

- 1 A student investigated the rate of photosynthesis in a plant at different temperatures.

The results are shown in the table.

temperature / ° C	rate of photosynthesis / arbitrary units
20	42
25	61
30	77
35	92
40	45

Calculate the percentage increase in the rate of photosynthesis from 20 °C to 30 °C.

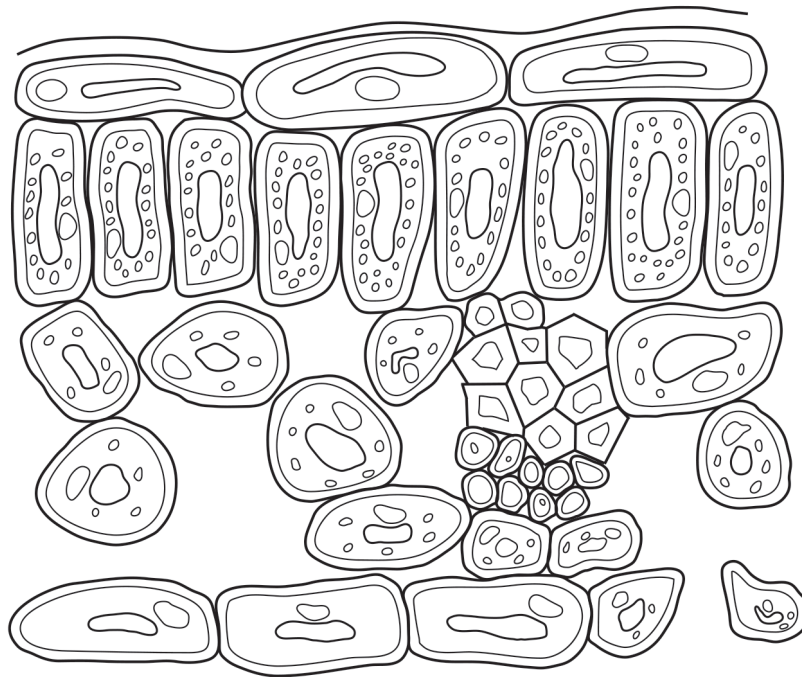
Give your answer to **three** significant figures.

Space for working.

..... % [3]

[Total: 3]

2 The diagram shows a section through a leaf.



On the diagram:

Label with a label line **and** the letter **A** the type of cell where most photosynthesis takes place.

Label with a label line **and** the letter **B** the type of cell which conducts water through the plant. [2]

[Total: 2]

3 State the name of the mineral ion the plant needs to make chlorophyll.

..... [1]

[Total: 1]

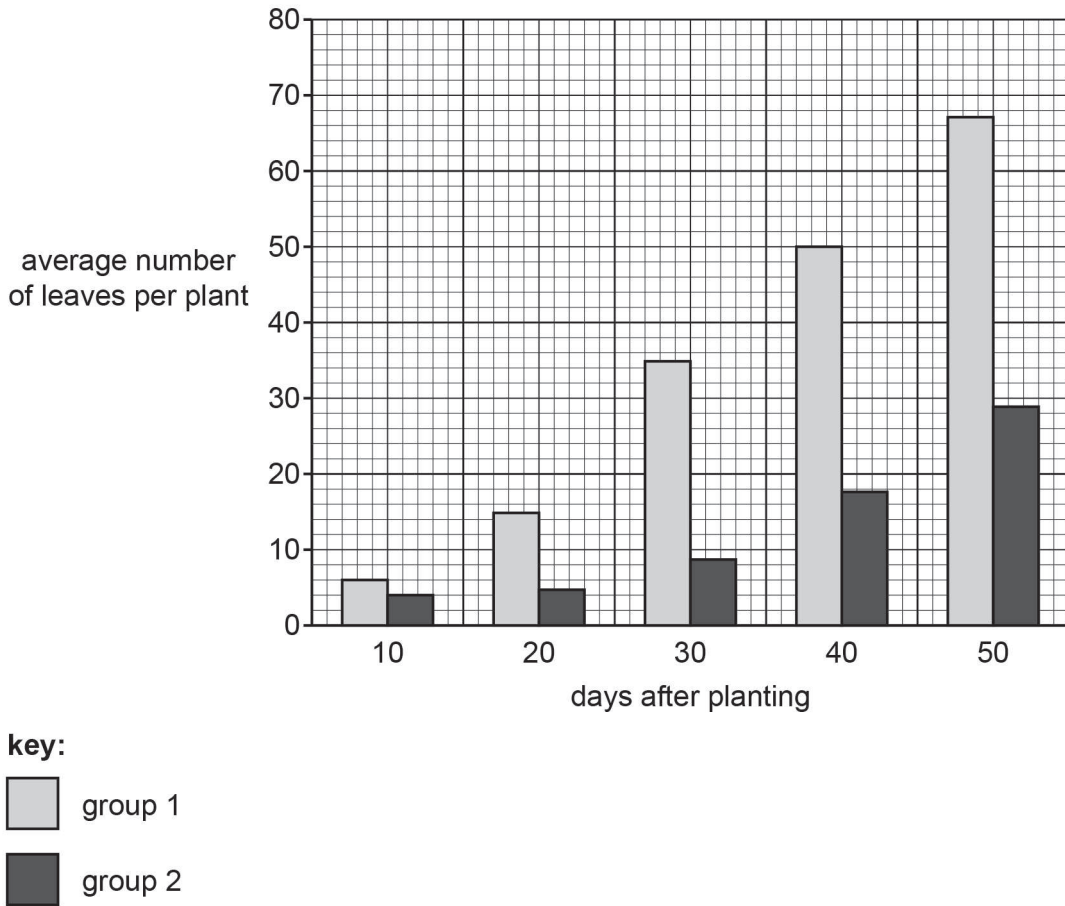
4 Researchers investigated the effects of using a fertiliser on the number of leaves grown by plants.

The fertiliser contained nitrate and magnesium ions.

Plants in group 1 were grown in soil with fertiliser.

Plants in group 2 were grown in soil without fertiliser.

The results are shown in the graph.



Describe the results shown in the graph.

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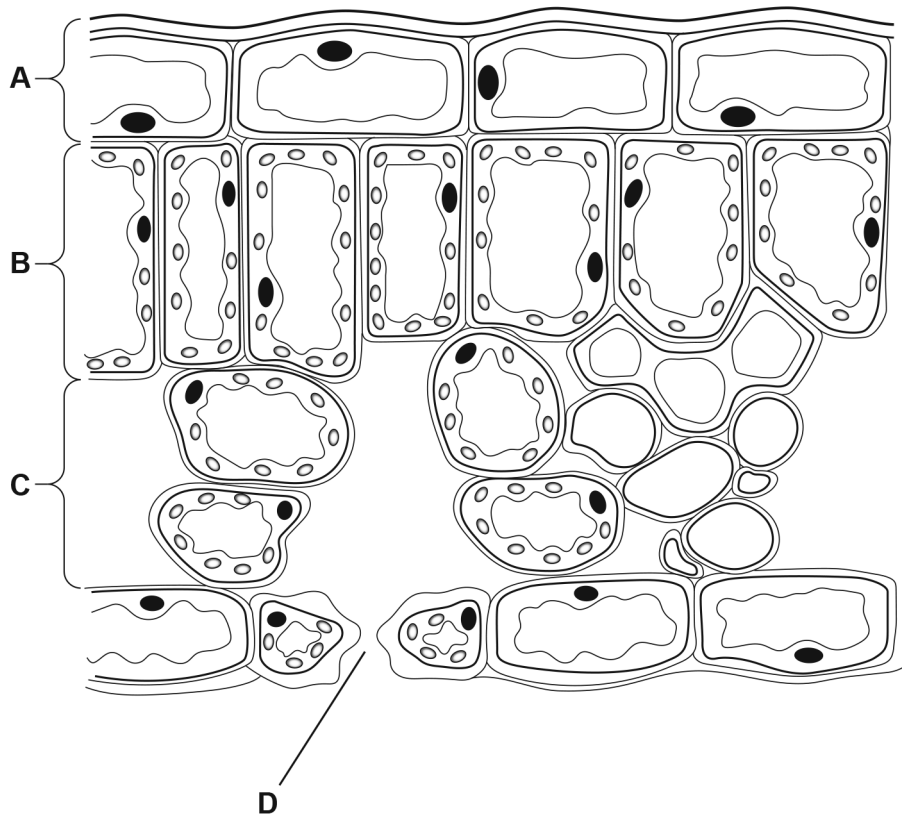
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5 The diagram shows a cross-section of a leaf.



State the name of the tissue in the leaf that does **not** contain chlorophyll.

..... [1]

[Total: 1]