

Hello Year 4!

It's now the second half of the summer term. We are so proud of your hard work with all your online learning.

We know you're giving it your best go!

We have set up your learning for the next week as daily slides for you to follow.

Please follow the instructions on each page to help you - we look forward to hearing about how you have got on!

Miss Hill and Mrs Tally

Notes for Maths Online Learning

- You will need a pencil and a piece of paper, if you have a pad you can keep working from this would be ideal.
- All MyMaths Online lessons will have unlimited availability for you to complete. We will be able to access it each day to see how you got on and if you have completed the task we have set.
- After some sessions there will be a '**extra**' activity if you would like some additional reasoning work to do.
- We will endeavor to provide lessons and activities which you will not need to print off.



St Catherine's Classroom Beliefs

- Mistakes are valuable.
- Everyone can learn maths to the highest level.
- Questions are really important.
- Depth is more important than speed.
- Maths is about making connections.

Session 1



Statistics

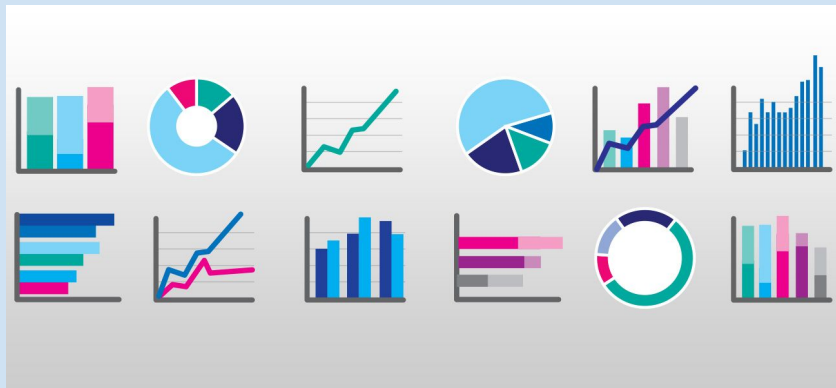
- Recap previous learning about statistics and analysing data
- Interpreting data
- Problem solving using a range of different graphical methods
 - Bar charts, pictograms, time graphs, tables



Please note, this is an area of Maths we have yet to cover in class in year 4. The children will have done data and statistics in KS1 and Year 3.

The next two weeks will focus on the Year 4 expectations for statistics.

We are going to minimise printing and formal teaching as much as possible.



Monday 1st June

RECAP!

Statistics and Data is where we can record information in a range of different charts, analyse it (examine what it means) and then be able to gather information about it.

We might want to find out how to minimise on traffic by school so we would collect raw data, finding out how people get to school, put it into a chart so we can read and interpret it easily, then from this we could find out a range of answers to lots of different questions.



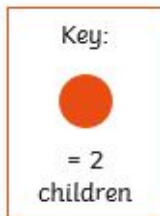
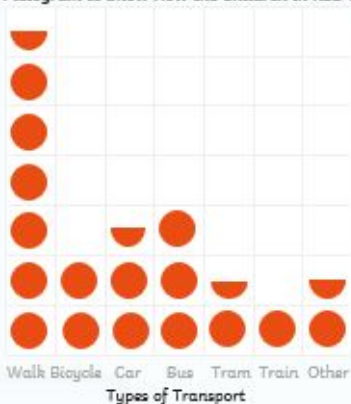
Monday 1st June

Vocabulary:

- interpret = explain the meaning of something
- Discrete data = this is when you have collected data which is a fixed number based on one thing. For example, children's eye colour, how you get to school or number of coloured pens in a pot. This is normally represented on a bar chart or block graph with spaces in-between.
- Continuous data = is results from when something has been measured, for example, heights of children in the class or measuring the height of a sunflower growing over time. This is normally represented on a line graph or histogram.

Pictograms

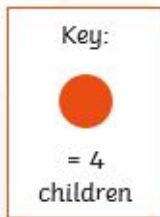
A Pictogram to Show How the Children in KS2 Travel to School



A pictogram uses pictures or symbols to represent **discrete data**.
A key shows the value represented by one picture or symbol.

It is important to identify the value of the whole picture or symbol in a pictogram, as part symbols are often used to show different values.

A Pictogram to Show How the Children in KS2 Travel to School



In both of these pictograms, the data is the same but the value of the symbol is different.

Bar Charts

Data that is counted and has no in-between value is called **discrete data**. Discrete data is usually collected in a frequency table and then presented as a bar chart.

A bar chart has a **horizontal** axis and a **vertical** axis.

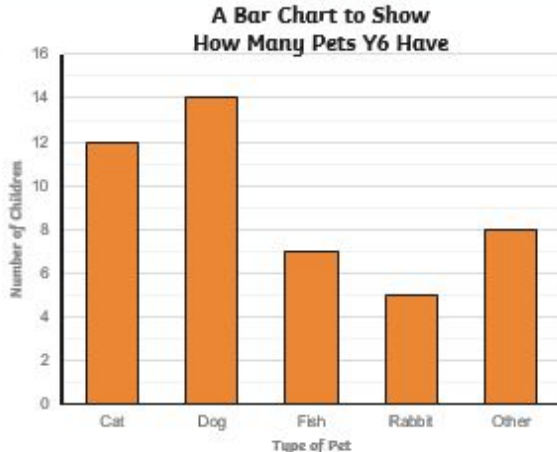
Pet	Number of Children
Cat	12
Dog	14
Fish	7
Rabbit	5
Other	8

- A bar chart must always have a **title** explaining what it shows.
- Bars must be carefully drawn to show the data.
- There must be a **gap** between each bar.
- Each bar must be the **same width**.

A **number line** is marked on the **vertical** axis. The scale of this number line is chosen based on the data range.

The **data categories** are organised on the **horizontal** axis.

Each axis must have a **label** explaining what it shows.



Line Graphs

Line graphs are used to show changes to a measurement over time. They show **continuous data**.

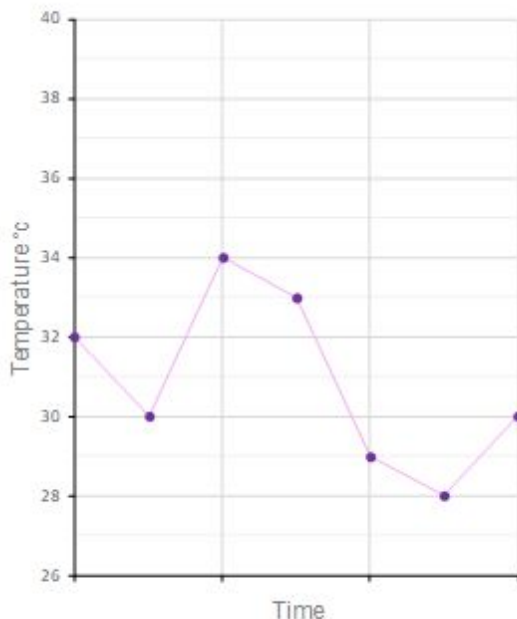
The data being measured is shown on the **vertical** axis.

The time the data is being measured over is shown on the **horizontal** axis.

Data is plotted on to a line graph in the same way as a coordinate grid. These data plots are then joined with straight lines.

We can use the line of the graph to describe general trends in the change of the measurement over time, or to find precise measurements at a given time.

A Line Graph to Show the Temperature of the Classroom

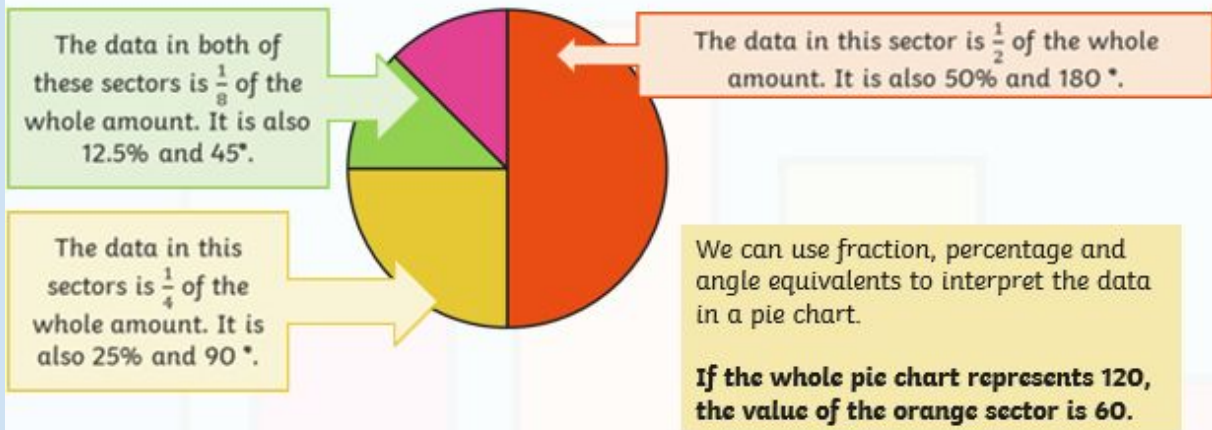


Pie Charts

Pie charts show discrete data as proportional sectors of a circle.

Every sector of a pie chart is a proportion of the whole. You can explain what each sector represents using an angle, fraction or percentage.

Being able to convert between fractions, percentages and angles is a key skill for answering questions about data presented in a pie chart.



Monday 1st June

We will be learning using MyMaths Online.
Follow the lesson and complete the activity

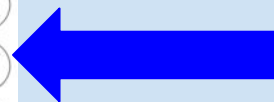
 Lesson | Interpreting data

	Chapter title
1	
2	1 Why use a graph? >
3	2 Using pictograms >
4	3 Pictogram practice >
5	4 Scaled pictograms >
6	5 Pictogram practice 2 >
7	6 Using bar charts >
8	7 Bar chart practice >
9	8 Using tables >
10	9 Tables practice >
11	10 Solving 2-step problems >
	11 Your turn! >

Objective:

- Solve simple questions using information presented in graphs and tables

We have allocated Year 3
Interpreting Data as a recap of
your knowledge of statistics and
data handling



Monday 1st June

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Follow the lesson and complete the activity

 Online Homework | Interpreting data Menu

Q1 Q1 – One-step questions

Look at the pictogram and answer the questions.

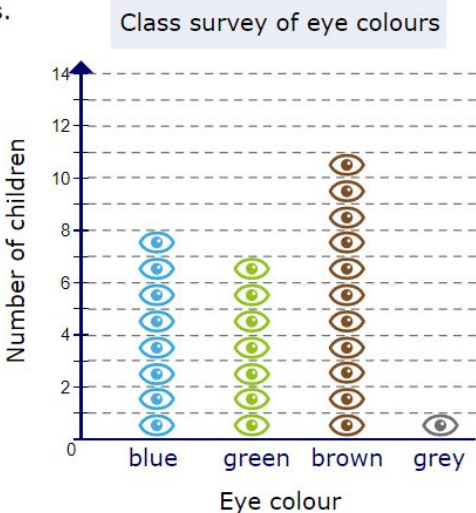
How many children have green eyes?

Q2 How many more children have blue than green eyes?

No calc

Total

Class survey of eye colours



Eye colour	Number of children
blue	8
green	7
brown	11
grey	1

Mark it

Now have a go at the
Interpreting Data activity!

We look forward to seeing
how you got on!

Good Luck!



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Session 2



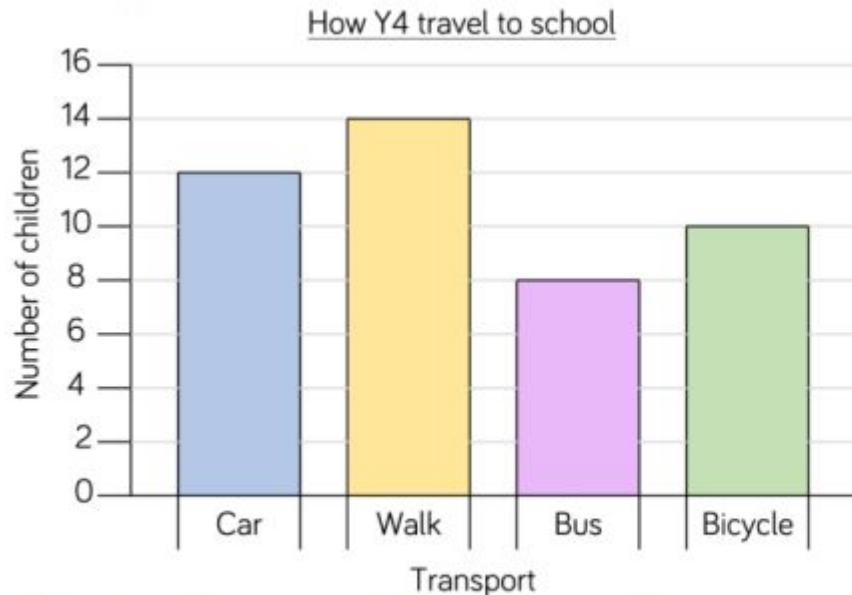
Statistics

- Recap previous learning about statistics and analysing data
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Tuesday 2nd June

Complete the table using the information in the bar chart.



Transport	Number of children
Car	
Walk	
Bus	
Bicycle	

What is the most/least popular way to get to school?

How many children walk to school?

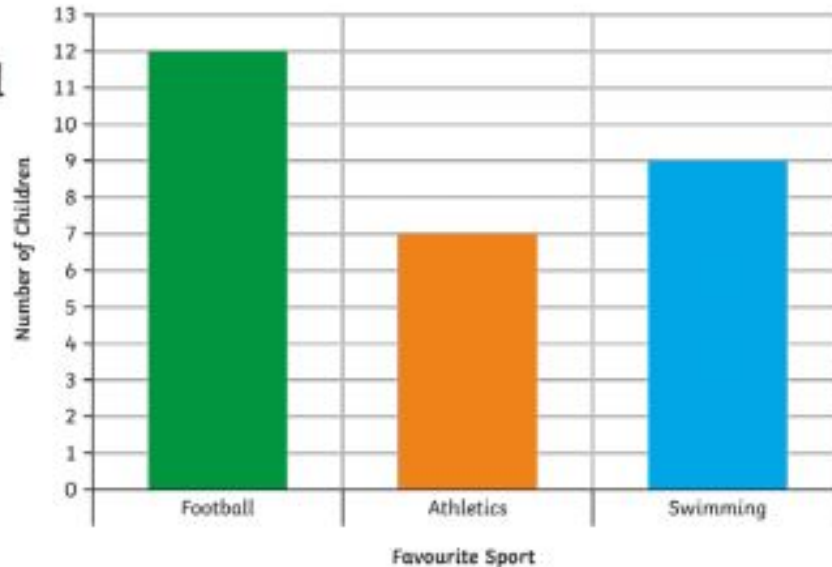
Tuesday 2nd June

a) How many children preferred athletics?

b) What is the difference in popularity between swimming and athletics?

c) How many children said football was their favourite sport?

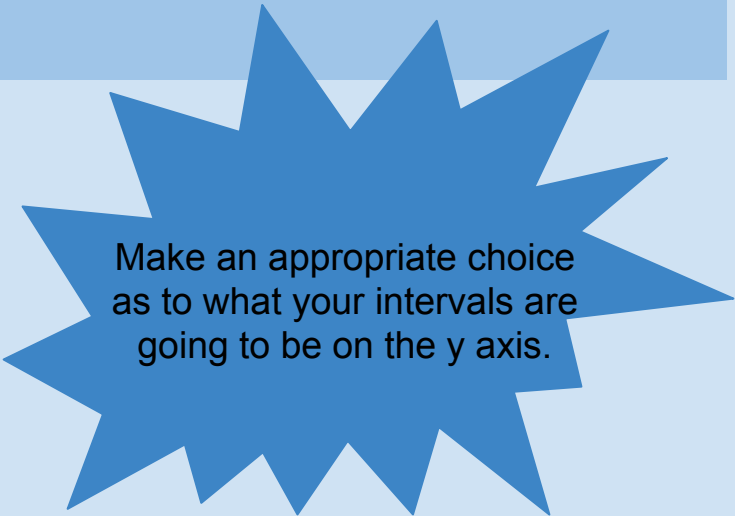
d) 30 children were meant to vote. How many didn't vote?



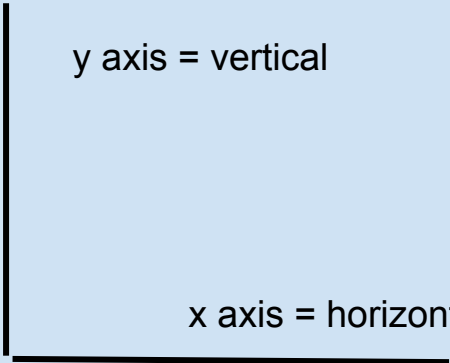
Tuesday 2nd June

Use this data to create your own bar chart. Remember to label both axes and to give your bar chart a title.

How we travel to school in Class 8	Number of votes
walk	8
school bus	6
car	10
bike	7



Make an appropriate choice as to what your intervals are going to be on the y axis.



y axis = vertical

x axis = horizontal

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Session 3



Statistics

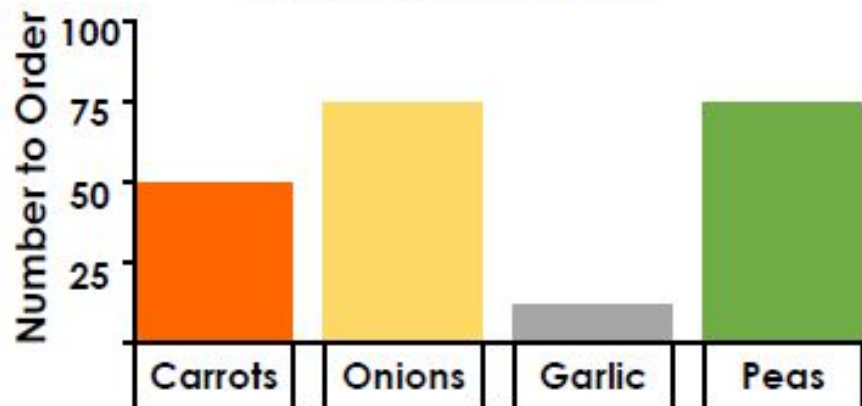
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Wednesday 3rd June

9b. Look at this bar chart:

Kitchen Veg Order



Present the information in the table.

Carrots			
50			

1. How many more onions than carrots are ordered?
2. How many peas and carrots are ordered?
3. How many vegetables are ordered altogether?

Wednesday 3rd June

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

What are you going to use to represent the numbers?

Will one symbol represent 1000?

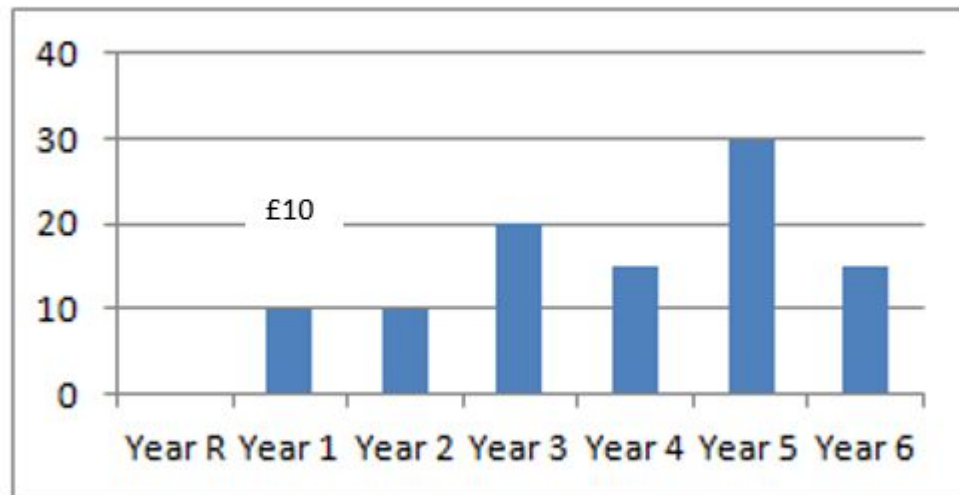
Could one symbol represent 2000?

Wednesday 3rd June

Interpret the Bar Chart sheet - in the Online pack

A bar chart to show the amount of money raised for charity in each year group.

Amount of money made (£)



Year Group

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Session 4



Statistics

- Children solve comparison, sum and difference problems using discrete data with a range of scales.
- They use addition and subtraction to answer questions accurately.



Thursday 4th June

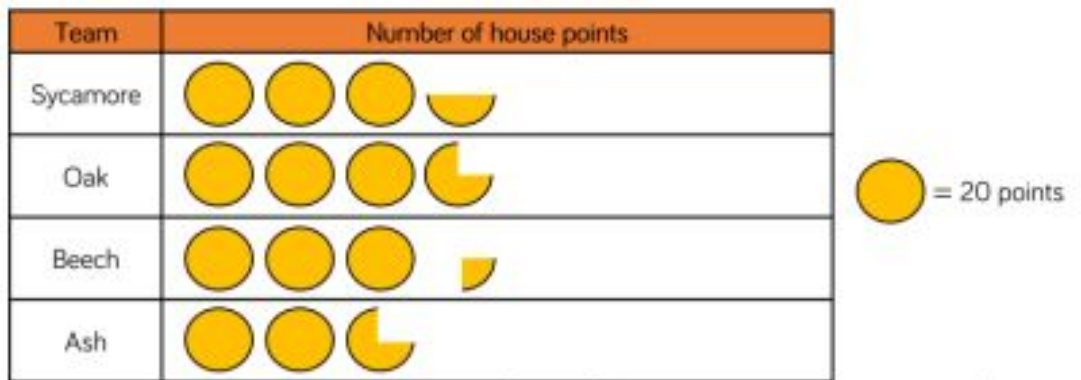
Maths Chat:

What does a full circle represent in the pictogram?

What does a half/quarter/three quarters of the circle represent?

What other questions could we ask about the pictogram?

What other questions could we ask about the table?



Activity	Number of Votes
Bowling	9
Cinema	10
Swimming	7
Ice-skating	14

Thursday 4th June

Team	Number of house points
Sycamore	
Oak	
Beech	
Ash	

 = 20 points

How many more points does the Sycamore team have than the Ash team?

How many points do Beech and Oak teams have altogether?

How many more points do Ash need to be equal to Oak?

Thursday 4th June

Activity	Number of Votes
Bowling	9
Cinema	10
Swimming	7
Ice-skating	14

How many people voted in total?

$\frac{1}{4}$ of the votes were for _____

7 more people voted for _____ than _____

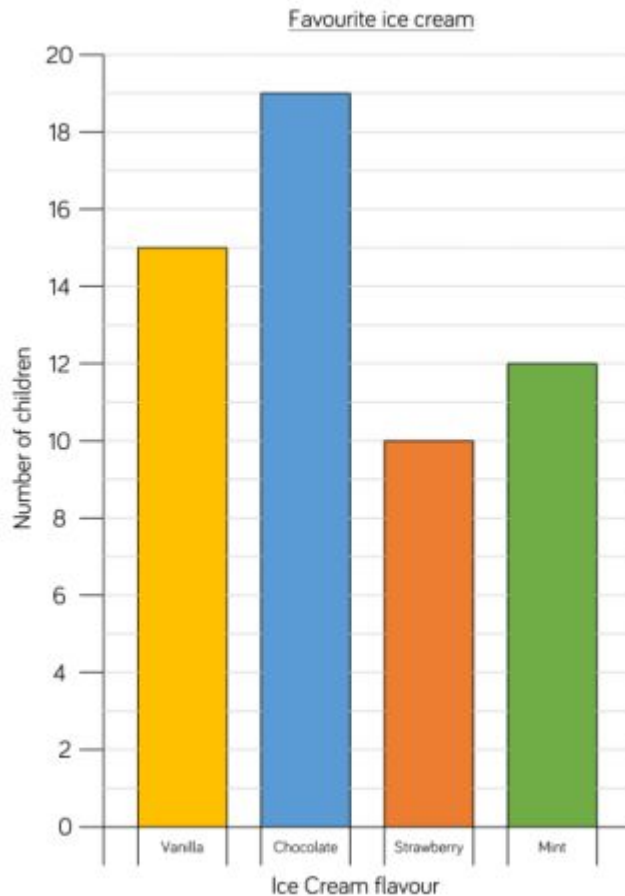
Thursday 4th June

Rosie says,



We asked 54 people altogether.

Can you spot Rosie's mistake?
How many people were asked altogether?



Thursday 4th June

True or false?

- The same number of people visited Maltings Castle as Film Land Cinema on Saturday.
- Double the number of people visited Animal World Zoo on Sunday than Saturday.
- The least popular attraction of the weekend was Primrose Park.

Attraction	Number of visitors on Saturday	Number of visitors on Sunday
Animal World Zoo	1,282	2,564
Maltings Castle	2,045	1,820
Primrose Park	1,952	1,325
Film Land Cinema	2,054	1,595

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Session 5



Statistics

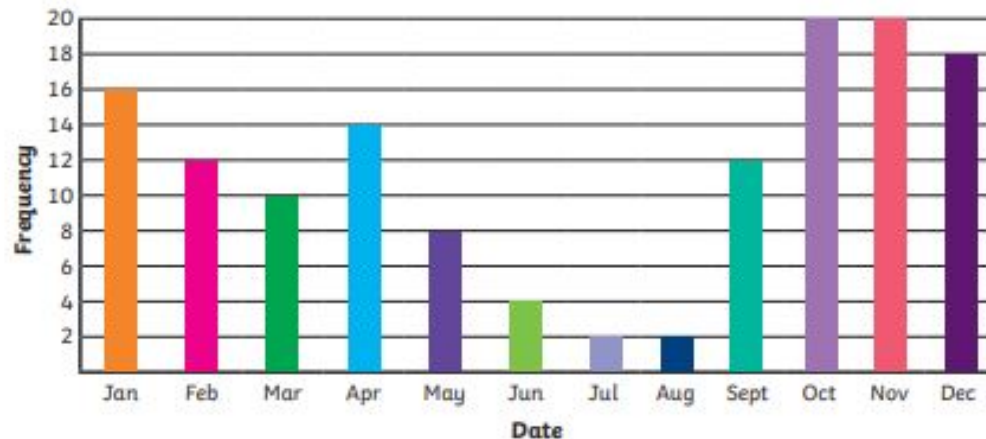
- Children solve comparison, sum and difference problems using discrete data with a range of scales.
- They use addition and subtraction to answer questions accurately.



Friday 5th June

This shows how many people visited a skiing chalet throughout the year.

How many people visited **altogether** in the **2 busiest months**?



Friday 5th June

a) How many children like apples?



b) Which is the least popular fruit?



c) How many children voted altogether?



Apple

Banana

Orange

d) Part of this pictogram is missing. 8 people voted for strawberries, 6 voted for pear and 3 voted for grapes. How many children voted altogether, including votes for apples, bananas and oranges?

Friday 5th June

Children were asked to vote for a name for their new class pet.

a) Which name won the vote?

b) Which name came second?

c) How many votes did
Stripes, Comet and Pebbles
receive altogether?

d) What is the difference in the number
of votes between the most popular and
the least popular name choices?

Name choice	Number of votes
Pebbles	6
Nemo	11
Comet	9
Bubbles	14
Stripes	4



Friday 5th June

Friday Fun Day

Have a look on this website and play some of the data handling games

<https://www.topmarks.co.uk/maths-games/7-11-years/data-handling>

I really enjoyed the Guardians of Mathematica!
Lots of different levels in all areas of maths!!

Have a lovely weekend!

Stay Safe

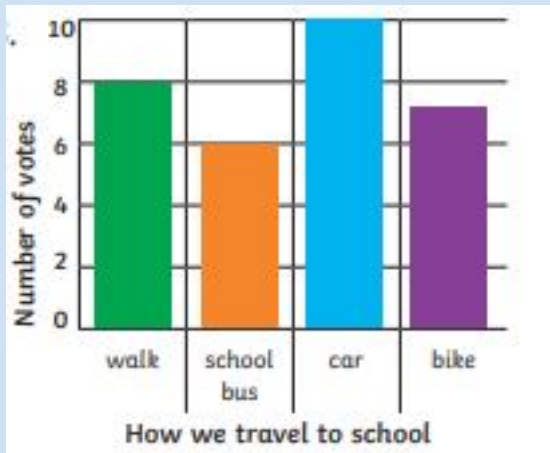


Answers

02.06.20

Car = 12, Walk = 14, Bus = 8, Bicycle = 10
Most popular = walk, least popular = bus
14 children walk to school

a) 7 b) 2 c) 12 d) 2



03.06.20

Carrots	Onions	Garlic	Peas
50	75	12	75

25, 125, 212

Yr2 = £10, Yr3 = £20, Yr4 = £15, Yr5 = £30, Yr6 = £15

Yr5

Yr1/Yr2

£5

£15

£5

£5

£40

£60

£100

£25

Answers

04.06.20

15, 140, 20

40

Cinema

7 more people voted for **Ice-skating** than **swimming**

Rosie has read the bar chart incorrectly. 15 people chose vanilla, 19 people chose chocolate, 10 chose strawberry and 12 chose mint. That means 56 people were asked altogether.

- False The Film Land Cinema had 9 more visitors than Maltings Castle • True 1,282 doubled is 2,564 • True Animal World Zoo - 3,846 Maltings Castle - 3,865 Primrose Park - 3,277 Film Land Cinema - 3,649

05.06.20

40

5

bananas and oranges

11

28

Bubbles

Nemo

19

10