

PHOTOSYNTHESIS

- physico-chemical
- light energy to drive the synthesis of organic compounds
- primary source of all food
- responsible for the release of oxygen into the atmosphere

Chloroplast

- membranous system
 1. grana
 2. the stroma lamellae,
 3. and the matrix stroma
- Trap light energy
- synthesis of ATP and NADPH
- In stroma, enzymatic reactions synthesise sugar, which in turn forms starch.
- Light reactions –
 - light into chemical energy
 - forms NADPH and ATP
- Dark reactions -
 - carbon-fixing reaction.
 - light-independent process in which sugar molecules are formed from the carbon dioxide and water molecules.
 - in the stroma, they utilize the products of the light reaction.

Absorption spectrum

- 400-700nm spectrum photosynthetically active radiation (PAR)