1.4 PHOTOSYNTHESIS

Photosynthetic reactions

- Endothermic reaction
- Uses light energy
- 2 stage process
- CO_2 = carbon dioxide
  $C_6H_{12}O_6$ = glucose
  H_2O = water
- $6CO_2 + 6H_2O \rightarrow C_6H_{12}O_6 + 6O_2$
  Sunlight energy
- Happens in chloroplasts

Factors affecting photosynthesis rate

- Carbon dioxide concentration
- Temperature
  - If temperature too high, enzymes will denature
- Light intensity
  - Inverse square law
    - Light intensity ∝ 1/distance^2
      - As distance from light source increases, light intensity decreases

Limiting factor

- Factor that limits photosynthesis rate

KEY

'Higher tier only' written in orange.

OCR (A)

CC BY NC ND