Higher Combined version — Higher Tier (★) included; Separate-only (◆) 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]