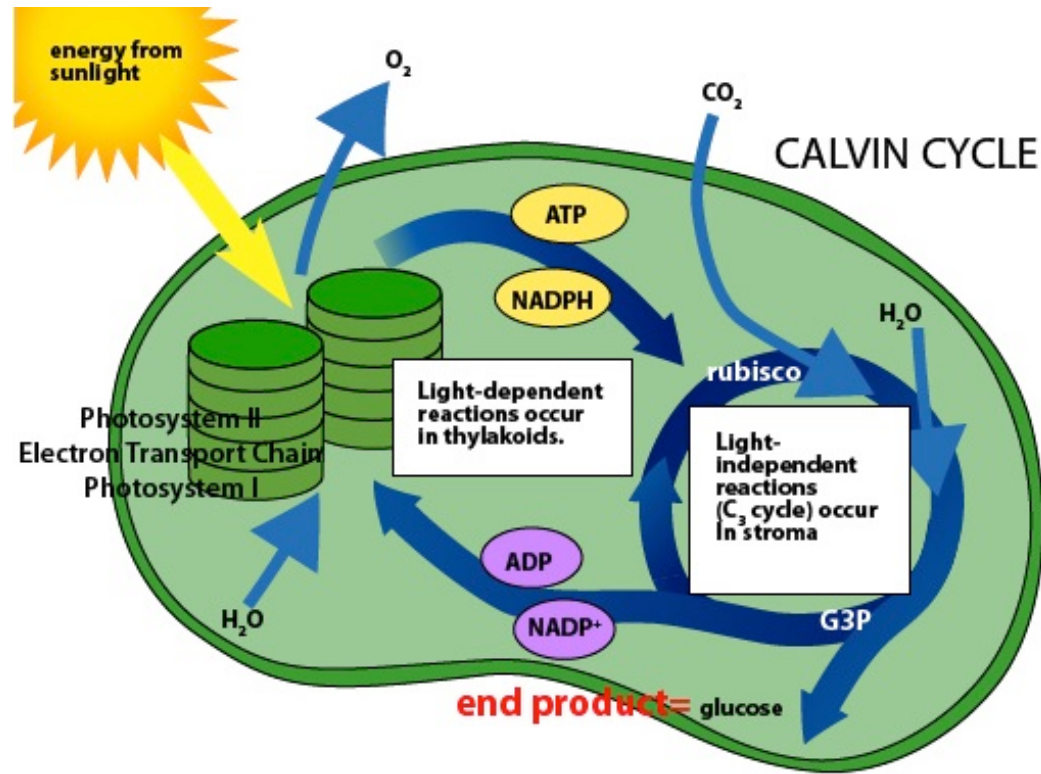




# B.9B Photosynthesis and Cellular Respiration

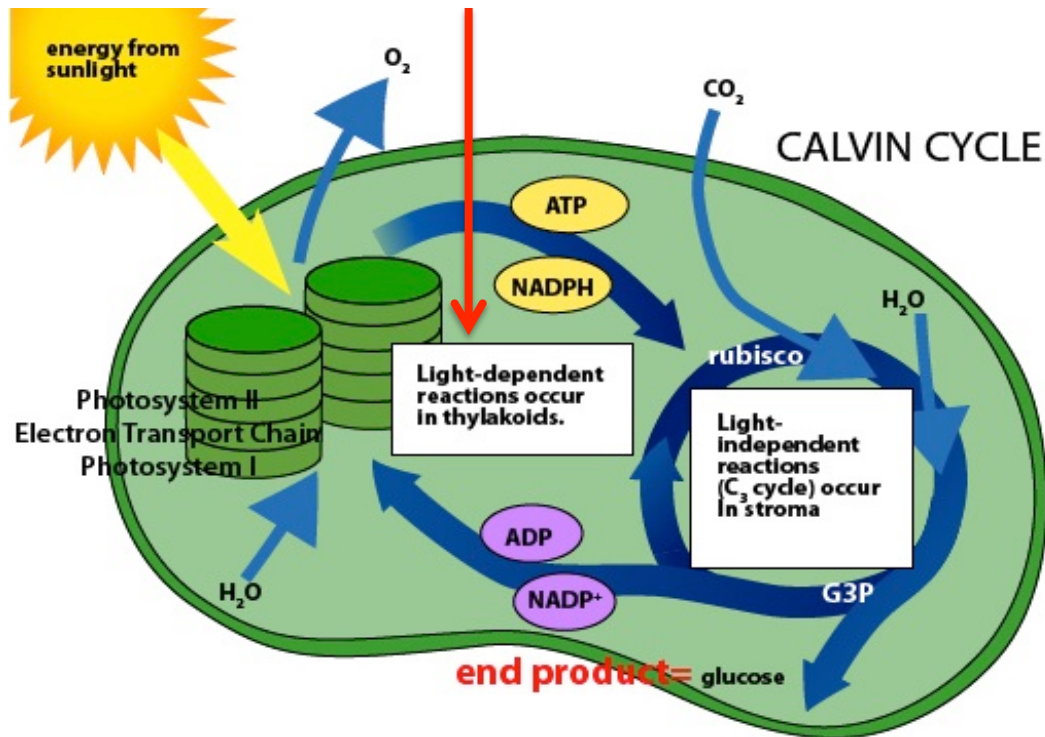
## Picture Vocabulary

# Photosynthesis



The chemical process of converting light energy into chemical energy (glucose); occurs in autotrophic organisms

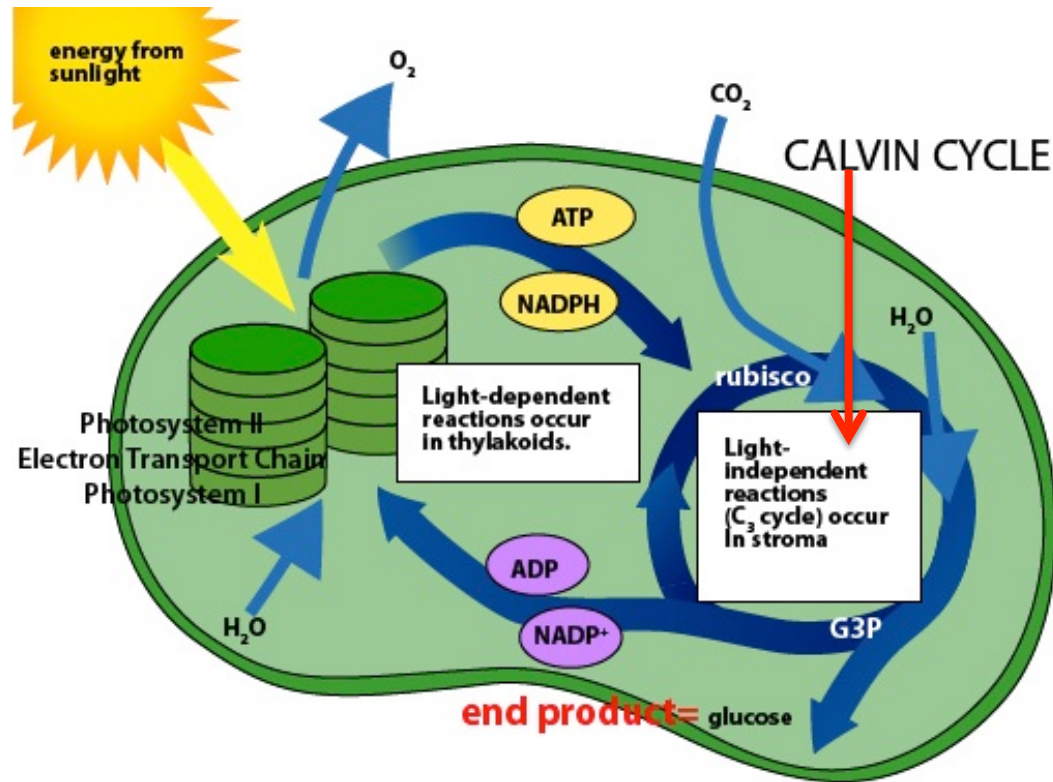
# Light-dependent Reactions



The first reaction in photosynthesis in which photons carrying light energy are absorbed and converted to the chemical energy storage molecule

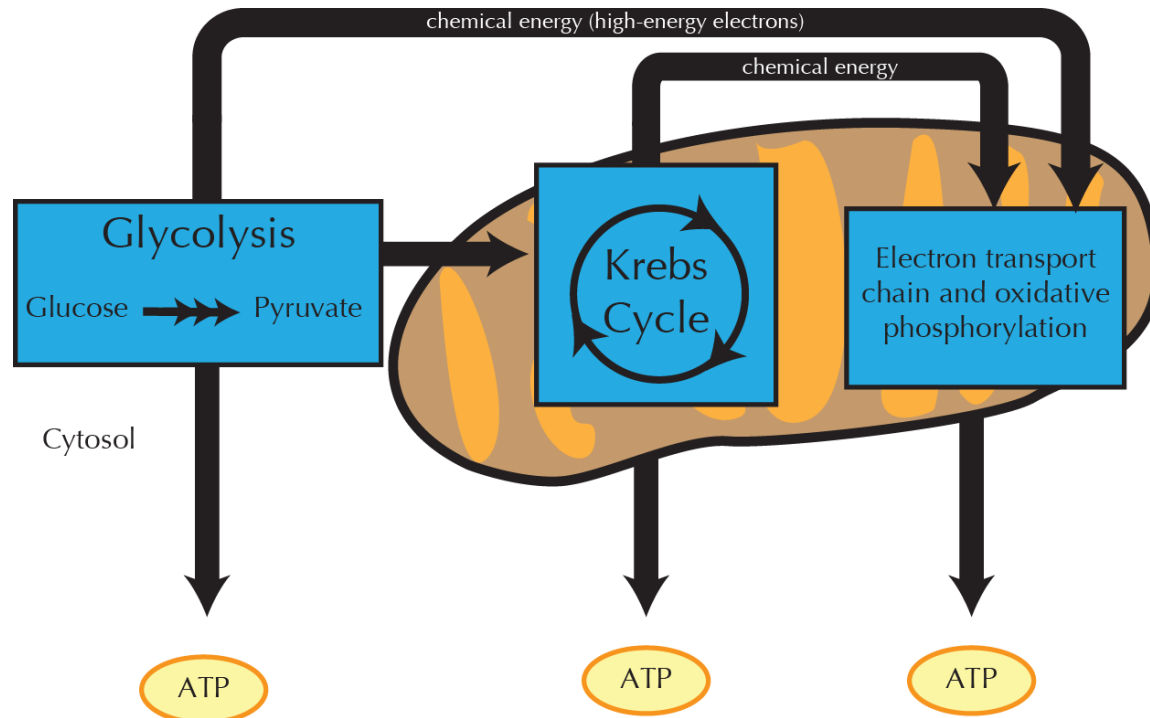
ATP

# Calvin Cycle



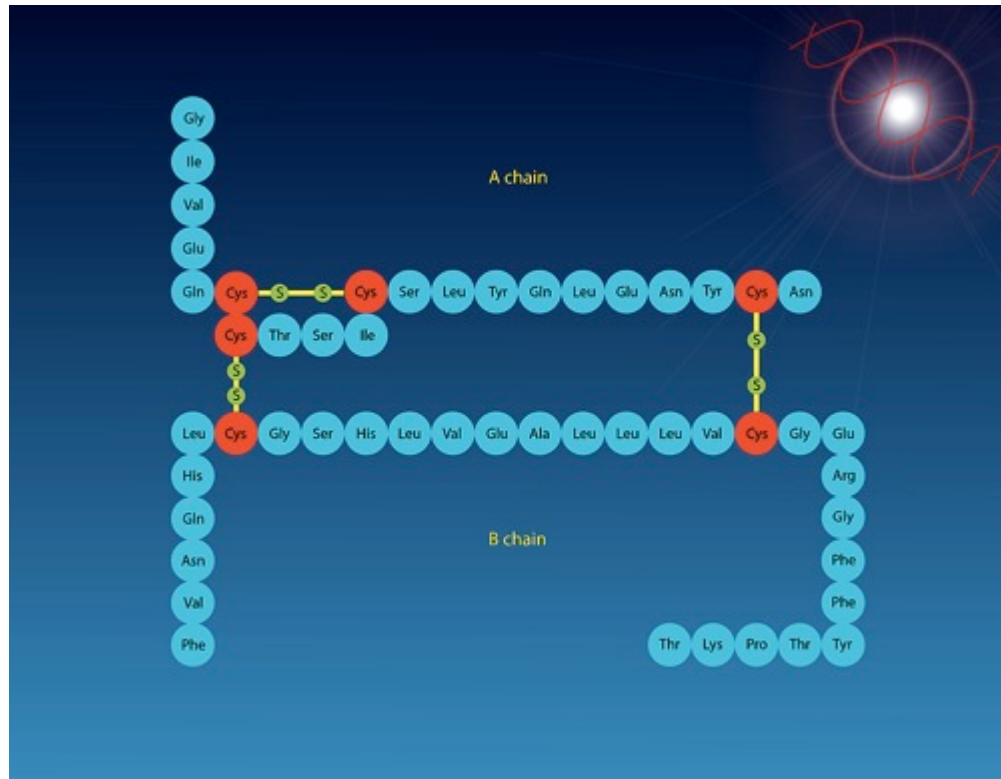
The second reaction in photosynthesis in which carbon from carbon dioxide is used to produce the organic molecule glucose

# Cellular Respiration



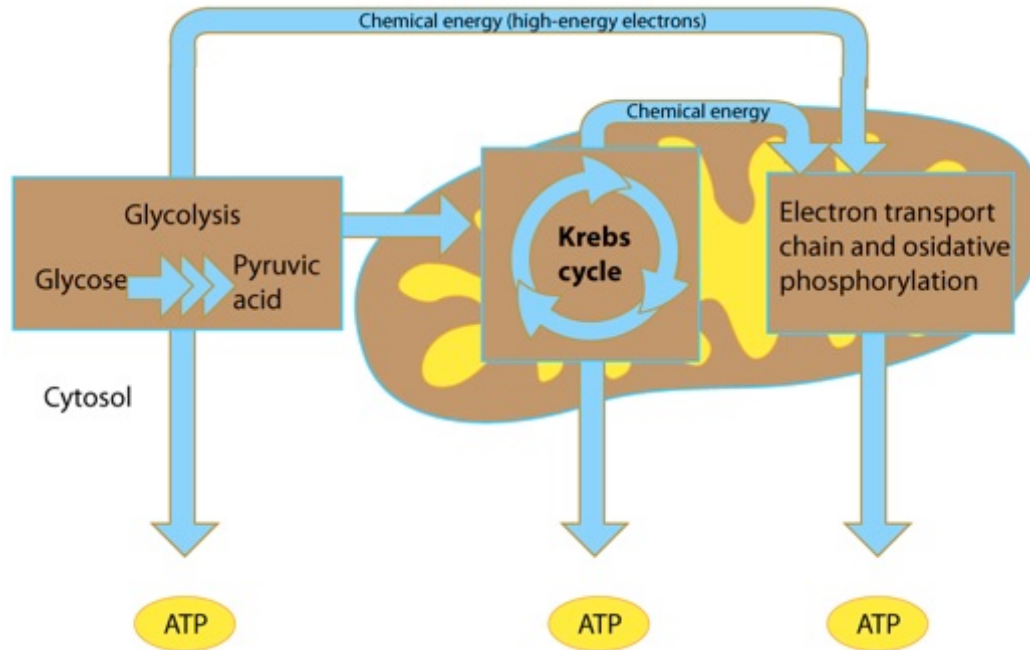
The chemical process of converting chemical energy (glucose) into an alternative form of chemical energy (ATP) for use in carrying out life processes.

# Glycolysis



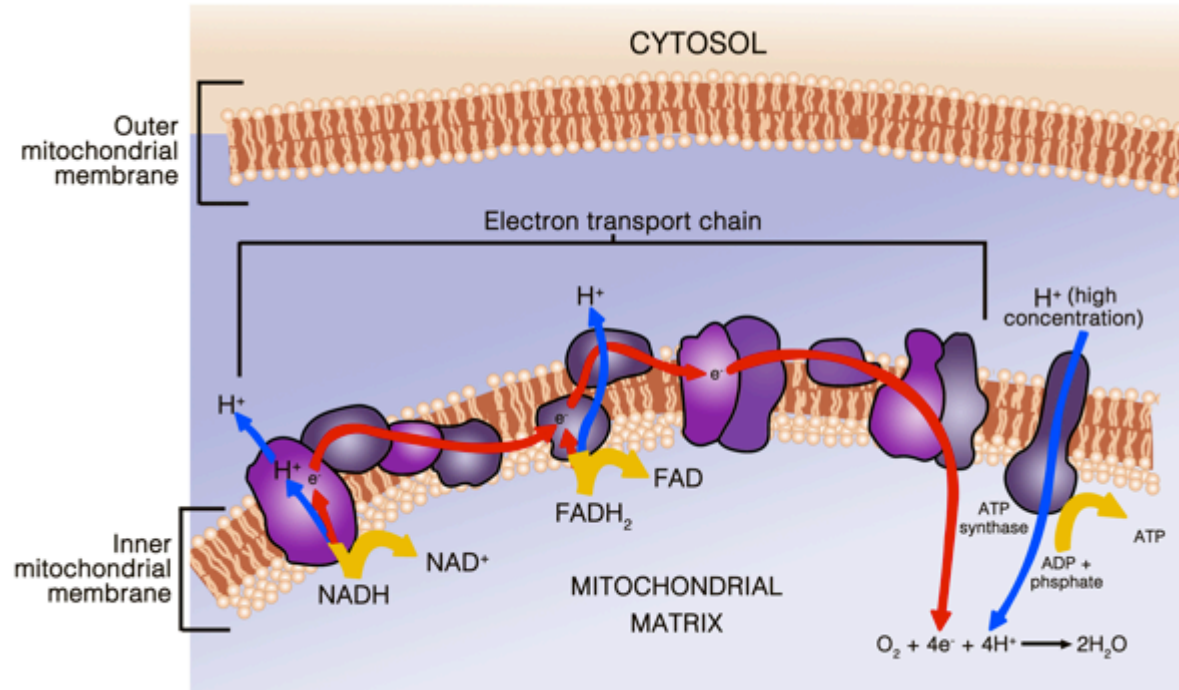
The anaerobic process of energy production that results in the formation of pyruvic acid from the breakdown of glucose

# Kreb's Cycle



An aerobic process that occurs during cellular respiration in which pyruvic acid, through a series of reactions, produces carbon dioxide and small amounts of ATP

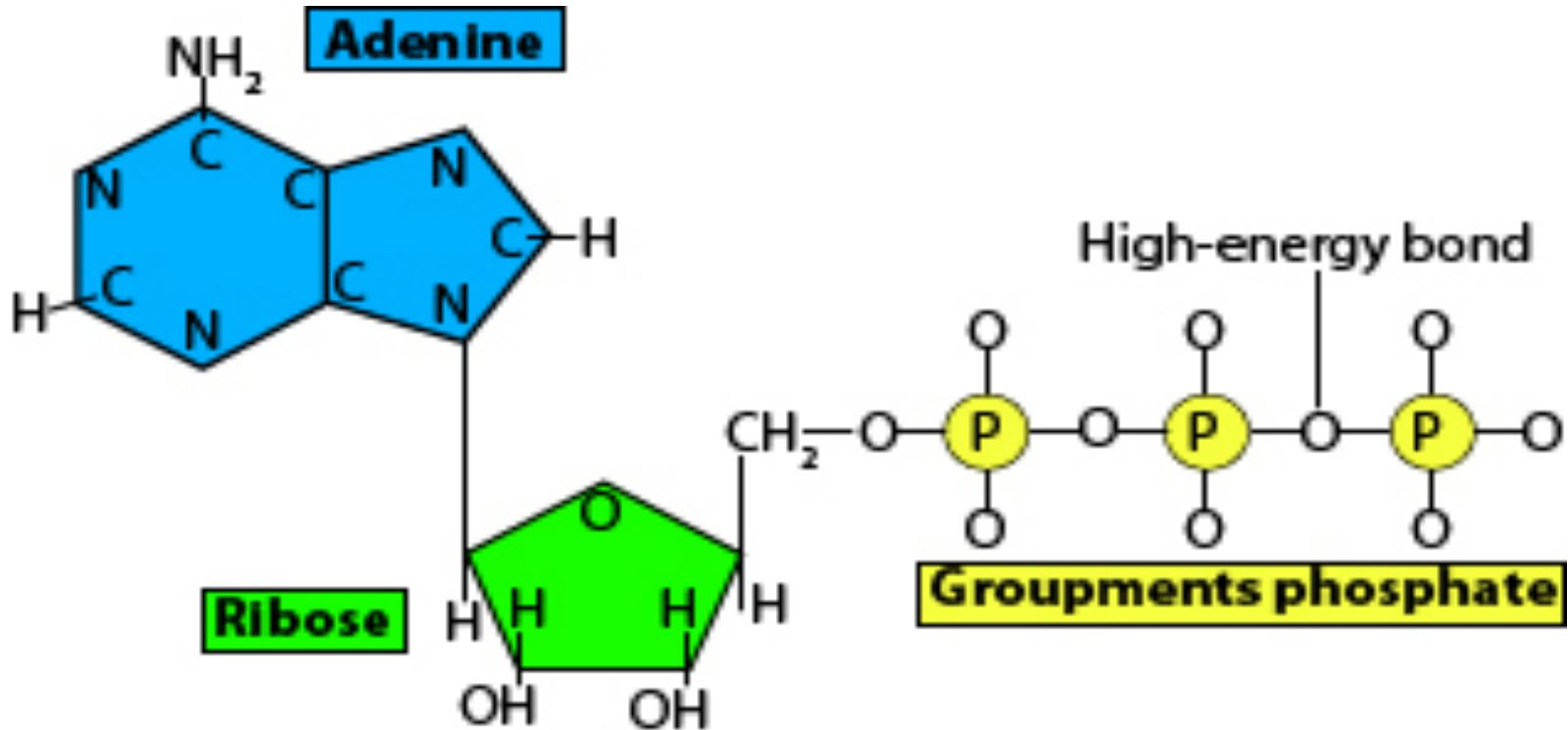
# Electron Transport Chain



An aerobic process that occurs during cellular respiration in the mitochondrial membrane in which electrons are used to generate large amounts of ATP

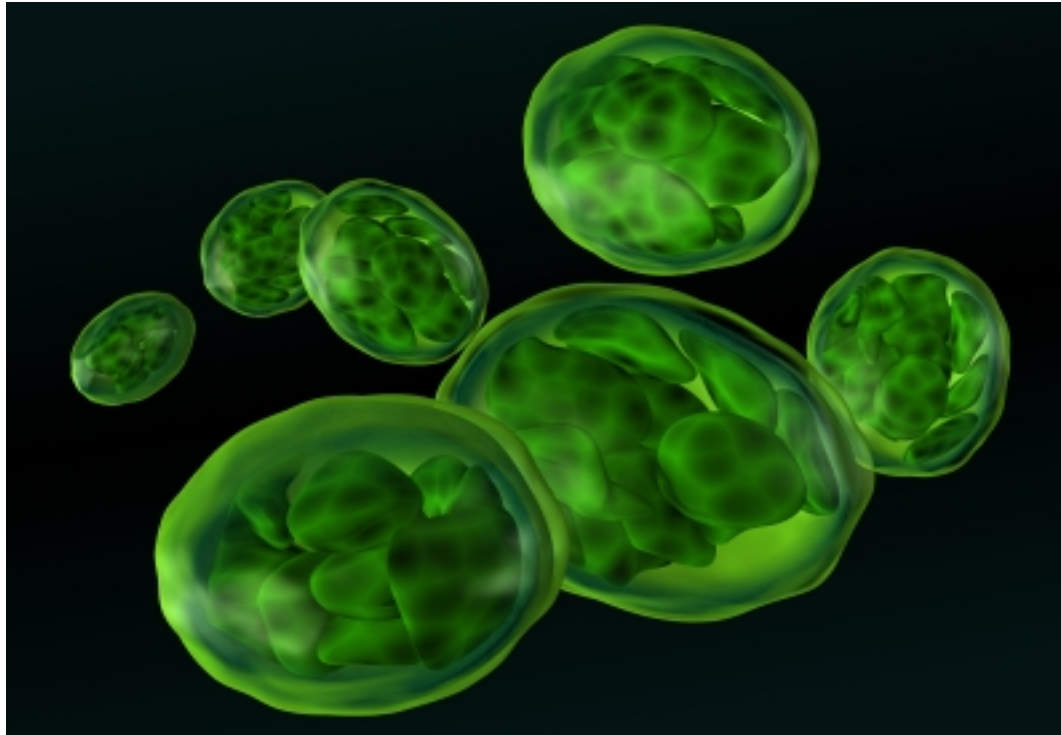


# Adenosine Triphosphate (ATP)



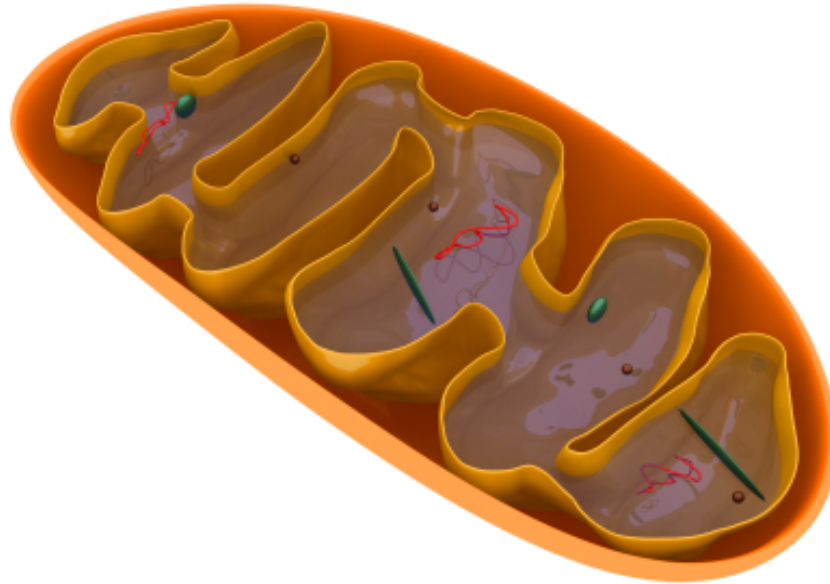
The primary molecule in which energy is stored in chemical bonds for future use in cellular processes

# Chloroplast



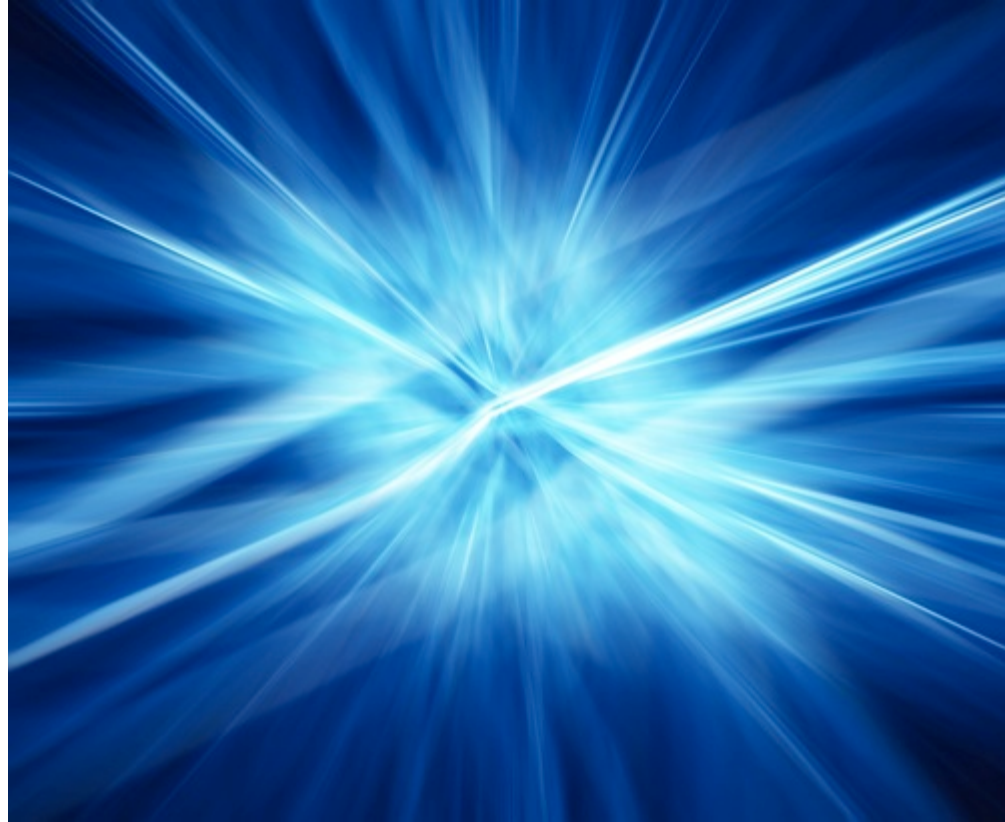
The organelle that contains chlorophyll  
which is necessary for photosynthesis  
to occur

# Mitochondria



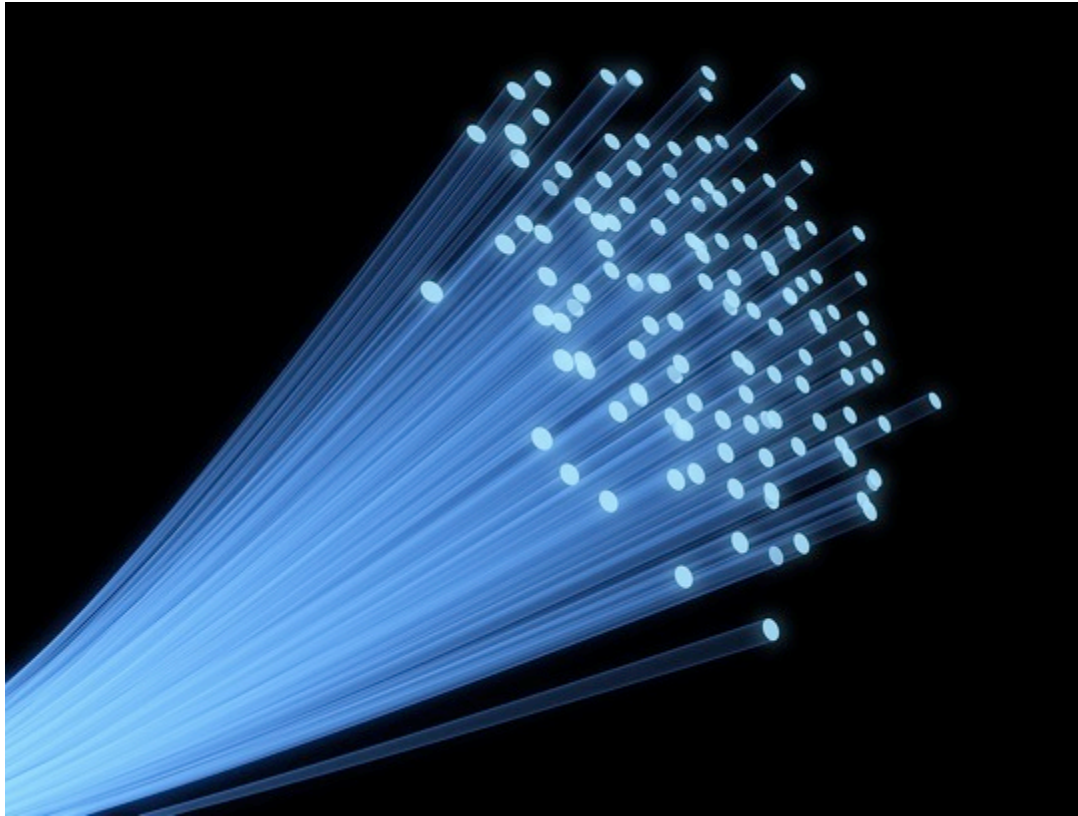
Organelle where energy is produced during cellular respiration; the power house of the cell

# Energy



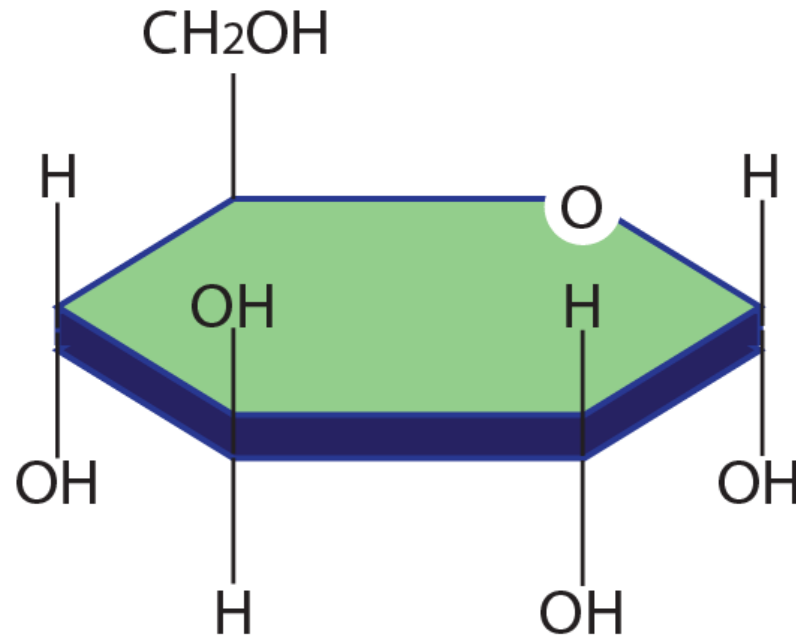
The ability to do work

# Photon



A subatomic particle that carries electromagnetic radiation and emits light

# Glucose



$C_6H_{12}O_6$  is a monosaccharide sugar that is produced in photosynthesis and used during cellular respiration for energy production