

Plants

Reading – pages 39-41 higher, pages 38-40 foundation

Knowledge

1. In which tissue does most photosynthesis happen?
2. What is transported in the xylem? (2 things)
3. What does the phloem carry?
4. What is translocation?
5. What causes transpiration?
6. What are the small holes in the leaf through which gases can enter and leave and water can evaporate?
7. Name four factors that can affect the rate of transpiration
8. How is the size of the stomata controlled?
9. On which side of the leaf are the most stomata found and why?
10. Which plant tissue would contain stem cells?

Application

1. Describe how carbon dioxide gets from the air to the palisade cells where it is needed for photosynthesis

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2. Describe the processes involved in the transpiration stream

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3. By which process does water move into the roots?

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4. Describe how xylem and phloem cells are adapted for their function.

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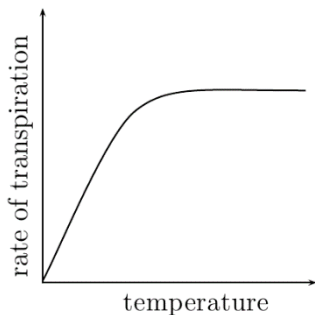
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5. Explain why the rate of transpiration is lower when it is dark

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6. Look at the graph below. It shows the rate of water loss from a leafy plant in different conditions.



a) Describe the trends shown in the graph

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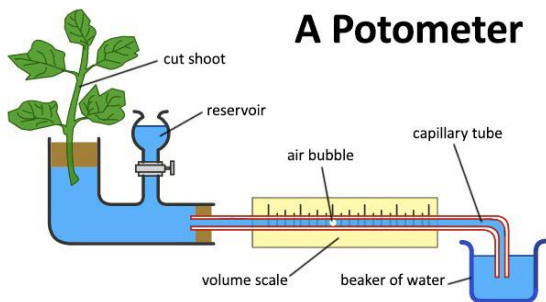
b) Explain why this happens

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c) Sketch the line you would expect to see if you repeated the experiment on a windier day onto the same graph.

7. Look at the equipment below.



Explain how you could use this equipment to test the hypothesis 'The higher the wind speed, the faster the rate of transpiration. Include your Independent, dependent and control variables.

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