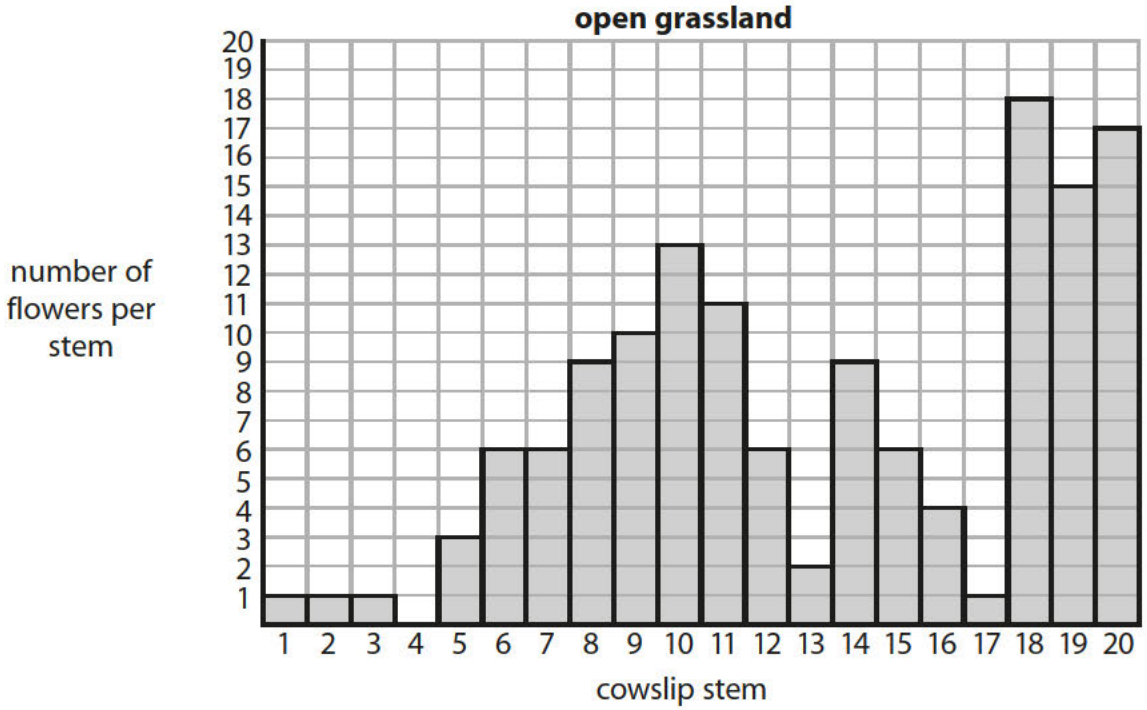
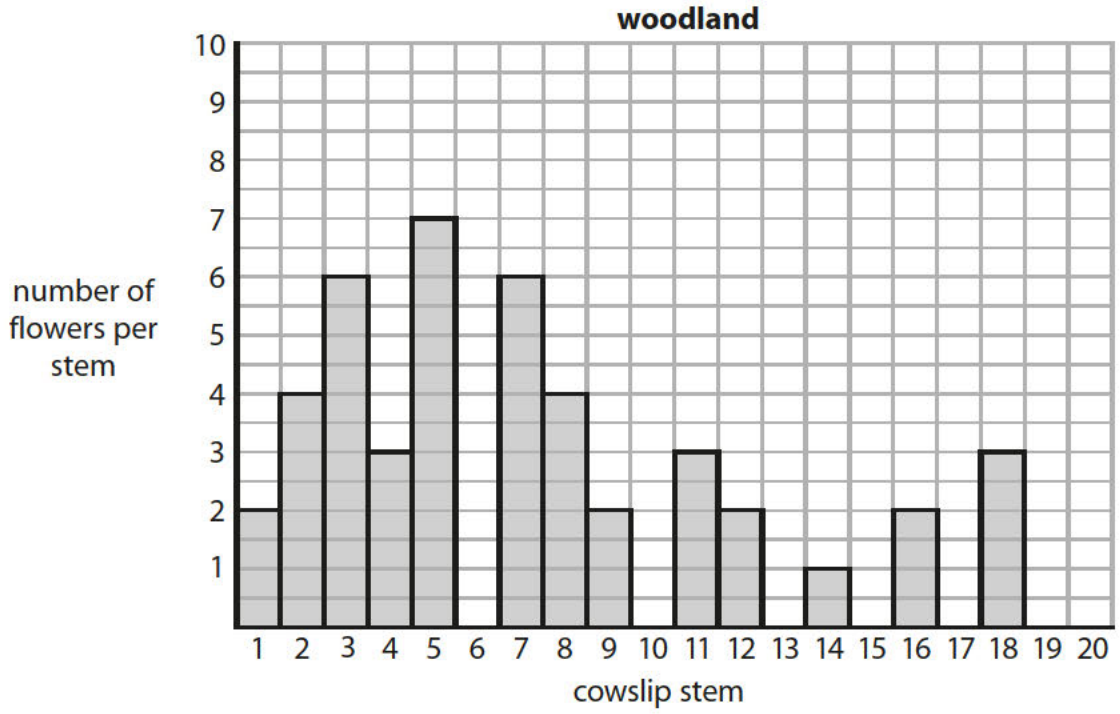
1 Cowslips are flowering plants.
Each cowslip stem can produce different numbers of flowers.
The graphs show the number of flowers on 20 stems of cowslip growing in open grassland and 20 stems of cowslip growing in woodland.





(a) (i) In the open grassland, 60% of cowslips have stems with five or more flowers.

Use the information from the graph to calculate the percentage of cowslips in the woodland that have stems with five or more flowers.

(2)

..... %

(ii) Suggest reasons why there are more stems with five or more flowers in the open grassland.

(2)

.....

.....

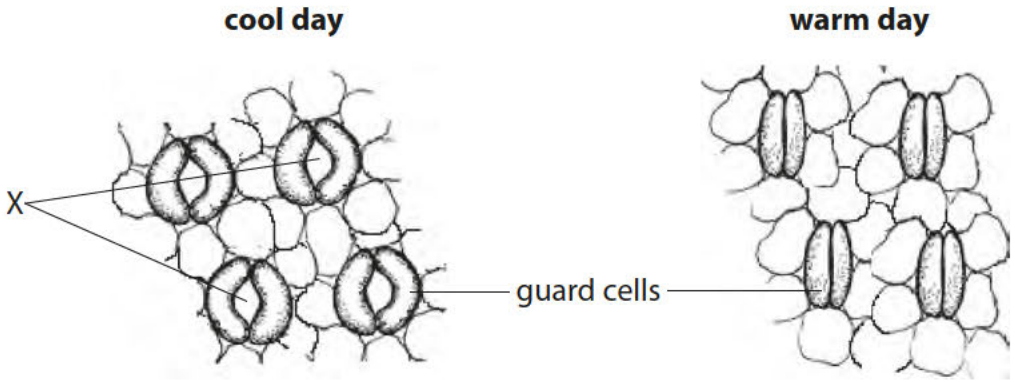
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(b) The diagrams show the underside of a leaf of a cowslip plant on a cool day and on a warm day.



(i) Complete the sentence by putting a cross (☒) in the box next to your answer.

The parts of the leaf labelled **X** are

(1)

- ☐ **A** stomata
- ☐ **B** phloem vessels
- ☐ **C** xylem vessels
- ☐ **D** chloroplasts

(ii) Complete the following sentence.

(1)

Carbon dioxide moves into the leaves through the parts labelled **X** by the process of ..... .

(iii) Explain how changes to the guard cells on the warm day help the plant to survive.

(2)

.....

.....

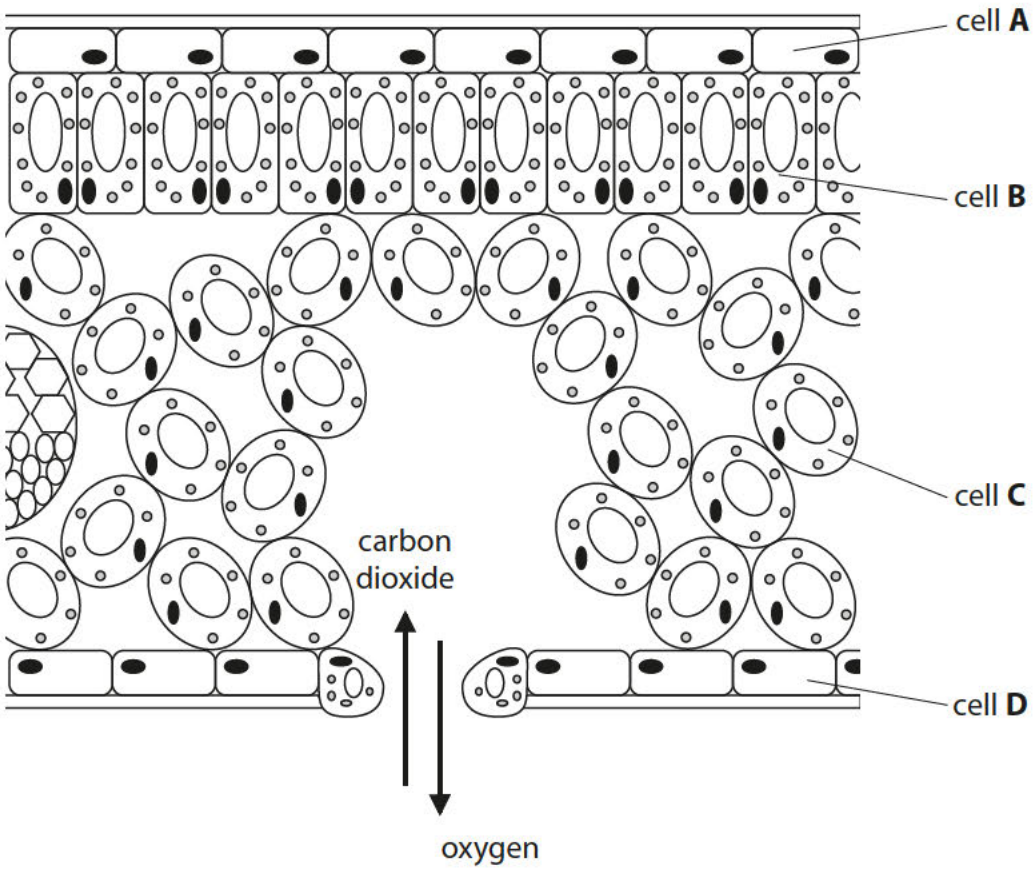
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(Total for Question 1 = 8 marks)

2 (a) The diagram shows a section through a leaf.



(i) Complete the sentence by putting a cross (☒) in the box next to your answer.

The cell that will make the **most** glucose is

(1)

☒ **A**

☒ **B**

☒ **C**

☒ **D**

(ii) Describe how carbon dioxide enters the leaf.

(2)

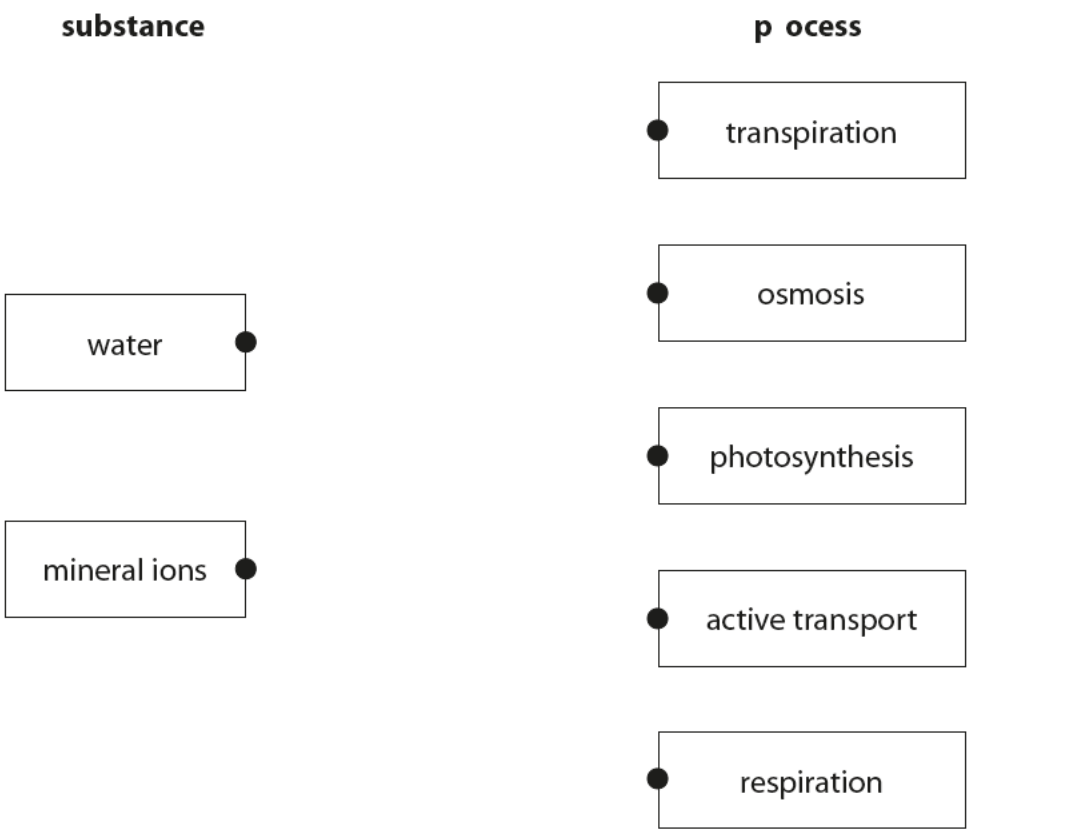
(iii) Describe the process that takes place in the leaf to produce oxygen.

(3)

(b) Root hair cells take in water and mineral ions from the soil.

Draw **one** straight line from each substance to the process by which it enters the root hair cell.

(2)



(Total for Question 2 = 8 marks)