Foundation Separate version — Higher Tier (★) questions removed.

Q1. Write the word equation for photosynthesis and state where it occurs.

[2 marks]

Q2. Describe how light intensity, CO■ concentration and temperature each affect the rate of photosynthesis.

[4 marks]

Total: 6 marks

Q1 (2 marks)

Write the word equation for photosynthesis and state where it occurs.

- CO■ + water → glucose + oxygen (light energy required) [1]
- Chloroplasts [1]

Q2 (4 marks)

Describe how light intensity, CO■ concentration and temperature each affect the rate of ph…

- Light intensity: increases rate until another factor is limiting [1]
- CO■ concentration: increases rate until another factor is limiting [1]
- Temperature: increases rate to optimum then decreases sharply (enzyme denaturation above optimum) [1]
- At any point: one factor is limiting — controls the rate [1]