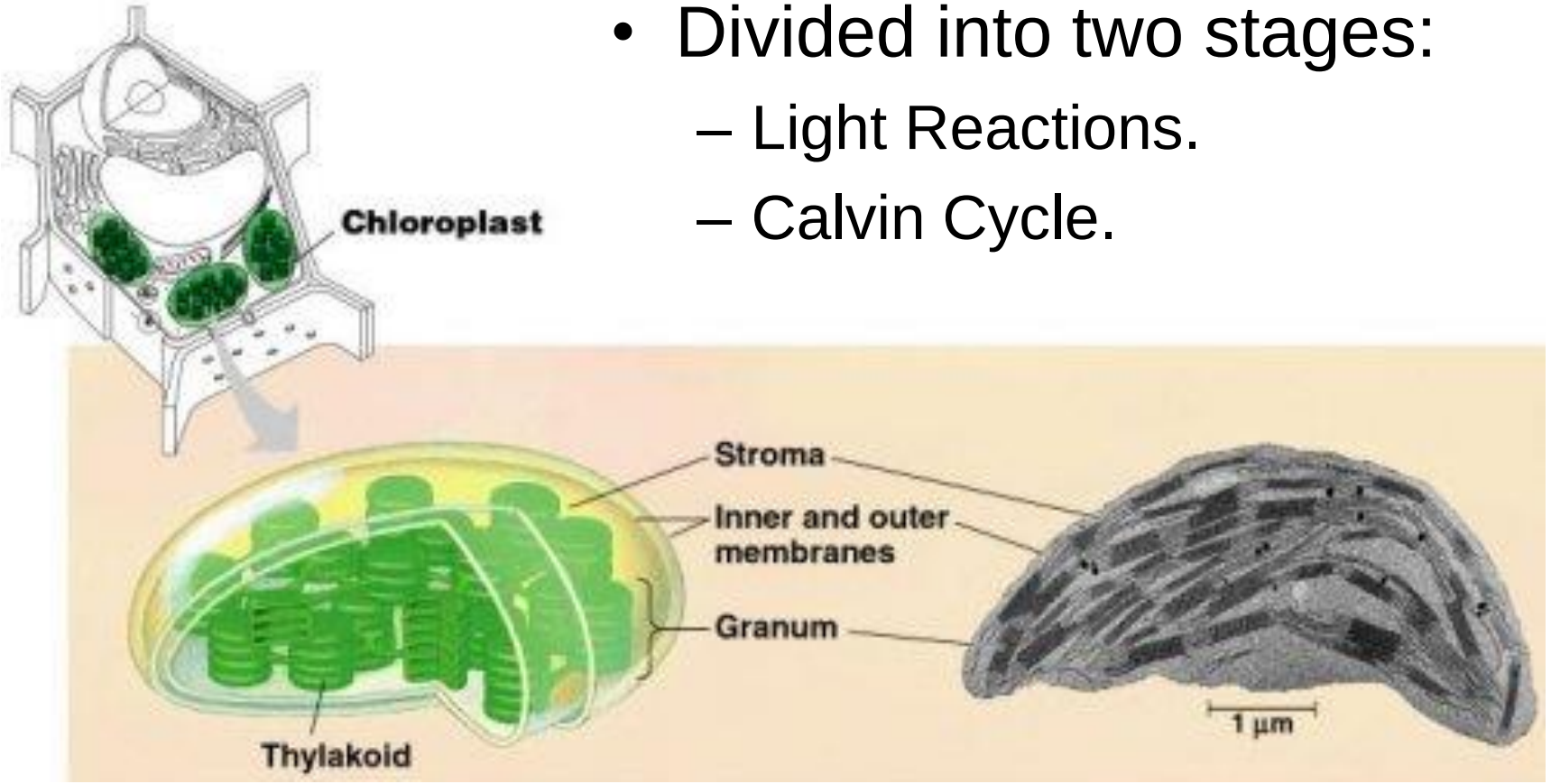
Photosynthesis

Overview

- Occurs in the chloroplast.
- Divided into two stages:
  - Light Reactions.
  - Calvin Cycle.



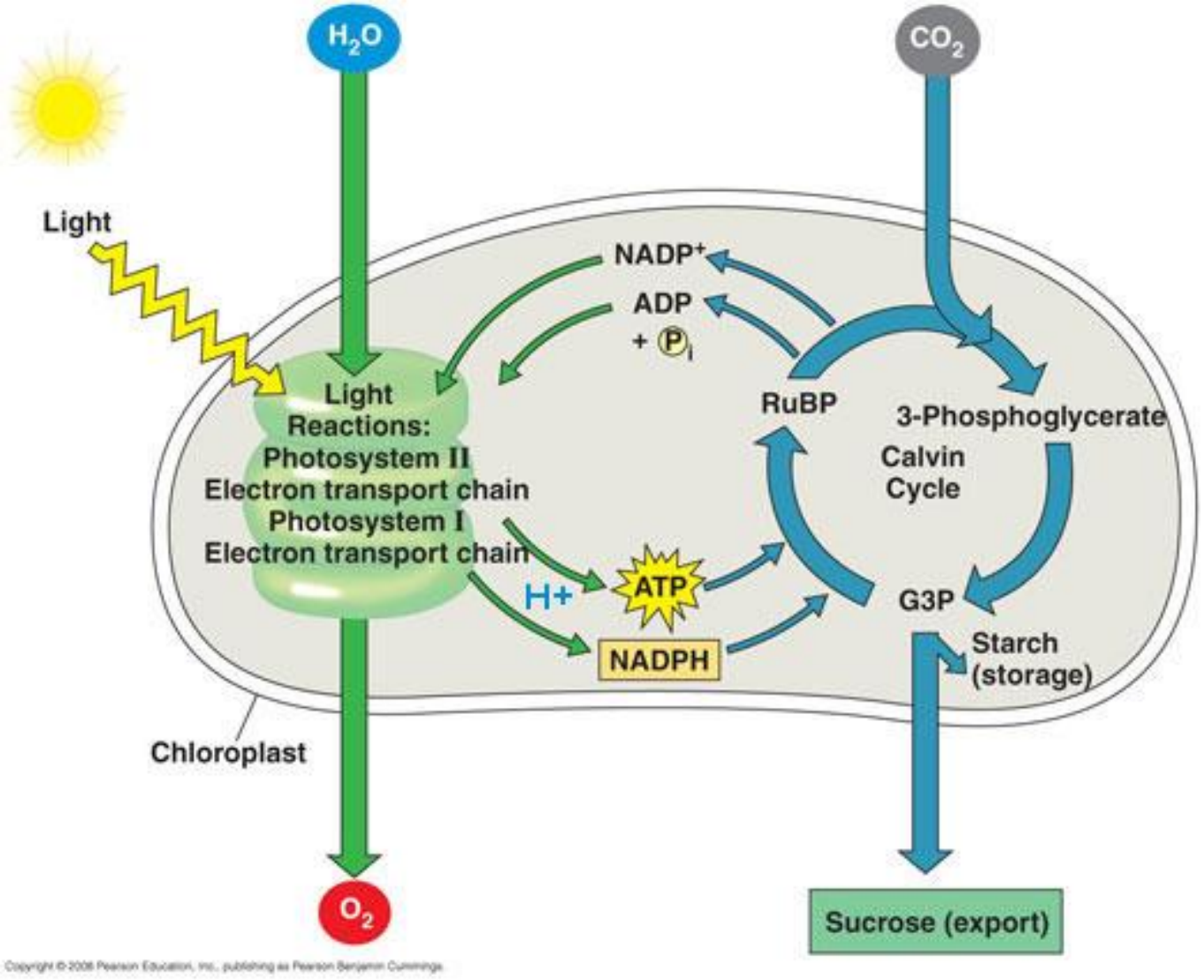
Light Reactions

- Takes place within thylakoid membrane.
- Uses solar energy to:
  - Split water into hydrogen ions, electrons and oxygen.
  - Excite electrons within chlorophyll that sets off a series of reactions that create high energy compounds.

Calvin Cycle

- Takes place within stroma.
- Uses high energy compounds from light reactions to drive the cycle.
- Carbon dioxide combines with intermediate compounds to form glucose.

Photosynthesis



Word & Chemical Equation

Water + Carbon Dioxide → Glucose + Oxygen

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