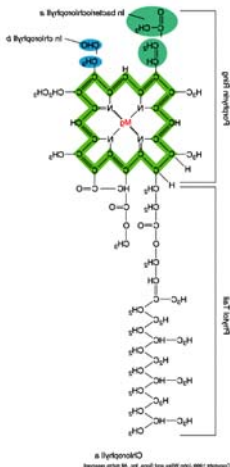
Photosynthesis overview:

The two steps of photosynthesis are:

Photosynthesis occurs in the



Light is trapped by



Light

Wavelength

Photons

Excited molecules

Why are plants green?

Photosynthesis details:

1. The **light reactions** - also called the

Photosystem II:

The electron originally absorbed by photosystem II is passed to photosystem I.

See page 181 – 182 for a good description of why the light reactions are called the Z scheme!

- The ATP and NADPH created in the light reactions are used in the **carbon reactions**, also called the

The carbon reactions can be broken down into three phases:

Phase 1

Phase 2

Phase 3

Photosynthesis also produces a small amount of _____

Photosynthesis summary

	Light dependent reactions	Light independent reactions
Also known as		
Inputs		
Products		
First step		
Location in chloroplast		

Factors affecting photosynthesis

-

2.

3.

4.

Photorespiration

Photosynthetic pathways

C3

C4

CAM

Respiration

1.

2.

3.

Fermentation