Worksheet D

Show Data using Pictograms and Bar Charts

Level 1 Level 2 Level 3

I Mrs Farah wants to find the number of family members her students have.

> If you are not sure, you can refer to Student's Book pages 237 to 240.

4	5	6	5	4	5	8	5	5	5
5	5	4	4	3	7	7	6	3	4

Complete the pictogram.

Number of family members	Number of students
3	♥
4	♥ ♥ ❨
5	♥ ♥ ♥ ♥
6	♥
7	♥
8	❨

♥ stands for 2 students. **the key**

2 Calvin asked his friends about their favourite types of movies. He wrote down the data he collected.
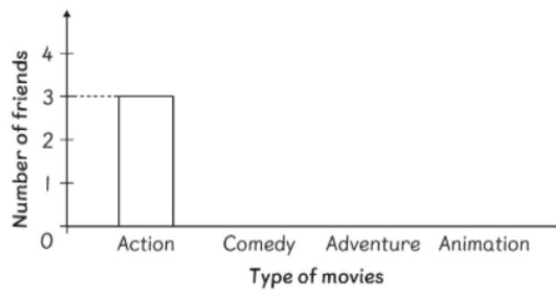
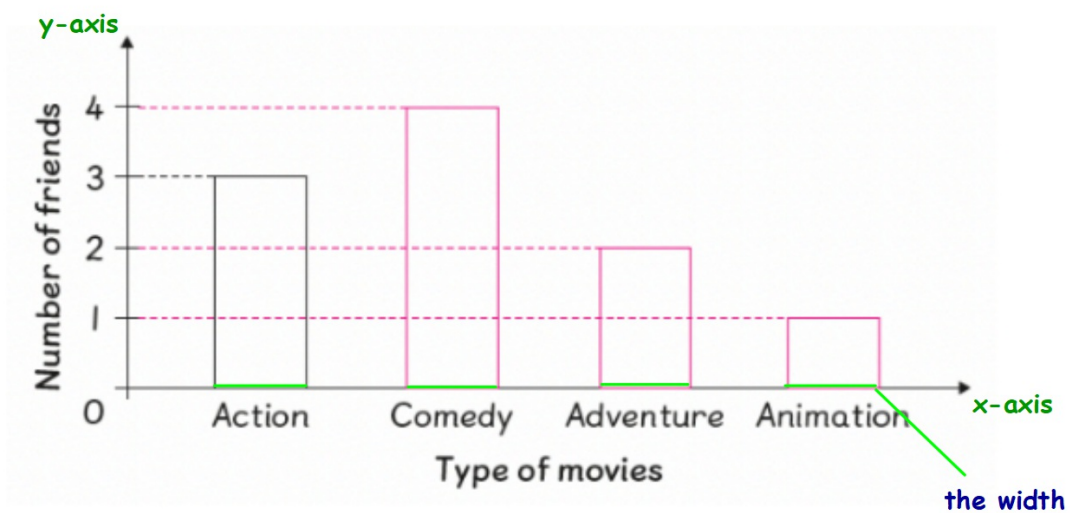| Action | Animation | Comedy | Action | Comedy |
| Comedy | Comedy | Adventure | Adventure | Action |

a Complete the frequency table.

Types of movies	Action	Comedy	Adventure	Animation
Frequency	3	4	2	1

b Complete the bar chart.

Favourite type of movies   title

y-axis

Number of friends

4

3

2

1

0   Action   Comedy   Adventure   Animation   x-axis

Type of movies

the width

The width of the bars is the same.
The height of the bars shows the number of friends.

3 The pictogram shows the favourite ice cream flavours of some children.

Flavour of Ice Cream	Number of Children	
Chocolate	🍦🍦🍦🍦🍦🍦	12
Mint	🍦🍦🍦	5
Strawberry	🍦🍦🍦	6
Vanilla	🍦🍦🍦🍦	7
🍦 stands for 2 children.		

a Complete the bar chart.

What other ways can you use to show this data? Which is easier to use? Why?

Number of children
12
10
8
6
4
2
O   Chocolate   Mint   Strawberry Vanilla
Flavour of ice cream

b How will the bar chart change if we change it to a scale of I unit on the vertical axis? Which scale is better?

The bars will be taller.
For example: Using a scale of 2 units is better for larger data.

y-axis

Favourite ice cream flavour   title

Number of children

12
10
8
6
4
2
0

Chocolate   Mint   Strawberry   Vanilla

x-axis

Flavour of ice cream
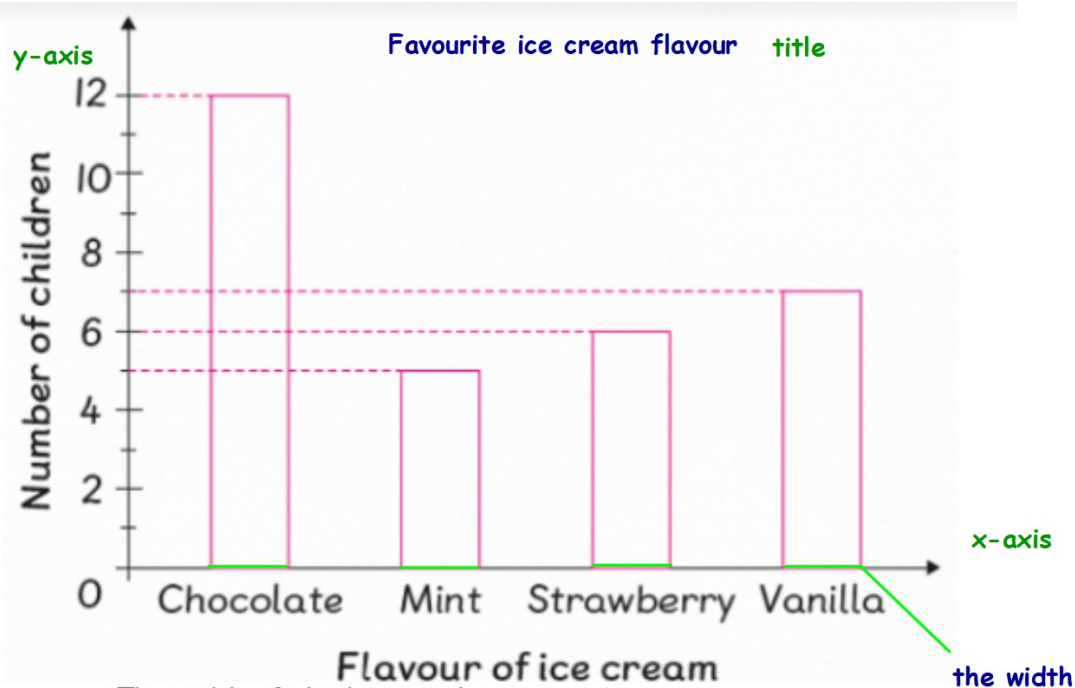
the width

The width of the bars is the same.
The height of the bars shows the number of children.

4 Ginny wrote down the favourite drinks of 180 people.

- 50 people like fruit juice.
- 30 people like smoothie.
- 80 people like milk.
- 20 people like soda.

Ginny used the data collected to draw a bar chart.

Marcus pointed out two mistakes in the bar chart.
What are the mistakes and how can you correct them?

First mistake: The scale of the vertical axis is incorrect. The scale should be in 10s, instead of 1s. So, Ginny should change the scale to 10, 20, 30....

Second mistake: The vertical axis should not start from 1. It should start from zero. When it starts from 1, the frequency for coffee shows twice the frequency for soda, which is incorrect.