

TOPIC 3: PLANT NUTRITION & TRANSPORT

EXERCISE 3

1. A farmer analyses the nitrogen content of the soil in two of his fields.
The results of this analysis are shown in Fig. 2.1.

	nitrogen content (arbitrary units)
field A	135
field B	30
recommended level	120

Fig 2.1

- (a) Explain why plants need nitrogen.

..... [1]

- (b) (i) The plants in field B do not grow well. In what other way would the appearance of the plants differs from normal?

..... [1]

- (ii) How could the nitrogen content of field B be increased to the recommended level?

..... [1]

2. Complete the word equation for photosynthesis.

water + → glucose + [2]

3. A cross-section of part of a leaf, as it appears under the microscope, is shown in Fig.4.1.

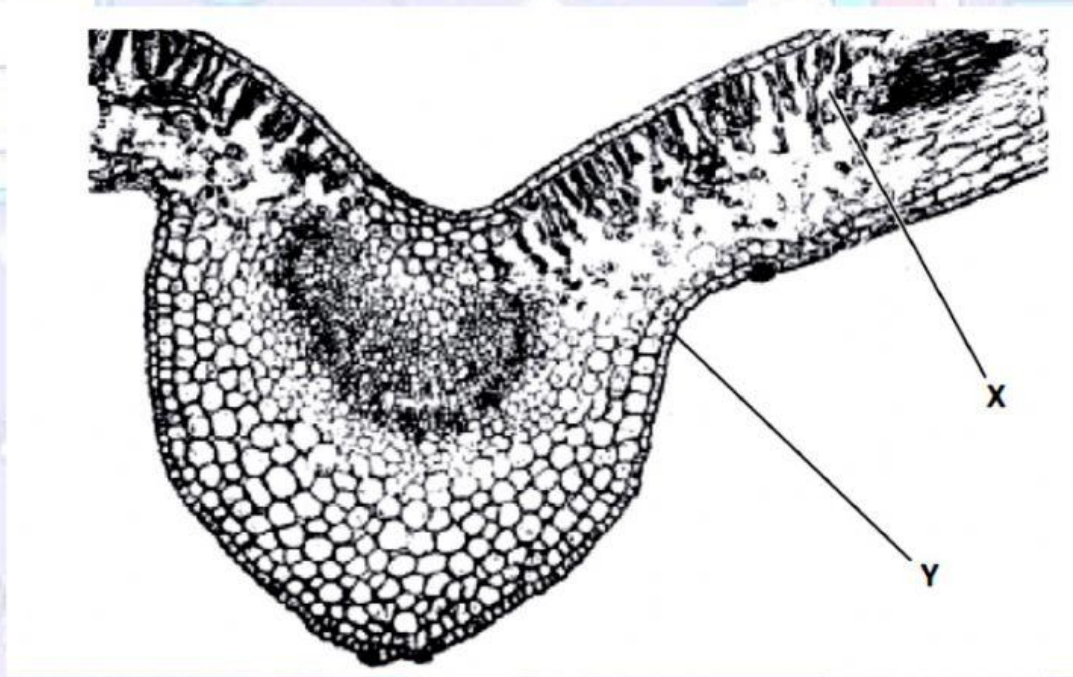


Fig.4.1

a) Name the tissues labelled X and Y.

X

Y [2]

(b) The leaf contains air spaces.

Which tissue contains the most air spaces?

..... [1]

(c) Describe how carbon dioxide enters a leaf during photosynthesis.

.....

..... [2]