

Lesson 4 – Statistics – Draw Pictograms

NC Objective:

Interpret and construct simple pictograms, tally charts, block diagrams and simple tables

Resources needed:

Differentiated Sheets
Teaching Slides

Vocabulary:

Pictogram, data, represent, horizontally, vertically, symbol

Children use tally charts to produce pictograms. They build pictograms using concrete apparatus such as counters or cubes then move to drawing their own pictures. They need to be able to complete missing column or rows. They should use the same picture to represent all the data in the pictogram and line this up carefully. It is important that children see pictograms both horizontally and vertically.

Key Questions:

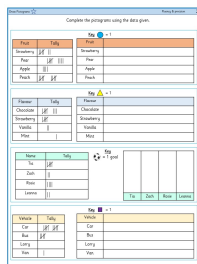
How do you know how many images to draw?

What is the same and what is different about these two pictograms? (same data but shown horizontally and vertically) Which pictogram is easier to read? Why?

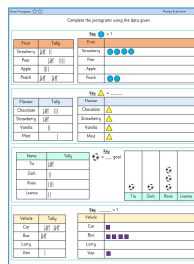
What simple symbol could we draw to represent the data?

Why did you choose this?

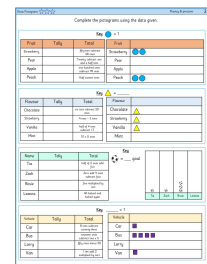
★ Working Towards



★★ Working Within



★★★ Greater Depth



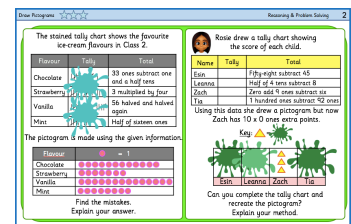
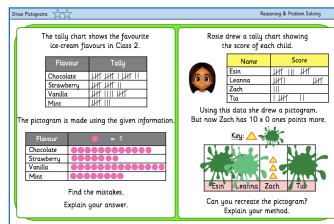
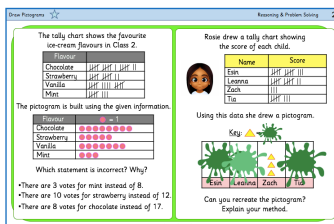
Children complete the information separately on the pictograms and use the same picture to represent all the data in the pictogram and line this up carefully.

Children complete missing column or rows and use the same picture to represent all the data in the pictogram and line this up carefully.

Children complete missing columns or rows and use the same picture to represent all the data in the pictogram and line this up carefully.

On this sheet, they have to work out the number needed for the tally chart, which is represented complex words and number sentences.

Reasoning & Problem Solving



Tue 26th Maths

Complete the pictograms using the data given.

Key  = 1

Fruit	Tally
Strawberry	
Pear	
Apple	
Peach	

Fruit	
Strawberry	
Pear	
Apple	
Peach	

Key  = 1

Flavour	Tally
Chocolate	
Strawberry	
Vanilla	
Mint	

Flavour	
Chocolate	
Strawberry	
Vanilla	
Mint	

Key  = 1 goal

Name	Tally
Tia	
Zach	
Rosie	
Leanna	

Tia	Zach	Rosie	Leanna

Key  = 1

Vehicle	Tally
Car	
Bus	
Lorry	
Van	

Vehicle	
Car	
Bus	
Lorry	
Van	

Complete the pictograms using the data given.

Fruit	Tally
Strawberry	
Pear	
Apple	
Peach	

Key  = 1

Fruit	
Strawberry	      
Pear	       
Apple	   
Peach	        

Flavour	Tally
Chocolate	
Strawberry	
Vanilla	
Mint	

Key  = 1

Flavour	
Chocolate	       
Strawberry	    
Vanilla	 
Mint	

Name	Tally
Tia	
Zach	
Rosie	
Leanna	

Key  = 1 goal

    	 	   	 
Tia	Zach	Rosie	Leanna

Vehicle	Tally
Car	
Bus	
Lorry	
Van	

Key  = 1

Vehicle	
Car	       
Bus	    
Lorry	
Van	

Tue 26th Maths

Complete the pictograms using the data given.

Key  = 1

Fruit	Tally
Strawberry	
Pear	
Apple	
Peach	

Fruit	
Strawberry	   
Pear	
Apple	
Peach	 

Key  = _____

Flavour	Tally
Chocolate	
Strawberry	
Vanilla	
Mint	

Flavour	
Chocolate	
Strawberry	
Vanilla	
Mint	

Key

 = ____ goal

Name	Tally
Tia	
Zach	
Rosie	
Leanna	

		  	
Tia	Zach	Rosie	Leanna

Key _____ = 1

Vehicle	Tally
Car	
Bus	
Lorry	
Van	

Vehicle	
Car	
Bus	   
Lorry	
Van	



Complete the pictograms using the data given.

Key  = 1

Fruit	Tally
Strawberry	
Pear	
Apple	
Peach	

Fruit	
Strawberry	      
Pear	       
Apple	   
Peach	        

Key  = 1

Flavour	Tally
Chocolate	
Strawberry	
Vanilla	
Mint	

Flavour	
Chocolate	       
Strawberry	    
Vanilla	 
Mint	

Key  = 1 goal

Name	Tally
Tia	
Zach	
Rosie	
Leanna	

    		   	 
Tia	Zach	Rosie	Leanna

Key  = 1

Vehicle	Tally
Car	
Bus	
Lorry	
Van	

Vehicle	
Car	        
Bus	    
Lorry	
Van	



Tue 26th Maths

Complete the pictograms using the data given.

Key  = 1

Fruit	Tally	Total
Strawberry		fifty-two subtract 48 ones
Pear		Twenty subtract one and a half tens
Apple		one hundred ones subtract 99 ones
Peach		Half sixteen ones

Fruit	
Strawberry	 
Pear	
Apple	
Peach	 

Key  = _____

Flavour	Tally	Total
Chocolate		six tens subtract 50 ones
Strawberry		4 tens – 3 tens
Vanilla		half of 4 tens subtract 17
Mint		10 x 0 ones

Flavour	
Chocolate	
Strawberry	
Vanilla	
Mint	

Name	Tally	Total
Tia		half of 2 ones add five
Zach		Zero add 9 ones subtract four
Rosie		five multiplied by one
Leanna		40 halved and halved again

Key



= ____ goal

		  	
Tia	Zach	Rosie	Leanna

Key _____ = 1

Vehicle	Tally	Total
Car		8 tens subtract seventy-three
Bus		eighteen ones subtract two x 5
Lorry		fifty ones minus 50
Van		1 ten add the product 2 and zero

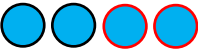
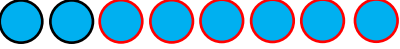
Vehicle	
Car	
Bus	   
Lorry	
Van	



Complete the pictograms using the data given.

Key  = 1

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Strawberry		fifty-two subtract 48 ones
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Peach		Half sixteen ones

Fruit	
Strawberry	
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Chocolate	
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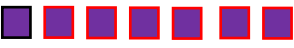
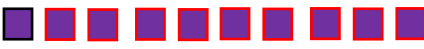
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Tia	Zach	Rosie	Leanna

Key  = 1

Vehicle	Tally	Total
Car		8 tens subtract seventy-three
Bus		eighteen ones subtract two x 5
Lorry		fifty ones minus 50
Van		1 ten add the product 2 and zero

Vehicle	
Car	
Bus	
Lorry	
Van	

The tally chart shows the favourite ice-cream flavours in Class 2.

Flavour	
Chocolate	
Strawberry	
Vanilla	
Mint	

The pictogram is built using the given information.

Flavour	 = 1
Chocolate	
Strawberry	
Vanilla	
Mint	

Which statement is incorrect? Why?

- There are 3 votes for mint instead of 8.
- There are 10 votes for strawberry instead of 12.
- There are 8 votes for chocolate instead of 17.

The second statement: There are 5 votes for strawberry instead of 12

The third statement: There are 8 votes for chocolate instead of 17.

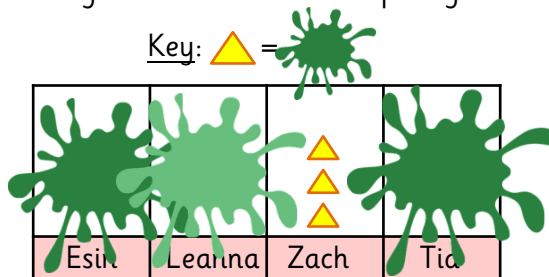
Rosie drew a tally chart showing the score of each child.



Name	Score
Esin	
Leanna	
Zach	
Tia	

Using this data she drew a pictogram.

Key:  =



Can you recreate the pictogram?

Explain your method.

The pictogram shows that Zach has 3 points according to the tally chart, so the key is = 1

Esin: 13; Leanna: 12; Tia: 8

The tally chart shows the favourite ice-cream flavours in Class 2.

Flavour	
Chocolate	
Strawberry	
Vanilla	
Mint	

The pictogram is built using the given information.

Flavour	 = 1
Chocolate	
Strawberry	
Vanilla	
Mint	

Which statement is incorrect? Why?

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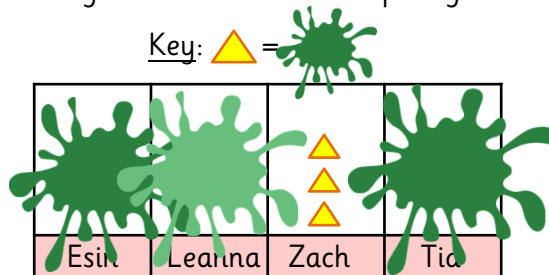
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Zach	
Tia	

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The tally chart shows the favourite ice-cream flavours in Class 2.

Flavour	Tally
Chocolate	
Strawberry	
Vanilla	
Mint	

The pictogram is made using the given information.

Flavour	 = 1
Chocolate	
Strawberry	
Vanilla	
Mint	

Find the mistakes.

Explain your answer.

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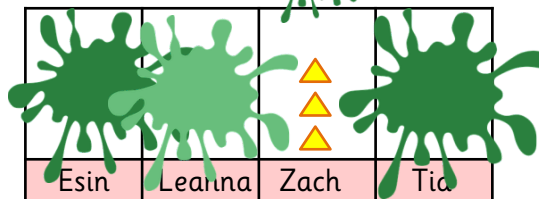
Rosie drew a tally chart showing the score of each child.



Name	Score
Esin	
Leanna	
Zach	
Tia	

Using this data she drew a pictogram. But now Zach has 10 x 0 ones points more.

Key:  = 



Can you recreate the pictogram?
Explain your method.



The tally chart shows the favourite ice-cream flavours in Class 2.

Flavour	Tally
Chocolate	
Strawberry	
Vanilla	
Mint	

The pictogram is made using the given information.

Flavour	 = 1
Chocolate	
Strawberry	
Vanilla	
Mint	

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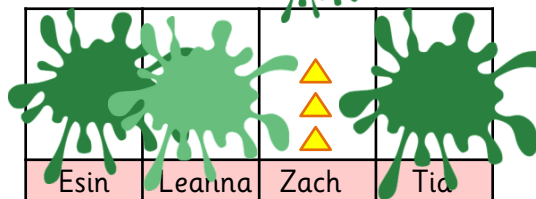
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Chocolate	
Strawberry	
Vanilla	
Mint	

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Flavour	 = 1
Chocolate	
Strawberry	
Vanilla	
Mint	

Find the mistakes.
Explain your answer.

There are two mistakes:

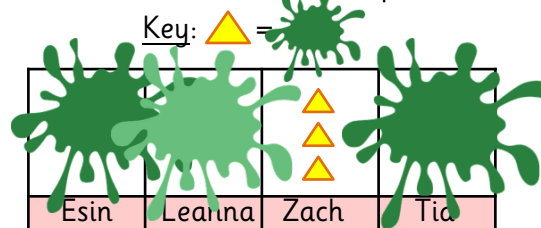
- 1) There are 12 votes for chocolate instead of 18.
- 2) There are 7 votes for strawberry instead of 12.

Rosie drew a tally chart showing the score of each child.



Name	Score
Esin	
Leanna	
Zach	
Tia	

Using this data she drew a pictogram.
But now Zach has 10 x 0 ones points more.



Can you recreate the pictogram?
Explain your method.

The pictogram shows that Zach has 3 points according to the tally chart, so the key is  = 1
Zach's points didn't change because 10 x 0 is equal to 0.
Esin: 13; Leanna: 11; Zach: 3; Tia: 8



The tally chart shows the favourite ice-cream flavours in Class 2.

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Chocolate	
Strawberry	
Vanilla	
Mint	

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Chocolate	
Strawberry	
Vanilla	
Mint	

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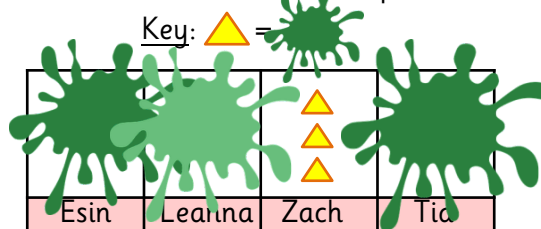
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Zach	
Tia	

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The stained tally chart shows the favourite ice-cream flavours in Class 2.

Flavour	Tally	Total
Chocolate		33 ones subtract one and a half tens
Strawberry		3 multiplied by four
Vanilla		56 halved and halved again
Mint		Half of sixteen ones

The pictogram is made using the given information.

Flavour	= 1
Chocolate	
Strawberry	
Vanilla	
Mint	

Find the mistakes.
Explain your answer.

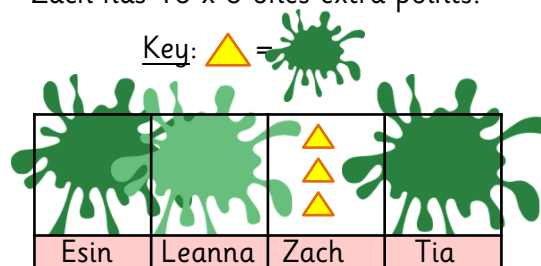
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Rosie drew a tally chart showing the score of each child.

Name	Tally	Total
Esin		Fifty-eight subtract 45
Leanna		Half of 4 tens subtract 8
Zach		Zero add 9 ones subtract six
Tia		1 hundred ones subtract 92 ones

Using this data she drew a pictogram but now Zach has 10 x 0 ones extra points.



Can you complete the tally chart and recreate the pictogram?
Explain your method.



The stained tally chart shows the favourite ice-cream flavours in Class 2.

Flavour	Tally	Total
Chocolate		33 ones subtract one and a half tens
Strawberry		3 multiplied by four
Vanilla		56 halved and halved again
Mint		Half of sixteen ones

The pictogram is made using the given information.

Flavour	= 1
Chocolate	
Strawberry	
Vanilla	
Mint	

Find the mistakes.
Explain your answer.

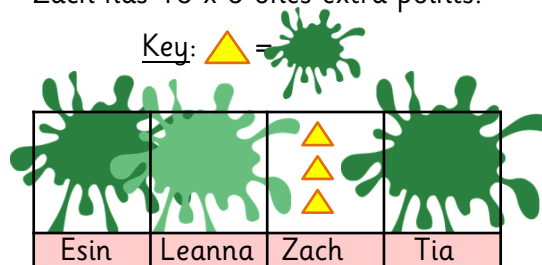
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Flavour	= 1
Chocolate	
Strawberry	
Vanilla	
Mint	

Find the mistakes.

There are two mistakes:

- 1) There are 12 votes for chocolate instead of 18.
- 2) There are 7 votes for strawberry instead of 12.

Explain your answer.

Rosie drew a tally chart showing the score of each child.

Name	Tally	Total
Esin		Fifty-eight subtract 45 13
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Zach		Zero add 9 ones subtract six 3
Tia		1 hundred ones subtract 92 ones 8

Using this data she drew a pictogram.



Key:



=

Esin	Leanna	Zach	Tia

Can you complete the tally chart and recreate the pictogram? Explain your method.

The pictogram shows that Zach has 3 points according to the tally chart, so the key is = 1

Zach's points didn't change because 10×0 is equal to 0.

Esin: 13; Leanna: 12; Zach: 3; Tia: 8



The stained tally chart shows the favourite ice-cream flavours in Class 2.

Flavour	Tally	Total
Chocolate		33 ones subtract one and a half tens 18
Strawberry		3 multiplied by four 12
Vanilla		56 halved and halved again 14
Mint		Half of sixteen ones 8

The pictogram is made using the given information.

Flavour	= 1
Chocolate	
Strawberry	
Vanilla	
Mint	

Find the mistakes.

There are two mistakes:

- 1) There are 18 votes for strawberry instead of 12.
- 2) There are 12 votes for chocolate instead of 7.

Explain your answer.

Rosie drew a tally chart showing the score of each child.

Name	Tally	Total
Esin		Fifty-eight subtract 45 13
Leanna		Half of 4 tens subtract 8 12
Zach		Zero add 9 ones subtract six 3
Tia		1 hundred ones subtract 92 ones 8

Using this data she drew a pictogram.



Key:



=

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