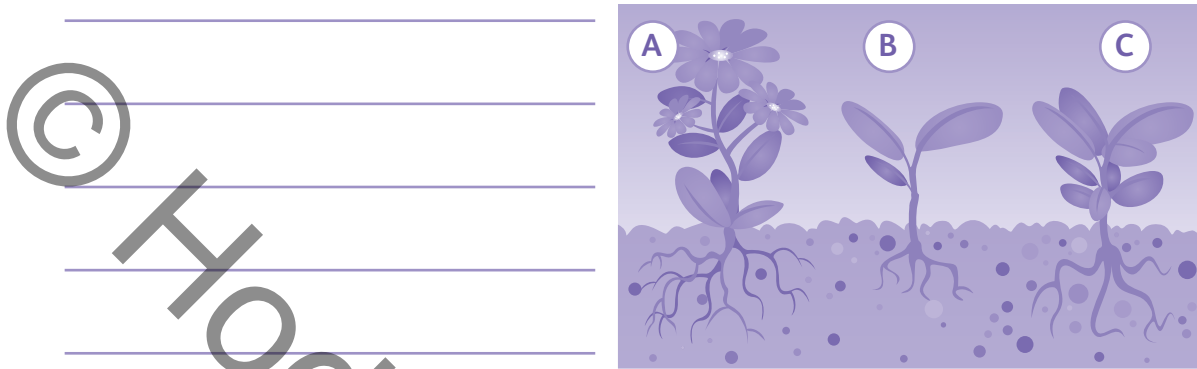


Unit 2 Plants

What do you know about plants?

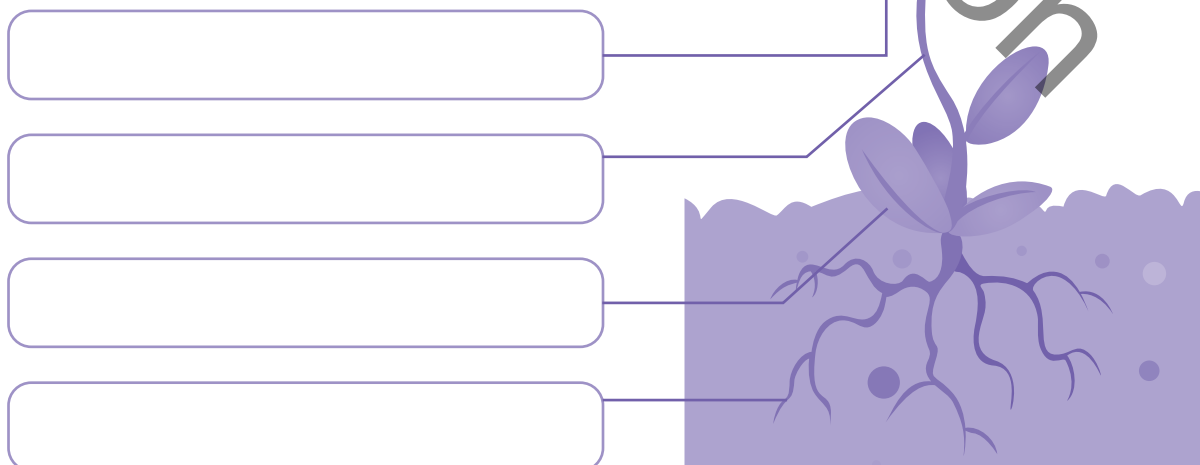
- 1 a Which plant has been growing the longest? Explain your answer.



- b List similarities and differences between the above plants.

Similarities	Differences

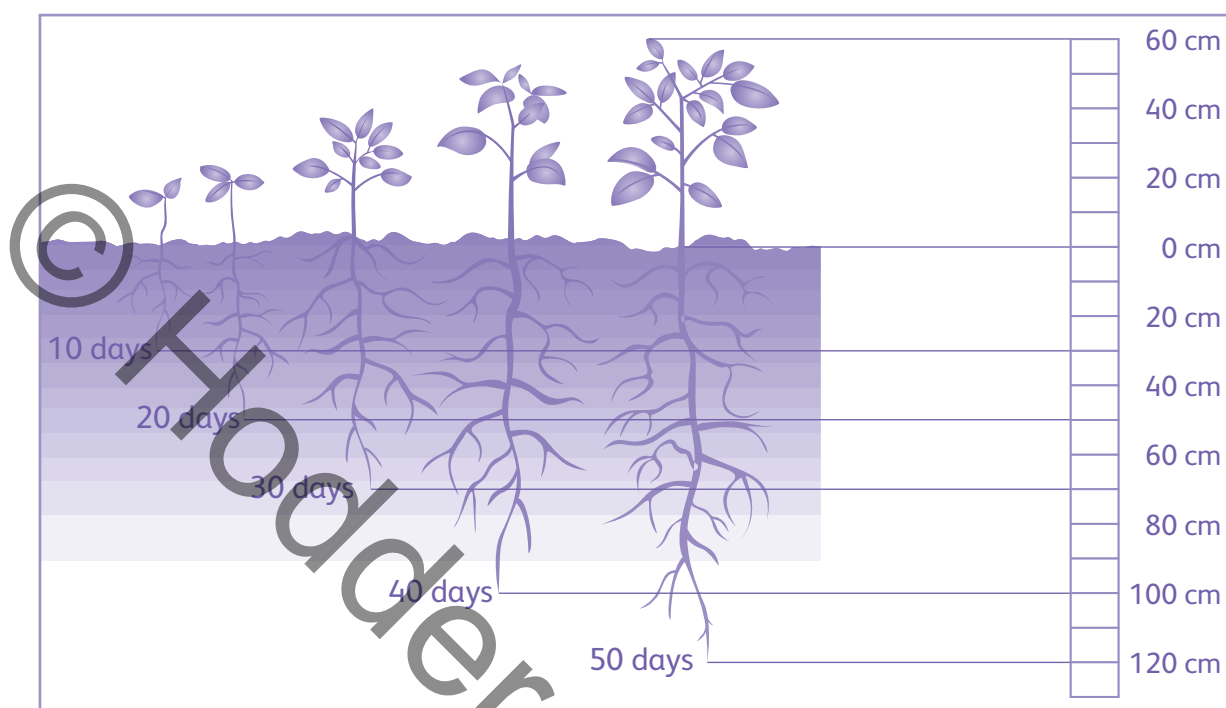
- 2 Label this plant with the name of each part.



Roots

1

This bar chart shows the growth of a cotton plant.



a Use the information in the bar chart to complete this table.

Days	Length of roots (cm)	Number of leaves
10		
20		
30		
40		
50		

b Do the roots grow the same length every 10 days? _____

c What would happen to the plant if its roots were damaged? Why?

d What would happen to the plant if there was a drought (no rain)?

Stems

1

Stems have an important function in a plant. Complete the sentence below. Choose from these words:

water

taste nice

help to transport nutrients

produce new food

support the plant

store food

Stems are important because they _____ and _____ and _____ around the plant.

2

Tick (✓) the correct statement to complete this sentence:

The main stem of a plant helps ...

☐

animals to climb up to get food.

☐

the plant to flower.

☐

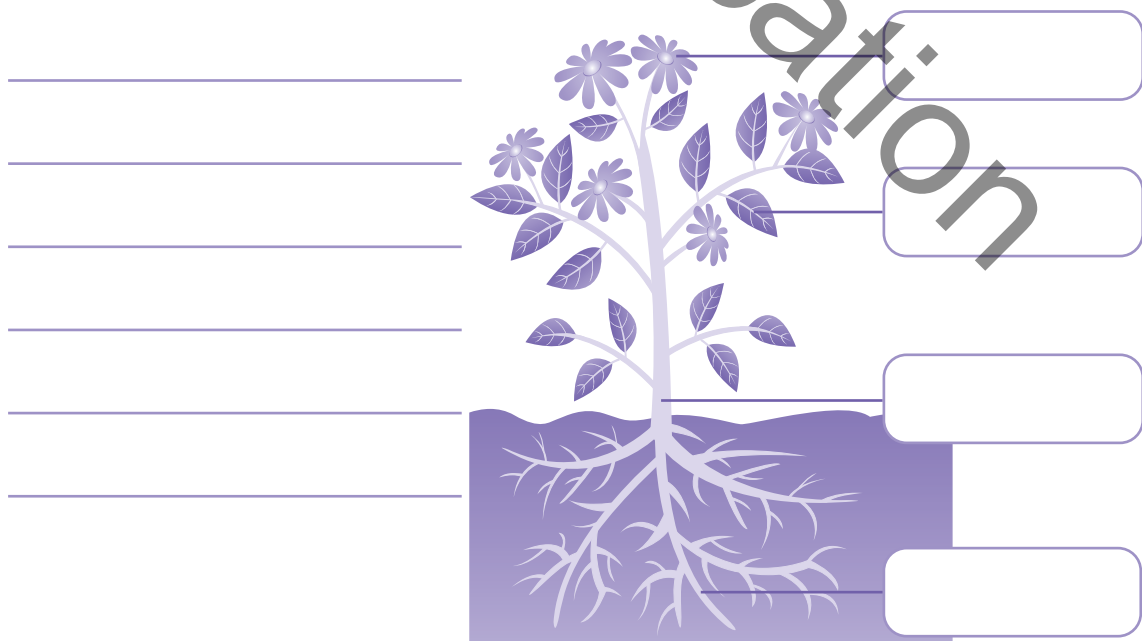
to carry water and nutrients around the plant.

3

a Label the parts of the plant.

b Add arrows to show how water moves from the soil to the plant.

c Write the function of the roots and stem.



Leaf investigation

1

Jack and Zara noticed water on some leaves and asked this interesting question: *What causes plants to lose water through their leaves?*

- They put a leaf from two different plants each in a sealed plastic bag. They left the bags in different places around the school.
- After three hours, they recorded their results in this table:

Conditions	Plant 1 water loss	Plant 2 water loss
in a dark cupboard	no water in bag	no water in bag
in daylight on a desk	no water in bag	10 water droplets
in full sunlight outside	5 water droplets	20 water droplets

a In which conditions was there no water loss for both plants?

b Which conditions caused the greatest water loss?

c Which plant lost the most water?

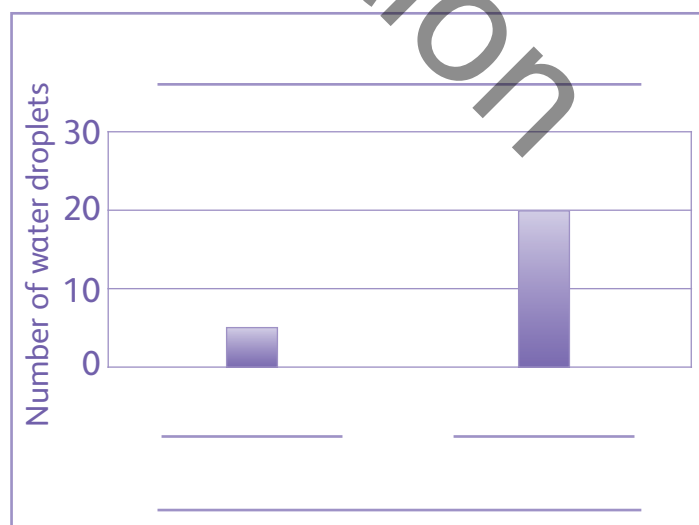
2

Why did the plants not lose water in the dark? Do research to find out.

3

This bar chart shows the results from one of the conditions above.

- a Use the table of results above to write the missing labels.
- b On a squared sheet of paper, draw bar charts to show the results of the other two conditions.



Types of leaves

1

We can classify leaves by their edges. Some leaves have smooth edges, called *entire*. Some have *serrated* (uneven) edges, like teeth. Other leaves have bumps, called *lobed*.

Label each leaf edge below using these words:



serrated

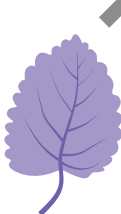
entire

lobed

2

We can classify leaves as simple or compound.

a Label the leaves below as **S** for simple and **C** for compound.



simple



leaf

compound



leaflets

b Complete the sentences using these words:

several leaves

leaflets

only one leaf

A simple leaf has _____.

A compound leaf has _____ called _____.

3

Find examples of simple and compound leaves with different types of edges. Glue your examples onto paper and label them.

Germination of a seed

1

Seeds germinate and grow into plants.

- a Put these pictures in the correct order to show the stages of germination.



first _____ last

- b Which picture shows the plant starting to germinate? _____
- c Which three parts of the plant are growing in picture B?

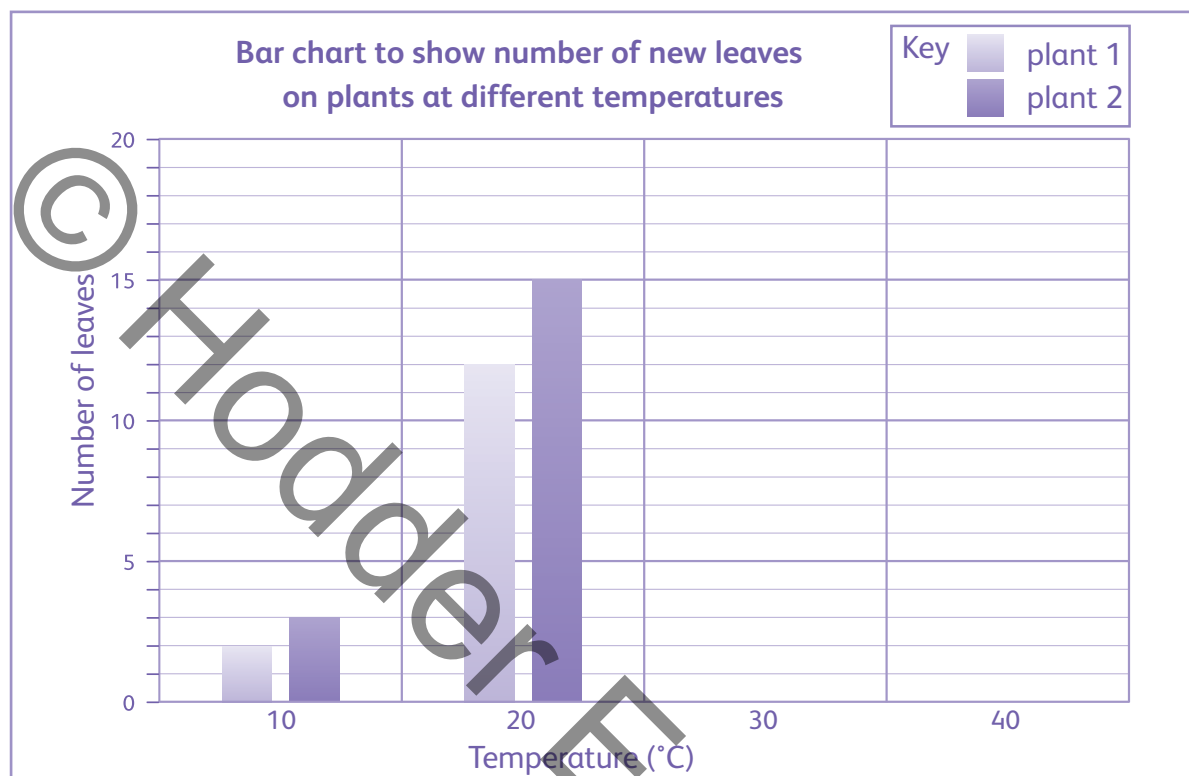
- d What similarities and differences can you see between pictures A and E? _____

- e Which is the adult plant? _____
 How do you know? Explain your answer. _____

Temperature and growth

1

Class 3 put two types of plants in areas with different temperatures. The plants had the same water and light. The bar chart below shows their results.



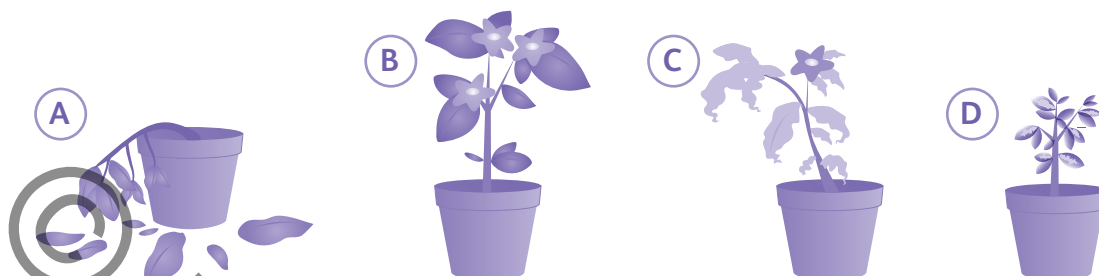
- a Did the plants grow more new leaves at 10 °C or 20 °C? _____
- b Predict how many new leaves might grow at 30 °C. Write a reason for this. Draw your predictions for each plant on the bar chart.

- c Draw your prediction for 40 °C on the bar chart for both plants. Write a reason for your prediction.

- d What else might the plants need more of, if it is 40 °C? Why?

Different conditions

These plants were kept in different conditions for seven days. Their leaves were examined to decide if the plants were healthy.



1

a Which plant looks the healthiest? Why?

b Which plant has pale leaves and a stem that is leaning to one side? Why do you think this is?

c Which plant does not look alive? Why do you think this is?

d What do you think has happened to plant D?

2

Write the letter of the plant above that matches these conditions.

water, light, cold area

☐

light, warm area, no water

☐

water, light, warm area

☐

water, warm area, no light

☐

3

What conditions do plants need to grow well? Explain your answer.

Unit 2 Plants

Self-check



I can do this.



I can do this, but I need to keep trying.



I can't do this yet.

See how much you know!



What can I do?			
1 I can make a prediction.			
2 I can say whether results support or do not support a prediction.			
3 I can interpret results using a bar chart.			
4 I can describe the function of roots, leaves, stems and flowers.			
5 I can say what conditions plants need to be healthy.			

I need more help with:
