



100% Cotton  
100% Polyester  
100% Nylon  
100% Rayon

100% Cotton



1. **Identify the independent and dependent variables in the following experiment.**

Experiment: The effect of temperature on the rate of photosynthesis in Elodea.

- Independent variable: Temperature
- Dependent variable: Rate of photosynthesis

2. **Design an experiment to test the hypothesis that light intensity affects the rate of photosynthesis.**

Light Intensity	Rate of Photosynthesis
Low	Low
Medium	Medium
High	High

3. **Explain the relationship between the rate of photosynthesis and the rate of respiration in a plant.**

4. **Calculate the net rate of photosynthesis.**

Light Intensity	Rate of Respiration	Rate of Photosynthesis	Net Rate of Photosynthesis
Low	0.5	1.0	0.5
Medium	0.5	2.0	1.5
High	0.5	3.0	2.5

5. **Describe the factors that limit the rate of photosynthesis in a natural environment.**

6. **Draw a graph showing the effect of temperature on the rate of photosynthesis.**

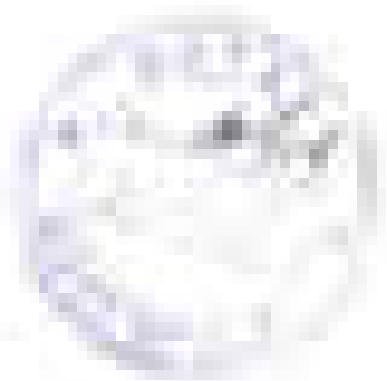
7. **Explain why the rate of photosynthesis is higher in the summer than in the winter.**

Temperature	Rate of Photosynthesis
10°C	Low
20°C	Medium
30°C	High
40°C	Low

8. **Discuss the importance of photosynthesis in the carbon cycle.**

9. **Explain the role of chlorophyll in photosynthesis.**

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