

Week beginning 18th May 2020

Year 2 activities – Maths

MyMaths

There will be new tasks loaded onto MyMaths.

Numbots

Have a go at Numbots this week. To login, use your TTRockstars username and password.

Lesson focus: Statistics

Statistics might sound a bit complicated, but it actually means that we will be learning how to collect and record information.

We will learn how to record information (or data) in tally charts and tables. Have you seen a tally before? You might not have realised it, but we have been practising our statistics learning throughout Year 2! Think about our classroom.... where do we practise collecting information (or data) every day? We use a tally every day to record table points in the classroom!

Data collection is really fun, and you can collect data about absolutely anything you want! It can be used in school to find out information about each other or it can be used if we vote on something. Information is collected from adults too when they vote or if a company wants to find out information in a survey, for example, most popular car models etc. Can you think of any other reasons that we might collect data?

We are also going to learn to use simple pictograms and block diagrams to show our results and begin to ask and answer questions and compare the data we have gathered.

There are lots of different activities to choose from each lesson and some extra challenges if you want to do more! Hopefully, the sun will come out and the weather will warm up again, so the mini-beasts come out for your mini-beast hunt!

Have fun! 😊

Lesson 1:

Brain Warm-up: Practise counting in 5s – you will need to know how to do this to count in a tally.

What is a tally? Watch this clip to find out how to organise data into a tally:
<https://www.bbc.co.uk/bitesize/clips/zibcd2p>

A tally chart shows information (or data) about the number of times something has happened. It also helps us to organise our data and make it easier to read. A tally is written like this:

I = 1 II = 2 III = 3 IIII = 4 **IIII = 5**
 We put a line through for 5 so that we know we have got 5 in the tally.

At school we say that we are '**closing the gate**' to help us remember to put the line through for 5.

Favourite Colour	Tally
Blue	IIII III
Red	IIII IIII II
Yellow	II
Green	III

What do you notice about the groups? Why do we use groups of 5? Why does this make counting easier? When we count, we say: **1, 2, 3, 4 and 5 closes the gate.**

Spot the Difference (see attached): What is the difference between a table and a tally chart?

Task

Practise Reading a Tally:

We can practise our **counting on** skills to count the tally.

For example, for the colour blue: **Put 5 in your head and count on 3 more - 5...6, 7, 8**

- What is the total of each of these tallies?

Favourite Colour	Tally	Total
Blue	IIII III	
Red	IIII IIII II	
Yellow	II	
Green	III	

Practise Writing a Tally: Remember to write 1, 2, 3, 4 and 5 'closes the gate'.

- **Have a go at writing these numbers in a tally:**

4 5 7 10 15 18 22 25 32

- **Ask a grown-up to write a tally for you. Can you work out what the number is?**

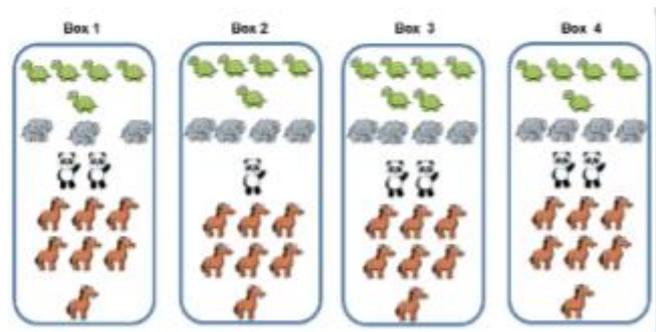
Start with small numbers and then have a go at bigger numbers as you get more confident.

Challenge Question



Dexter made a tally chart of the animals that he saw at the zoo.

Animal	Tally
	IIII
	IIII
	II
	IIII II



Which box correctly shows all the animals Dexter saw? Can you explain why the others are incorrect?

Spot the Difference!!

How is a table different to a tally chart?

Table

A table is used to record information and collect results. The information can then be used to make pictograms or block diagrams to display results clearly. A table needs to have headings to show what you are measuring or recording.

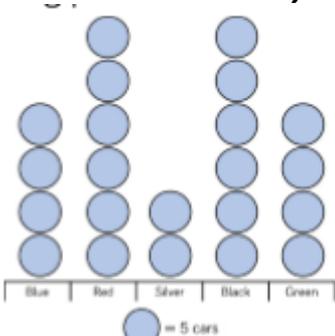
Favourite Animal	Number of Children
Dog	10
Cat	8
Snake	2
Bear	4
Horse	6
Goose	

Tally Chart

A tally chart is used for counting how many of something you are recording. 1 tally mark shows you that there is 1 item. 4 tally marks with a diagonal line through it shows you that there are 5 items. In this example, the tally marks show how many children chose each of the animals as their favourite in a survey. Making a tally chart is faster than writing out words or numbers.

Favourite Animal	Number of Children
Dog	
Cat	
Snake	
Bear	
Horse	
Goose	

Lesson 2:

<p>Brain Warm-up</p>	<p>Do you remember what a tally is? Can you remember how to write in a tally?</p> <p style="text-align: center;">Remember to write 1, 2, 3, 4 and 5 'closes the gate'.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th colspan="2" style="background-color: #d9ead3;">Class 1</th> </tr> <tr> <th style="background-color: #d9ead3;">Flavour</th> <th style="background-color: #d9ead3;">Total</th> </tr> </thead> <tbody> <tr> <td>Vanilla</td> <td> </td> </tr> <tr> <td>Chocolate</td> <td> </td> </tr> <tr> <td>Strawberry</td> <td> </td> </tr> <tr> <td>Mint</td> <td> </td> </tr> </tbody> </table> <p style="text-align: right;">How many children liked each flavour?</p>	Class 1		Flavour	Total	Vanilla		Chocolate		Strawberry		Mint	
Class 1													
Flavour	Total												
Vanilla													
Chocolate													
Strawberry													
Mint													
<p>Task 1</p>	<p>Completing a tally chart</p> <p>Read the story of The Very Hungry Caterpillar – if you have the book, that is great. I have also attached a link for an animated version of the story.</p> <p style="text-align: center;">https://www.youtube.com/watch?v=75NQK-Sm1YY</p> <ul style="list-style-type: none"> As you listen to/read the story, can you create a tally to show how much food the very hungry caterpillar ate? I have created a chart for you – see attached. Don't forget to record the total number of each food type eaten! 												
<p>Learning</p>	<p>What is a Pictogram?</p> <p>It is a chart that shows your results in pictures – each picture represents one item. It is important that the pictures are lined up carefully so that you can compare the data.</p> <p>They can be drawn horizontally.....</p> <p>Here is a pictogram to show Class 5s favourite t-shirts.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="background-color: #d9ead3;">Colour</th> <th style="background-color: #d9ead3;"></th> </tr> </thead> <tbody> <tr> <td>Blue</td> <td></td> </tr> <tr> <td>Green</td> <td></td> </tr> <tr> <td>Red</td> <td></td> </tr> <tr> <td>Purple</td> <td></td> </tr> </tbody> </table> <p style="margin-left: 20px;">Key  = 1 T-shirt</p> <p style="text-align: right;">..... or vertically.</p> 	Colour		Blue		Green		Red		Purple			
Colour													
Blue													
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Purple													
<p>Task 2</p>	<p>Recording your Results in a Pictogram</p> <p>Top Tip: Remember that each picture represents one item of food eaten.</p> <ul style="list-style-type: none"> Can you draw your results into the pictogram chart? – see attached. <i>e.g. If the hungry caterpillar ate 4 strawberries, you would need to draw 4 strawberries onto your chart.</i> 												
<p>Challenge Questions</p> <p style="text-align: center;">★</p>	<p>Once you have drawn your results into your pictogram, think about these questions:</p> <ul style="list-style-type: none"> Which food did the caterpillar eat the most / least of? Were any foods the same amount? Did the caterpillar eat more strawberries or plums? How many pieces of food did the caterpillar eat all together? How many pieces of fruit did the caterpillar eat if you add together the strawberries and the oranges? How many more oranges than pears did the caterpillar eat? 												

How much food did the very

hungry caterpillar eat?

Can you create a tally as you listen to the story?

	
	
	
	
	
	
	
	
	<u>Tally - Amount of food eaten by the hungry caterpillar</u>

Pictogram to show how much food the
very Hungry Caterpillar ate



Amount of food items

Food eaten by the hungry caterpillar

Lesson 3:

Brain Warm-up

Use the tally chart to help you complete the pictogram.

Fruit	Tally
Banana	
Grape	
Pear	
Apple	

Fruit	
Banana	
Grape	
Pear	
Apple	○ ○ ○

Key



Task

Mini-beast hunt

This lesson you are going to go on a mini-beast hunt in the garden or on a walk.

Use my example below to create your own tally chart. You can add any extra creatures to your list.

Mini-beasts	Tally	Total
Butterfly		
Ladybird		
Worm		
Snail		
Bumble bee		
Spider		

Think about where you might need to search for mini-beasts.

Don't forget to record the mini-beasts in a tally (1, 2, 3, 4, 5 'closes the gate').

When you have finished your hunt, work out the total of each mini-beast found.

If you can't get out for a hunt, you could use my results below.

Mini-beasts	Tally	Total
Butterfly		9
Ladybird		5
Worm		2
Snail		4
Bumble bee		7
Spider		3

Note: If you didn't find a particular mini-beast, don't worry... how can you still record the result on your tally chart?

Challenge Questions



Look at your results so far. Using your tally chart and total column, think about the answers to these questions:

- Which type of mini-beast did you find the most / least of?
- Were there any with an equal amount?
- Did any have a total of zero?

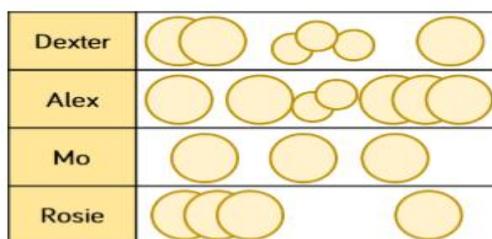
- Which was the most popular mini-beast?
- Can you order the mini-beast totals from the least to the most?
- Can you add together the smallest number and the largest number?

- Can you order the mini-beasts from the most to the least?
- How many mini-beasts did you find altogether?
- How do you work out the difference between the most and the least? Can you write a number sentence to show this?

Lesson 4:

Brain Warm-up

This pictogram shows the number of counters collected by each child. How could you improve the pictogram? Is there anything wrong with the way it has been drawn?



Learning

Pictograms – How do you create a pictogram?

Favourite Animal	Number of Children
Dog	
Cat	
Snake	
Bear	
Horse	
Goose	

1. Label each column or row – why is this useful?
2. Check that your pictures match the totals on your tally chart.
3. If you found zero spiders, would you draw a picture in this column or row?
4. Remember that all the pictures need to line up – why is this important?



The most popular colour sweet is green.

Do you agree with Eva? Explain what she did wrong.

Task

Recording your mini-beast results in a pictogram

Do you remember making a pictogram for the food that the very hungry caterpillar ate?

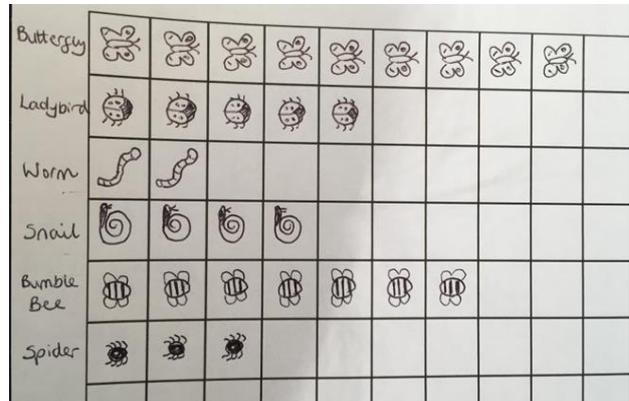
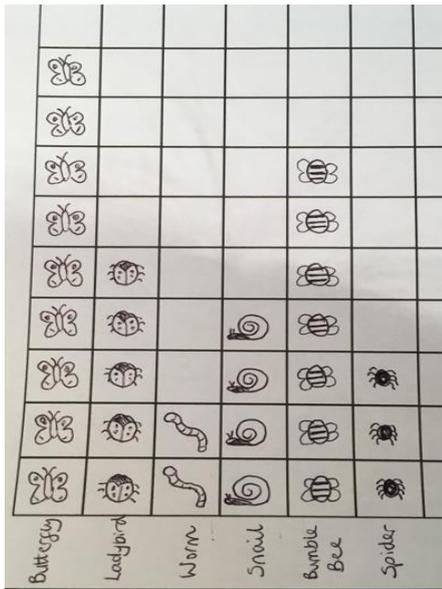
Today, you are going to have a go at drawing your own **pictogram** to show the results of your mini-beast hunt.

- You will need: a ruler, pencil and paper (Top tip: Squared paper will help you line it up!)
- There are squared paper templates below which you could print out to help you.

I did my own mini-beast hunt and have made my own pictogram so that you can see how to set it out. You could draw it **vertically** or **horizontally**.

- Remember you are drawing one picture for each mini-beast you saw.

Example Pictograms:



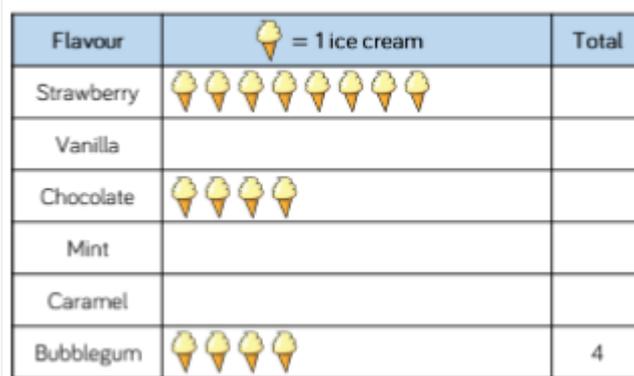
Challenge Question



If you would like an extra challenge, see if you can solve the problem below:

Use the clues to help you complete the pictogram.

- More caramel was sold than bubblegum flavour; but less than strawberry flavour.
- Mint was the most popular flavour.
- Vanilla was the least popular.



Can you find more than one way to complete the pictogram?

Lesson 5:

Starter

- Practise counting in 2s, 3s, 5s and 10s – how high can you go?!

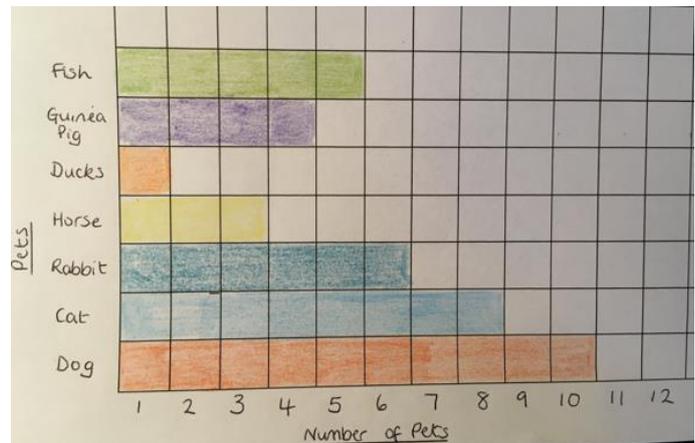
Learning

What is a Block Diagram?

A block diagram works in the same way as a pictogram, but instead of drawing pictures, you colour blocks to represent an amount. You will need to use what you already know about number lines (you practised these last week) to read the scale on the chart and work out what each block represents.

- Results and information are **clearly displayed**.
- **One block represents 1 item.**
- It is quicker to compare results using a block diagram than a table or a tally chart.
- Each side of the block diagram is called an **axis**.
 - ~ What you counted goes along the bottom (horizontal)
 - ~ The numbers go up the side (vertical).

Note: Like the pictogram, the block diagram can also be drawn the other way around with the numbers along the bottom and the items you counted up the side.



1 block = 1 item.

Task

Creating a Block Diagram

If we were in school, we would have taken a vote on our favourite African animal to use as our data. Instead, I have created a tally chart with information from 26 pupils.

Can you create a block diagram to show the data?

Top Tips:

- **Don't forget to use a ruler!**
- **Squared paper will help you.**
- **1 block = 1 animal.**
- **Count the tally carefully.**
- **Colour your blocks to make them easy to read.**

<u>African Animals</u>	<u>Tally</u>
Giraffe	
Elephant	
Lion	
Leopard	
Hyena	0
Zebra	
Crocodile	
Ostrich	

If you want to collect your own data about something else and create your own block diagram, you are more than welcome!

Challenge Questions



Look at your block diagram to help you answer these questions:

- Which type of animal had the most votes? How many were there?
- Which had the least votes? How many were there?
- Were there any animals with the same amount of votes?
- Did any have a total of zero votes?
- If you add the giraffe and zebra votes, how many will there be?

- Which was the most popular animal?
- Which animal had the fewest votes?
- Can you order the animals from the smallest to the greatest number of votes?
- Can you add together the smallest number and the largest number?
- Were there more votes for lions or giraffes?
- If you added the giraffe and elephant votes, how many would there be? Can you write this in a number sentence?

- Can you order the animals from the greatest to the fewest votes?
- How many votes were taken altogether?
- What is the difference between the elephant and the crocodile votes? Can you write a number sentence to show this?
- What is the total number of votes for the giraffe, elephant, lion and leopard? Can you write this in a number sentence?
- How many more votes were there for elephants, compared to lions?

Can you think of any more questions you could ask or facts you could find out using your data?

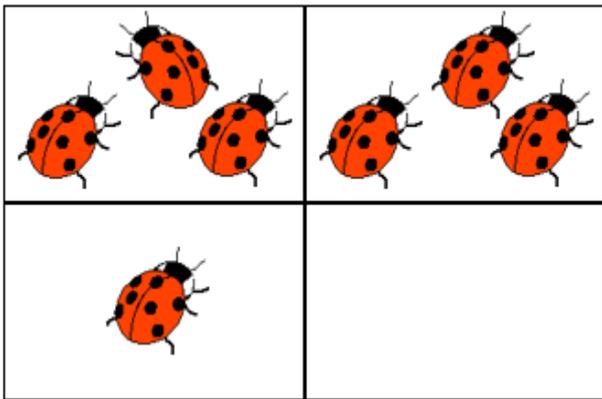
★ If you would like an extra 'super' challenge, have a look at the problem below! ★



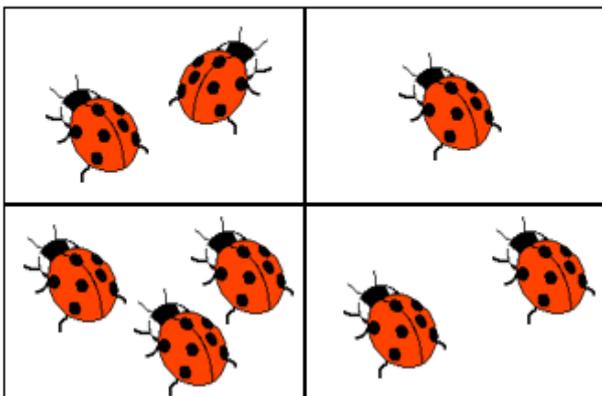
Ladybird Count

Some children were playing a game. They collected cards with ladybirds on them. These are the cards that they had at the end of the game:

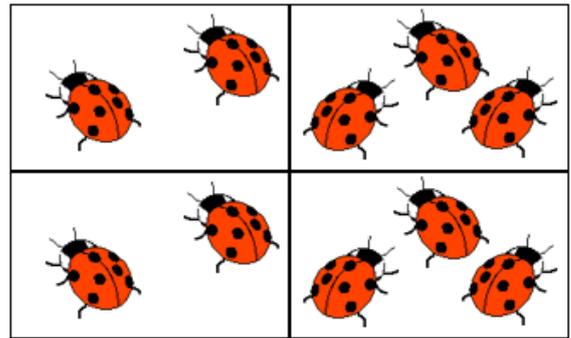
Aisha:



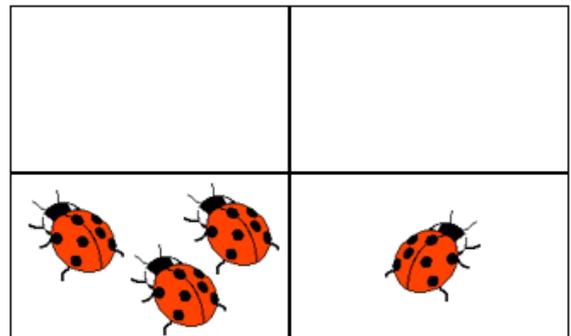
Ben:



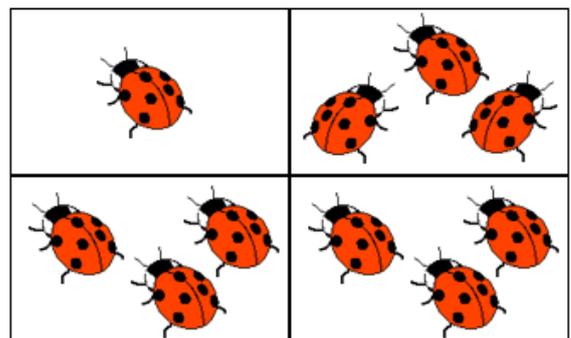
Carmel:



Danny:



Elaine:



Make a graph or picture to show how many ladybirds each child had.