Practice

Aliyah's class investigated a scientific question. These are their results.

Colour of flower	Number of insects that visited flower
Red	3
Yellow	12
White	10
Blue	6

2 a Suggest the question that Aliyah's class investigated.

_____

b Identify the type of scientific enquiry they used in their investigation.
Choose from the following types: fair testing, research, observing over time, identifying and classifying, looking for patterns.

_____

3 Draw a bar chart of the results.

4 a Which colour flower did the most insects visit?

_____

b Which colour flower did the fewest insects visit? Suggest a reason for your answer.

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_____

5 a What conclusion can you make from these results?

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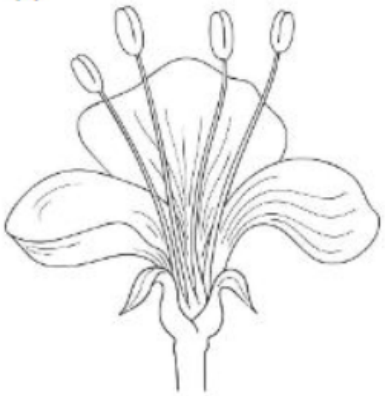
b What can you do to be sure your conclusion is correct?

Challenge

Some kinds of flowers have male parts or female parts only.
The flowers shown in the drawings only have male or female parts.

A



B

6 Which is the male flower and which is the female flower? Say how you know.

7 Describe the process of pollination in flowers like these.

8 Draw arrows on the drawings to show how pollination happens.

Practice

3 Match the way seeds are spread in the first column with the description of how the seed or fruit is adapted to the way it is spread in the second column. Draw a line from the way the seed is spread to the description of the seed or fruit.

Way seed is spread	How seed or fruit is adapted to the way it is spread
By water	Seed has spines and hooks
By wind	Seed pods dry out and burst open
By animals	Seed has spongy covering that helps it float
By explosion	Seed is very light with thin papery wings

4 Describe another way in which plants are adapted to seed dispersal by animals. Give an example.

5 Why must seeds be spread?

Challenge

Ahmed and Yaseen investigated seed dispersal. They collected three different seeds. They dropped each seed three times and measured how long it stayed in the air each time. These are their results.

Seed	Time in the air Reading 1 (seconds)	Time in the air Reading 2 (seconds)	Time in the air Reading 3 (seconds)	Average time in the air (seconds)
Seed 1  single sycamore	9	10	11	10
Seed 2  dandelion	20	22	24	22
Seed 3  helicopter	15	14	7	12

6 How were the seeds in the investigation dispersed?
Give a reason for your answer.

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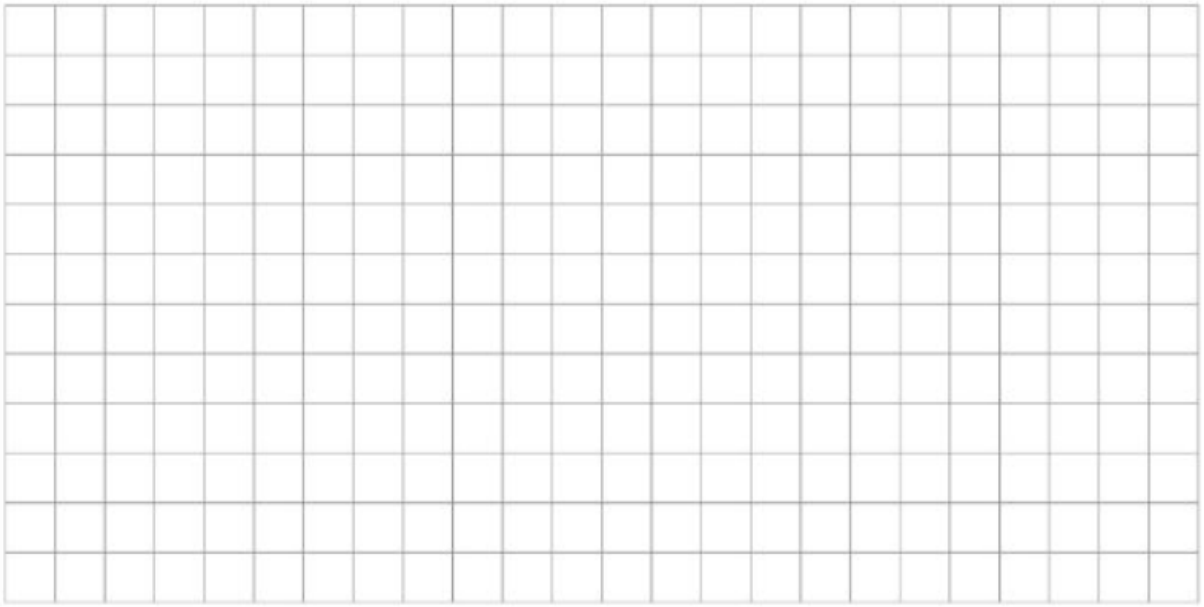
7 Draw a graph of the average time each seed stayed in the air.



8 a Which seed stayed in the air longest?

_____

_____

b Suggest a reason for this.

_____

9 a Why did Ahmed and Yaseen repeat their measurements?

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b One result for one of the seeds is quite different to the others.
Identify the result and suggest a reason for it.

_____

_____

10 Say how Ahmed and Yaseen made the investigation a fair test.

_____

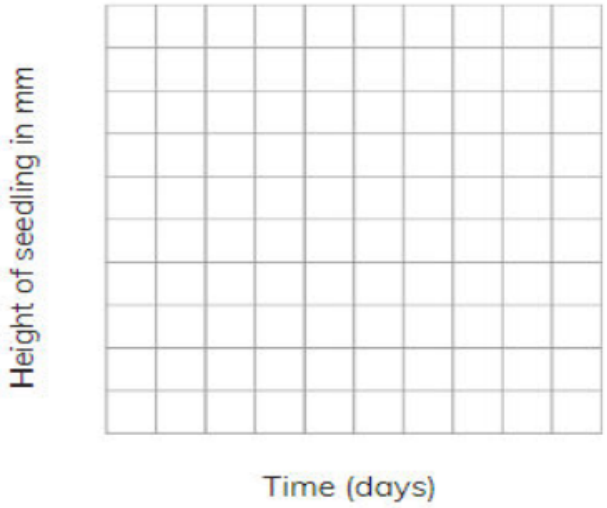
_____

Arun germinated some seeds. He measured the height of one of the seedlings every two days. He wrote down his measurements:

Day 2: 10 mm, Day 4: 15 mm, Day 6: 25 mm; Day 8: 35 mm, Day 10: 40 mm

7 Present Arun's results in a table. Remember to give each column a heading.

8 Draw a line graph of Arun's results.



9 a Where does the seed get the energy it needs for germination?

_____

b Which part of the germinating seed grows first?

_____

c In which direction does it grow?

_____

d Suggest a reason for this.

_____

10 Name two seeds that we eat.

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