*This is the **Foundation Combined** version — Higher Tier and Separate-only content removed.*

Photosynthesis converts light energy into chemical energy stored in glucose.

Required Practical: Investigating effect of light intensity on photosynthesis rate using pondweed.

- Equation: 6CO■ + 6H■O → C■H■■O■ + 6O■ (light energy required)
- Occurs in chloroplasts containing chlorophyll
- Limiting factors: light intensity, CO■ concentration, temperature
- Glucose used for: respiration, starch, cellulose, proteins (with nitrates), sucrose, lipids
- Rate measured by O■ produced or CO■ consumed

Key Terms

Limiting factor	Factor in shortest supply controlling rate of photosynthesis
Chlorophyll	Green pigment absorbing light energy for photosynthesis

■ **Exam Tip:** Limiting factors: increasing ANY other factor when one is limiting has NO effect. Only increasing the limiting factor will increase rate.