Varied Fluency
Step 1: Interpret Charts

National Curriculum Objectives:

Mathematics Year 4: (4S1) Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs
Mathematics Year 4: (4S2) Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs

Differentiation:

Developing Questions to support interpreting charts, including pictograms, tables and bar charts with single digit correspondence. Solve single step questions.
Expected Questions to support interpreting charts, including pictograms, tally charts, tables and bar charts with 2:1 or 10:1 correspondence and multiple unit scales. Solve two step questions.
**Greater Depth** Questions to support interpreting charts, including pictograms, tally charts, tables and bar charts with any value of correspondence and multiple unit scales. Solve multi step questions.

More Year 3 and Year 4 Statistics resources.

Did you like this resource? Don't forget to review it on our website.

Interpret Charts

1a. Look at the pictogram:
Y4 Pets

Cat	🐱🐱🐱🐱🐱
Dog	🐕🐕🐕🐕🐕🐕
Fish	🐟🐟🐟
Rat	🐀
Snake	🐍

each image = 1
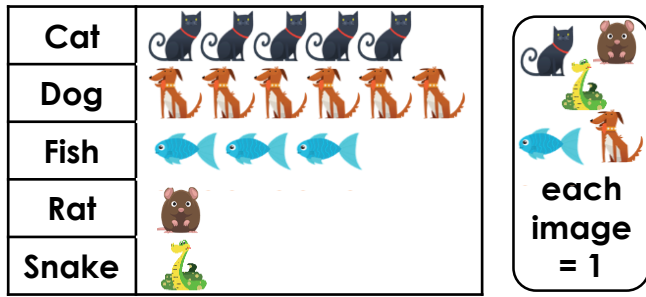
Fill in the blanks in the table.

Cat	Dog	Fish	Rat	Snake
5			1	

4   VF

1b. Look at the pictogram:
Shoe Size

1	👟👟
2	👟👟👟
3	👟👟👟👟
4	👟👟👟
5	👟

each image = 1
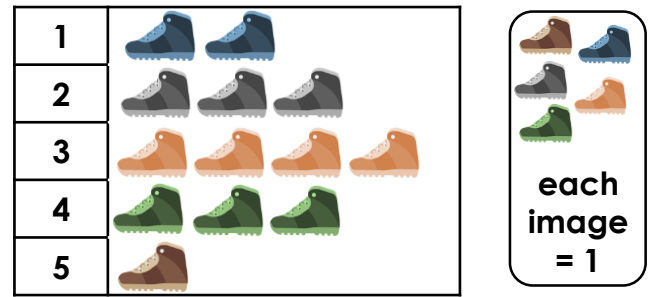
Fill in the blanks in the table.

1	2	3	4	5
			3	1

4   VF

2a. Think of one question to ask about the information in this pictogram: *Favourite Drink*

Cherry	🥤🥤🥤🥤
Banana	🍹🍹🍹🍹
Mango	🥤🥤🥤🥤🥤🥤🥤

4   VF

2b. Think of one question to ask about the information in this pictogram: *Favourite Sport*

Tennis	🎾🎾
Football	⚽⚽⚽⚽⚽⚽
Basketball	🏀🏀🏀
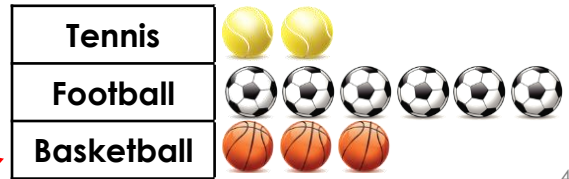
4   VF

3a. Use the information in the table to complete the pictogram: *Sweets Sold*

🍭	4
🍭	2
🍥	6

each image = 1

Red	Pink	Blue
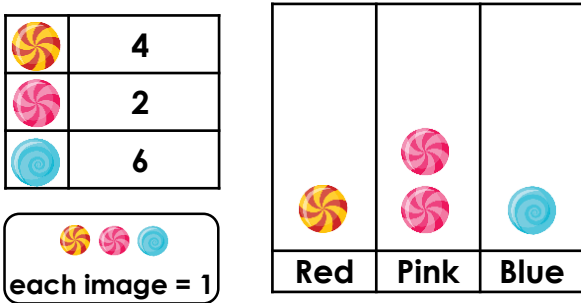
4   VF

3b. Use the information in the table to complete the pictogram: *Toys Sold*

🥁	5
🪀	3
🦖	6

each image = 1

drum	yoyo	teddy
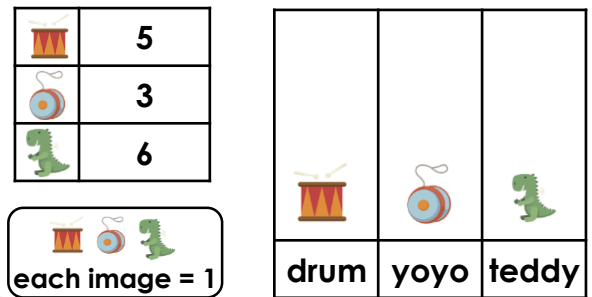
4   VF

4a. Look at the bar chart: *Y4 Hobbies*
Which hobby is most popular?

Votes — Bike Riding, Scouts, Dance, Drama — Hobbies
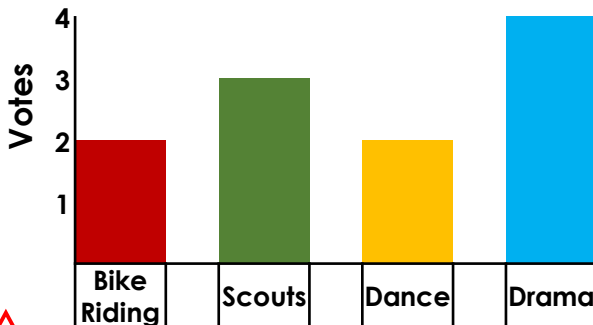
4   VF

4b. Look at the bar chart: *Bikes Sold*
Which month did they sell the least bikes?

Sales — Jan, Feb, Mar, April — Month

4   VF

classroomsecrets.co.uk
Varied Fluency – Interpret Charts – Year 4 Developing
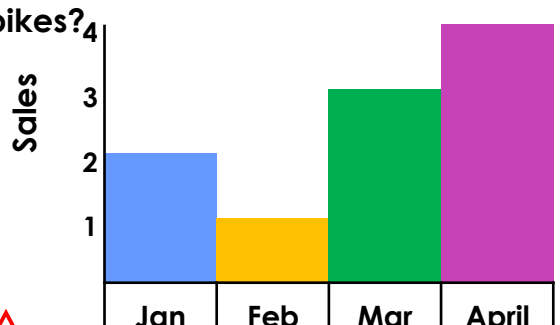
Interpret Charts

5a. Look at this bar graph:
Distance Travelled

Distance (km)

40 · 30 · 20 · 10 · 0

Trucks: 1, 2, 3, 4
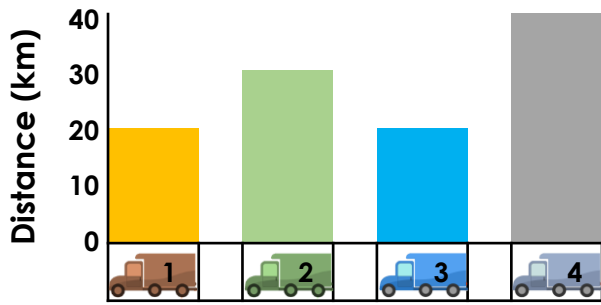
Fill in the blanks in the table below.

Truck 1	Truck 2	Truck 3	Truck 4
		20km	

E · 4 VF

5b. Look at this block graph:
Pupils per class

Amount of Pupils

34 · 32 · 30 · 28

Oak Class · Birch Class · Holly Class · Rowan Class
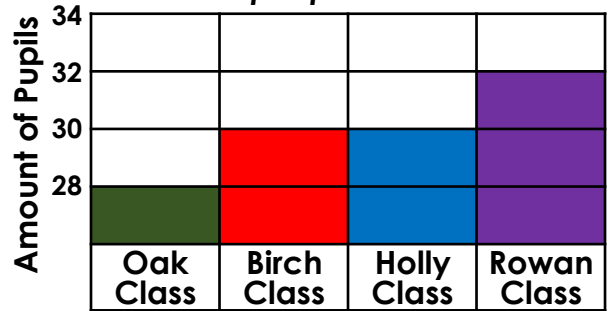
Fill in the blanks in the table below.

Oak	Birch	Holly	Rowan
	30		

E · 4 VF

6a. Think of two questions to ask about the information in this tally chart:
Breakfast

Cereal	N̄N̄ I
Fruit & Yoghurt	N̄ IIII
Toast	N̄ III

E · 4 VF

6b. Think of two questions to ask about the information in this tally chart: *Car Colour*

Black	N̄ N̄ N̄ II
Silver	N̄ N̄ N̄ I
Red	N̄ N̄ N̄ III

E · 4 VF

7a. Use the information in the table to create a bar chart: *Livestock*

Goats	N̄ I
Sheep	IIII
Pigs	II

6 · 4 · 2

Goats · Sheep · Pigs
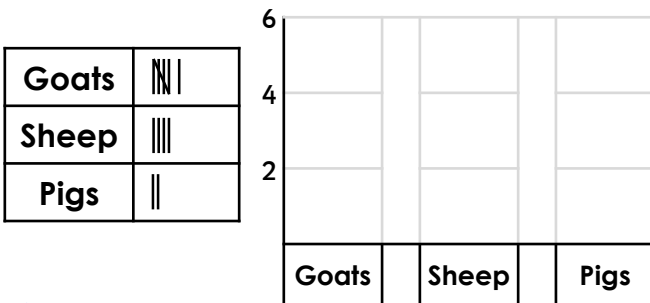
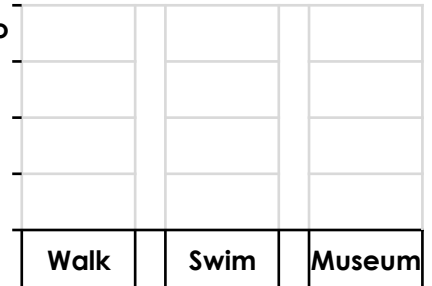E · 4 VF

7b. Use the information in the table to create a bar graph: *Holiday Activities*
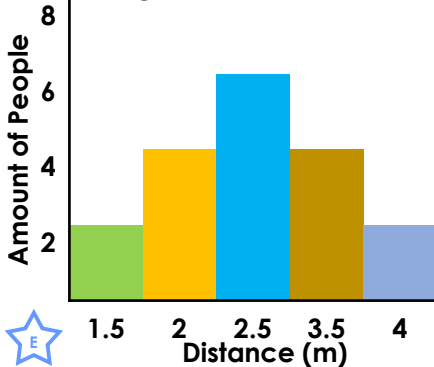
Hint: Remember to add a scale.

Walk	10
Swim	30
Museum	50

Walk · Swim · Museum

E · 4 VF

8a. Look at the bar chart: *Distance Beanbag Thrown*

Amount of People

8 · 6 · 4 · 2

1.5 · 2 · 2.5 · 3.5 · 4
Distance (m)

A. Which is the furthest distance most pupils could throw?

B. How many pupils threw more than 3.5 metres?

E · 4 VF

8b. Look at the table: *Vegetables Planted*

	Jan	Feb	Mar
Onions	23	32	43
Garlic	36	15	13
Cabbage	12	8	4

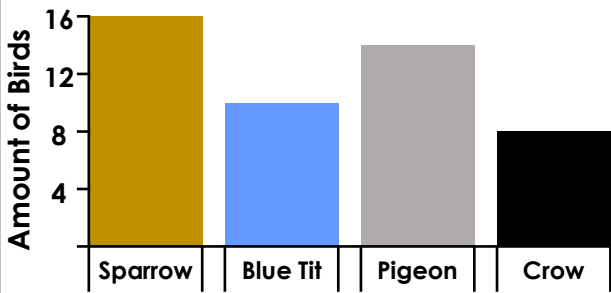A. How much garlic was planted in February?

B. In which month were the most vegetables planted?

E · 4 VF

Interpret Charts

9a. Look at this bar graph:
Birds in the Garden

Present the information as a tally chart.

Sparrow			

4 VF

9b. Look at this bar graph:
Kitchen Veg Order

Present the information in the table.

Carrots			
50			

4 VF

10a. Think of at least 3 questions to ask about the table: *Parents' Age*

Calculate the answers to your questions.

	23 – 30	30 – 35	35 – 40	40+
Year One	10	12	7	–
Year Two	21	–	6	5
Year Three	6	7	9	13

4 VF

10b. Think of at least 3 questions to ask about the table: *Jobs for Pocket Money*

Calculate the answers to your questions.

	Y3	Y4	Y5
Tidy Room	28	30	32
Ironing	10	15	25
Vacuuming	18	23	32

4 VF

11a. Use the information in the table to create a bar chart.

Money saved

Jan	Feb	Mar
£3	£9	£12
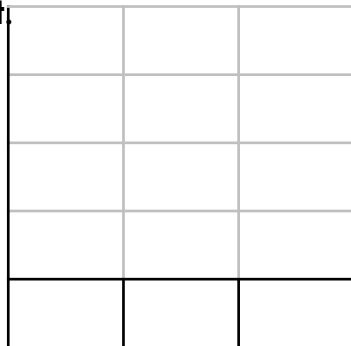
4 VF

11b. Use the information in the table to create a pictogram.

Steps Taken in 1000s

M	T	W	T	F
8	9	10	12	9
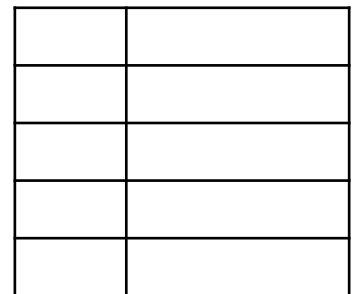
4 VF

12a. Look at the bar chart:
Audience Members
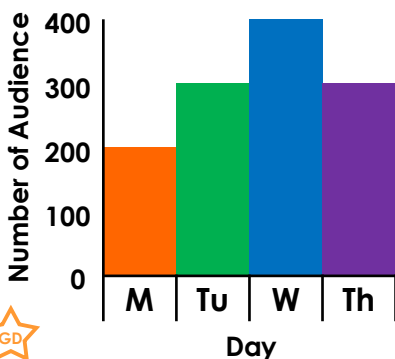
A. How many people were in the audience on Wednesday?

B. Which days had more than 250 people in the audience?

4 VF

12b. Look at the tally chart: *Votes Cast*

4pm – 5pm	‖‖‖ ‖‖‖ ‖‖‖ ‖‖‖ ‖‖
5pm – 6pm	‖‖‖ ‖‖‖ ‖‖‖ ‖‖‖ ‖‖‖ ‖
6pm – 7pm	‖‖‖ ‖‖‖ ‖‖‖ ‖‖‖‖ ‖

A. How many people voted before 5pm?

B. How else could you present this information?

4 VF

Varied Fluency
Interpret Charts

Varied Fluency
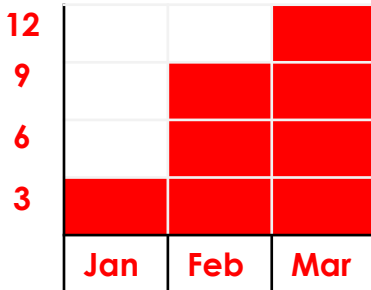## Interpret Charts

Developing
1a. Dog – 6, fish – 3, snake – 1
2a. Various answers, for example: How much is each picture worth?
3a. red – 3 more images, blue – 5 more images
4a. drama

Expected
5a. truck 1 – 20k, truck 2 – 30km, truck 4 – 40km
6a. Various answers, for example: How many people have toast for breakfast?
7a. goats – bar up to 6, sheep – bar up to 4, pigs – bar up to 2
8a. A. 2.5 m B. 6

Greater Depth
9a. sparrow – 16, blue tit – 10, pidgeon – 14, crow – 8
10a. Various answers, for example: Which year group has the most parents over 30?
11a. Children's scales may vary which will impact on their answer.

12			
9			
6			
3			
	Jan	**Feb**	**Mar**

12a. A. Monday B. 400 C. Tuesday, Wednesday and Thursday

Developing
1b. 1 – 2, 2 – 3, 3 – 4
2b. Various answers, for example: Which is the most popular sport?
3b. drum – 4 more images, yoyo – 2 more images, teddy – 5 more images
4b. February

Expected
5b. oak – 28, holly – 30, rowan – 32
6b. Various answers, for example: How many more people have red cars than silver?
7b. Walk – bar up to 10, swim – bar up to 30, museum – bar up to 50
8b. A. 15 B. January.

Greater Depth
9b. carrots – 50, onions – 75, garlic – 12, peas - 75
10b. Various answers, for example: How many children in Y3 iron for their pocket money?
11b. Children's picture choice and value may vary which will impact on their answer.

Mon	4 images
Tues	4.5 images
Wed	6 images
Thurs	7 images
Fri	4.5 images

1 image = 2 steps

12b. A. 23 B. 5pm – 6pm C. This information could also be presented in a bar chart or pictogram.

classroomsecrets.co.uk
Varied Fluency – Interpret Charts ANSWERS