

Photosynthesis & The Environment Questions

1. A plant completes the light reactions of photosynthesis and produces ATP and NADPH. However, the enzyme Rubisco is ineffective as it has been denatured. What do you suspect has happened to this plant? What makes you think this?
2. What do you suspect would happen to a plant if it was grown in an atmosphere with 90% O₂ levels? Explain.
3. What do you predict will happen as environmental levels of CO₂ increase? Explain why?
4. Why can the temperature graph for rate of photosynthesis not be explain simply by stating that enzymes denature?
5. Explain this statement “At **low light** intensities, rate of photosynthesis increases as light **intensity** increases (not temperature). At **high light** intensities, rate of photosynthesis increases by increasing the **temperature** (not light intensity).”