1   Working like a biologist

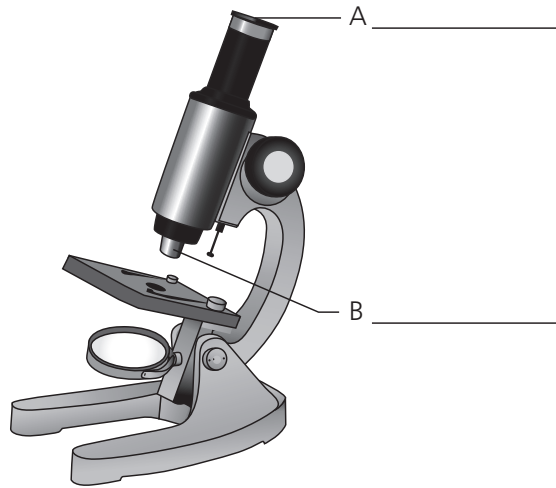**1** The diagram below shows a simple microscope.

A _____

B _____

FIG 1.1

a) On the diagram label the parts identified as A and B.

b) Explain how parts A and B contribute to the overall magnification of the lens.

_____

_____

_____

_____

[3 marks]

2 The line graph below represents the number of grassquits (small birds) seen living in nests on trees in the school yard for six months. Grassquits thrive in a cool environment. The grassquits eat the fruits from the trees which bear only in December and January.
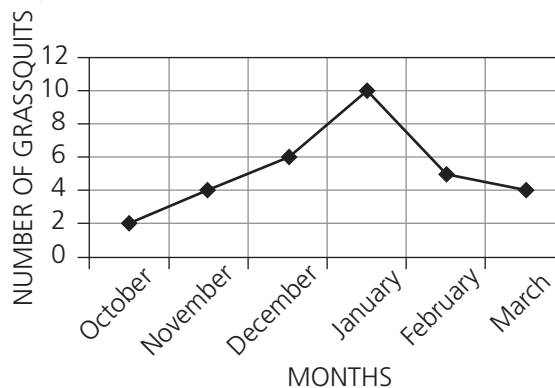

MONTHS
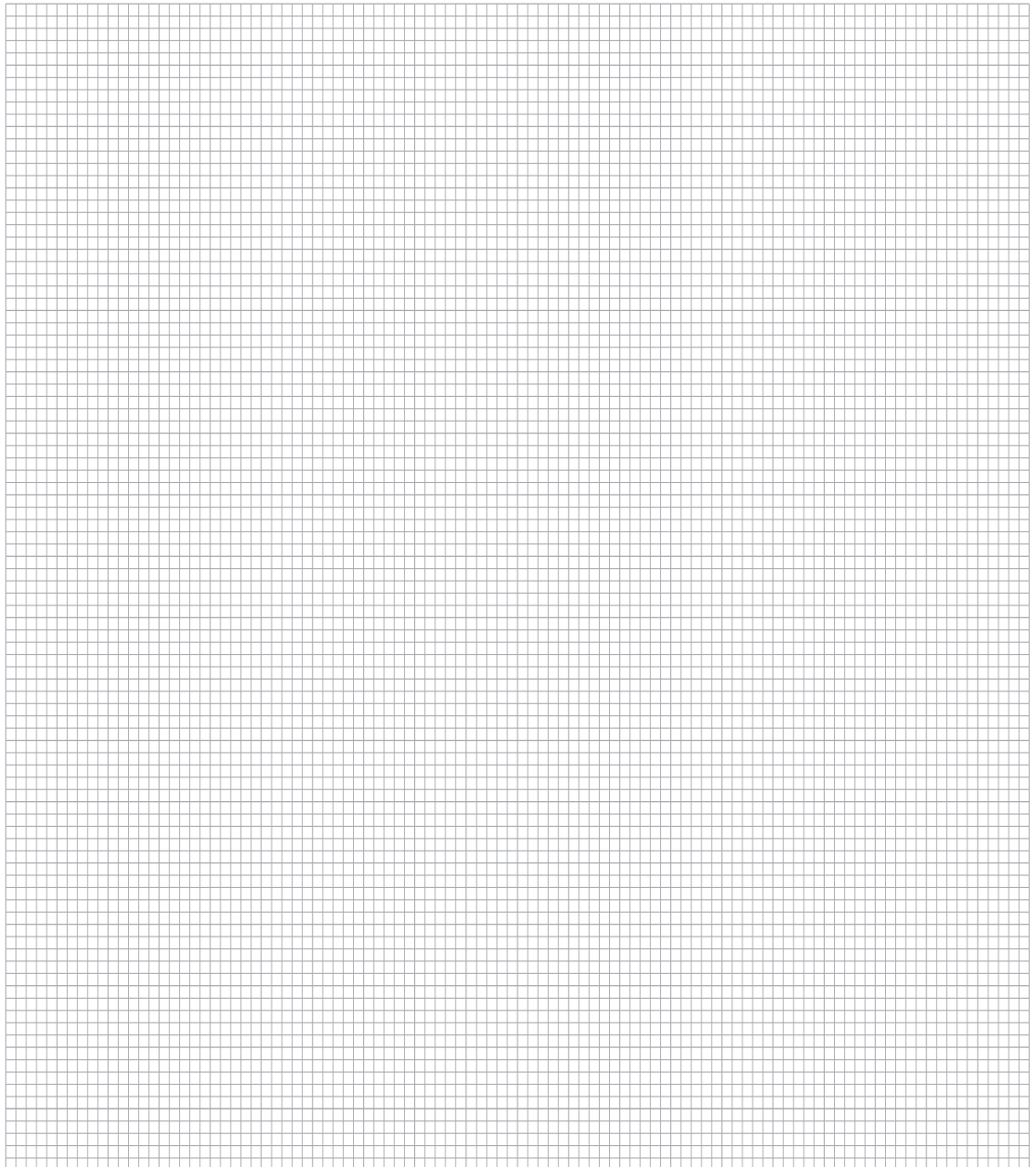
FIG 1.2

Carefully examine the graph and then answer the questions that follow.

a) How many grassquits were observed in February? _____

b) i. During which month did the grassquits numbers increase the greatest?

_____

ii. Give one reason for the answer given above.

_____

_____

c) i. Make a prediction for the number of grassquits for April.

_____

ii. Give one reason for the answer given.

_____

_____

[5 marks]

3 The students of Summit High counted the number of butterflies that they found on each tree in the school yard near the end of the butterfly season. They compiled the data as below.

5	8	2	8	4	2	5	5	4	2	2
2	2	7	6	8	4	5	2	4	5	2
7	4	7	6	6	4	2	4	7	4	5

a) Construct a frequency table to represent the data.

TITLE: _____

[5 marks]

b) Use the table constructed to make a bar graph. Use the grid provided below. Remember to label the axes.

[10 marks]

TITLE: _____

_____

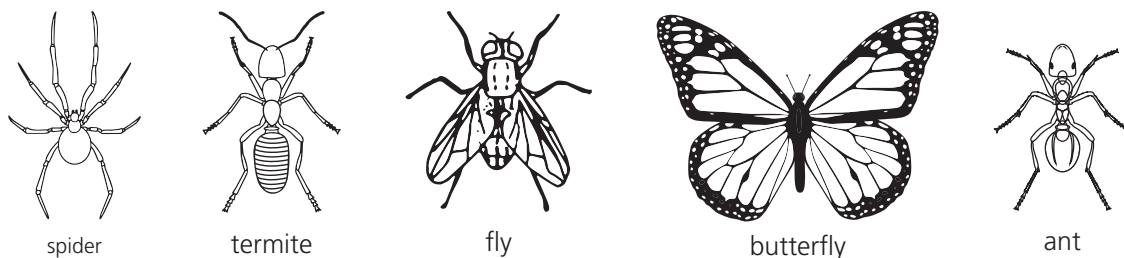4 The diagrams show five different organisms that were found on the school's compound.

spider   termite   fly   butterfly   ant

FIG 1.3

a) State TWO observable features that could be used to classify them.

_____

_____

b) Classify the organisms using the TWO features you stated above.

_____

_____

_____

[4 marks]

5 Complete the crossword puzzle by using the clues to fill in the blanks.

Across

5. Instrument used to make the cell appear larger.
6. This refers to how much larger or smaller something is when compared to its actual size.
7. Anything being studied or observed is referred to as the _____ .
8. A magnifying glass held by the hand.
9. Glassware used for mounting specimens.
10. The building block of all living things.
11. The drawing off of or absorption of excess water and stain.
12. The number of times an item of a particular value occurs within the data.