

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 4 Statistics](#) resources.

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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	








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Interpret Charts

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



VF




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

Cherry	
Banana	
Mango	



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

Tennis	
Football	
Basketball	






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

	4
	2
	6



each image = 1

		
Red	Pink	Blue






VF

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

	5
	3
	6



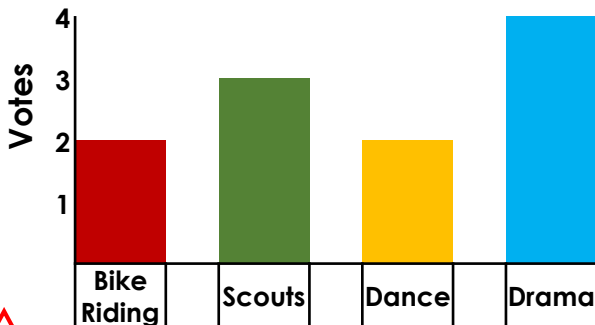
each image = 1

		
drum	yoyo	teddy



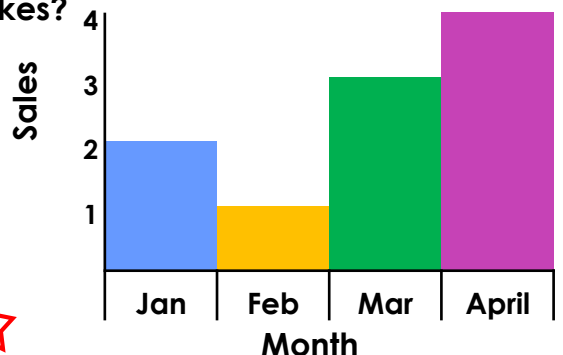
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4a. Look at the bar chart: *Y4 Hobbies*
Which hobby is most popular?



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

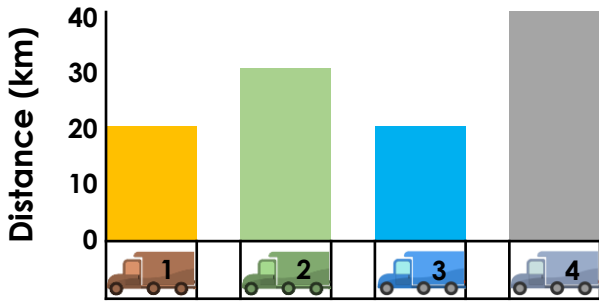


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Interpret Charts

5a. Look at this bar chart:

Distance Travelled



Fill in the blanks in the table below.

Truck 1	Truck 2	Truck 3	Truck 4
		20km	

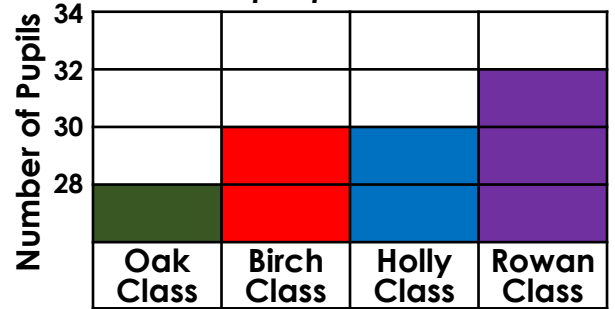


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Interpret Charts

5b. Look at this block graph:

Pupils per class



Fill in the blanks in the table below.

Oak	Birch	Holly	Rowan
	30		



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

Breakfast

Cereal	
Fruit & Yoghurt	
Toast	



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

Car Colour

Black	
Silver	
Red	

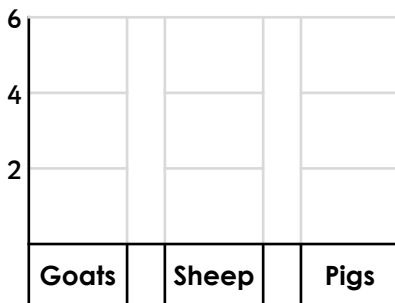


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7a. Use the information in the table to create a bar chart:

Livestock

Goats	
Sheep	
Pigs	



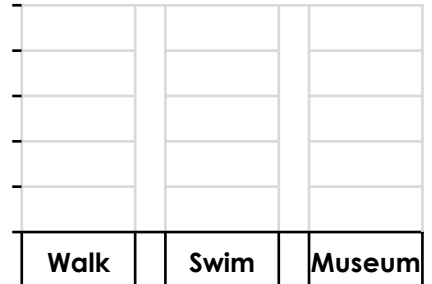
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7b. Use the information in the table to create a bar chart:

Holiday Activities

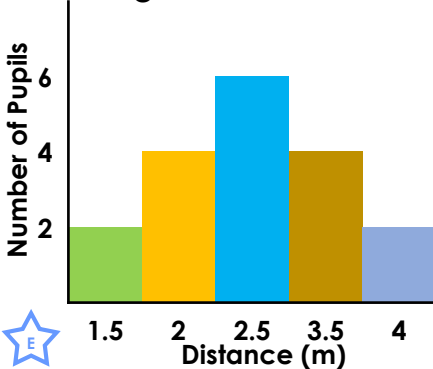
Hint: Remember to add a scale.

Walk	10
Swim	30
Museum	50



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



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

B. How many pupils threw 3.5 metres or more?



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

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

A. How many garlic bulbs were planted in February?

B. In which month were the most vegetables planted?

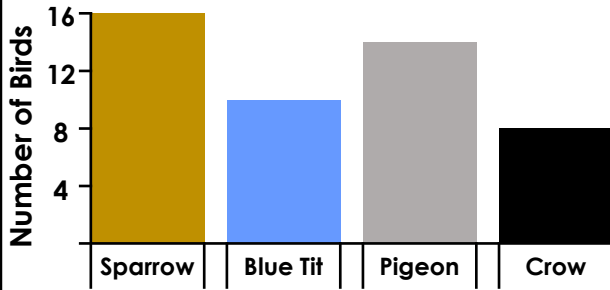


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Interpret Charts

9a. Look at this bar chart:

Birds in the Garden



Present the information as a tally chart.

Sparrow	Blue Tit	Pigeon	Crow



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Interpret Charts

9b. Look at this bar chart:

Kitchen Veg Order



Present the information in the table.

Carrots	Onions	Garlic	Peas
50			



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

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



Work out the answers.

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

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



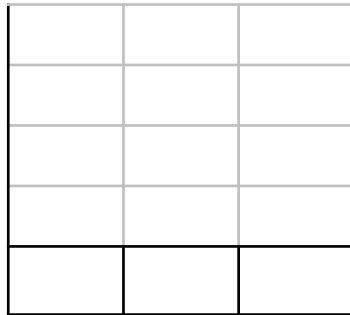
Work out the answers.

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

Money saved

Jan	Feb	Mar
£3	£9	£12

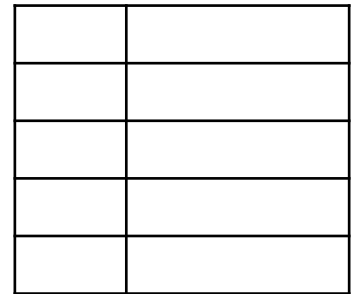


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11b. Use the information in the table to create a pictogram.

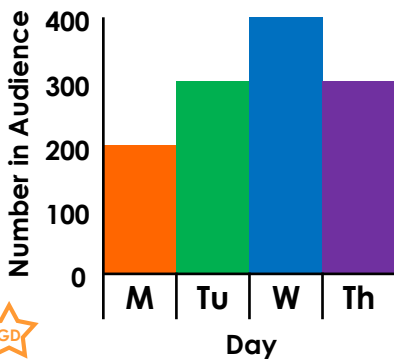
Steps Taken in 1,000s

M	T	W	T	F
8	9	10	12	9



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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?



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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?



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Varied Fluency Interpret Charts

Developing

- 1a. Dog – 6, fish – 3, snake – 1
 2a. Various answers, for example:
 What is the value of each picture?
 3a. red – 3 more images, blue – 5 more images
 4a. drama

Expected

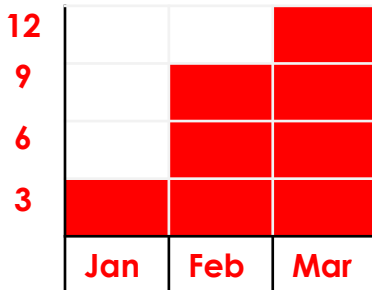
- 5a. truck 1 – 20k, truck 2 – 30km, truck 4 – 40km
 6a. Various answers, for example: How many people have toast for breakfast?
 7a. goats – bar up to 6, sheep – bar up to 4, pigs – bar up to 2
 8a. A. 2.5m B. 6

Greater Depth

9a.

Sparrow	Blue Tit	Pigeon	Crow
			

- 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.



- 12a. A. 400 B. Tuesday, Wednesday and Thursday

Varied Fluency Interpret Charts

Developing

- 1b. Size 1 – 2, Size 2 – 3, Size 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	Onions	Garlic	Peas
50	75	12	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. 1 image = 2 steps

Mon	4 images
Tues	4.5 images
Wed	5 images
Thurs	6 images
Fri	4.5 images

- 12b. A. 23 B. This information could also be presented in a bar chart or pictogram.