

## Year 4 Maths Summer Week 1

5 days of problem solving	Day 1 Activity	Day 2 Activity	Day 3 Activity	Day 4 Activity	Day 5 Activity
<b>Factual fluency</b> (to aid fluency)	<a href="https://www.topmarks.co.uk/maths-games/daily10">https://www.topmarks.co.uk/maths-games/daily10</a> Level 4-Multiplication Mixed tables up to x12	<a href="https://www.topmarks.co.uk/maths-games/daily10">https://www.topmarks.co.uk/maths-games/daily10</a> Level 4-Multiplication Mixed tables up to x12	<a href="https://www.topmarks.co.uk/maths-games/daily10">https://www.topmarks.co.uk/maths-games/daily10</a> Level 4-Multiplication Mixed tables up to x12	<a href="https://www.topmarks.co.uk/maths-games/daily10">https://www.topmarks.co.uk/maths-games/daily10</a> Level 4-Multiplication Mixed tables up to x12	<a href="https://www.topmarks.co.uk/maths-games/daily10">https://www.topmarks.co.uk/maths-games/daily10</a> Level 4-Multiplication Mixed tables up to x12
<b>Problem/activity of the day</b>	<p>During half term, my friend baked some cupcakes.</p> <p>Monday – 80 cakes Tuesday – 60 cakes Wednesday – 40 cakes Thursday – 30 cakes Friday – 25 cakes.</p> <p>Show this information in a table and then <a href="#">draw a pictogram and a bar graph</a> to represent the information.</p> <p><i>Use the templates below to help you.</i></p>	<p>My friend is a Year 4 teacher. He collected data about the eye colour of each child in his class. He thinks it would be a good idea to represent the data using a line graph but I am not sure this is the most efficient way to represent the data. I think a bar graph would be better. What do you think? Why?</p>	<p>Look carefully at the Olympic results table. How much longer did it take to run 1500m than 100m in 2012?</p> <p>How much quicker did they run 100m in 2012 than in 1908?</p> <p>Think of your own questions for someone in your family to answer. <a href="#">Can you check if they got the answer correct?</a></p>	<p>The Olympic games have been held three times in London: 1908, 1948 and again in 2012.</p> <p>Look at the results table. What do you notice about the results over time? Is it possible to predict the results for the same races in the next Olympics? How do you know?</p>	<p>I am 9 years and 3 months old.</p> <p>How many months old am I? Can you calculate how old I am in weeks, days and hours?</p> <p>Do the same for a member of your family and record all of the calculations you make.</p>
<b>Resources you will need</b>	Paper and pencil. Types of graph support.	Paper and pencil. Types of graph support.	Olympic games results table, paper and pencil.	Olympic games results table, paper and pencil.	Paper and pencil.
<b>Tips, clues or methods to help</b>	Look at the types of graph support. Which graph would be most suitable?	Look at the types of graph support. What are the advantages or disadvantages of a line and a bar graph?	Notice how the results are given as decimals. Use a place value chart to help you subtract the numbers.	Look for patterns in the different times. Are they increasing/decreasing?	Look at the times tables support to help you convert.
<b>Checking</b>	Types of graphs checklist	No checking required	Calculator to check	Check the answer support	Check the answer support.
<b>Theme</b>	Graphs	Graphs	Time	Graphs and Time	Time

See below for: [support for each lesson](#)

**Day 1 – table and graph**

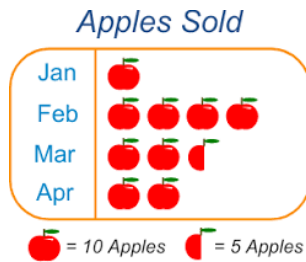
**Step 1:** Copy this table onto your paper and complete filling in the information:



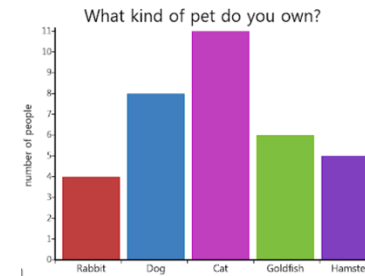
Day of the week:	Monday	Tuesday			
Number of cupcakes baked:	80				

**Step 2:** Look at the graphs below to remind yourself what a pictogram and a bar graph is:

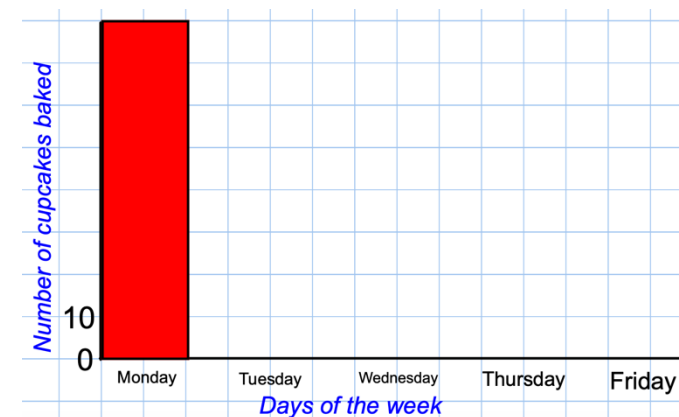
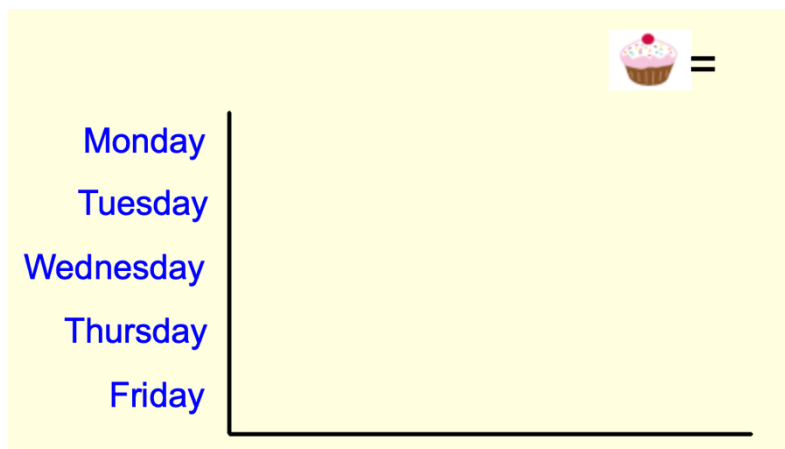
**Pictograms** use pictures to show data. They are set out in the same way as bar charts, but instead of bars they use columns of pictures to show the numbers involved. Below is an example of a pictogram:



**Bar charts/graphs** use bars to show data. You use a bar chart to compare the values of several numbers at once. Below is an example of a bar graph:



**Step 3:** Using the information in the your table, make your own pictogram and bar graph. Below is a template to help you if you need it.



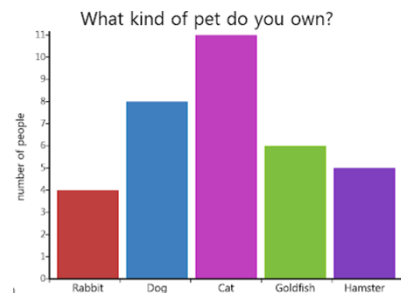
## Day 2:

Step 1: Look at the graphs below to remind yourself of the different types of graph.

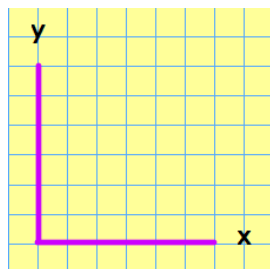
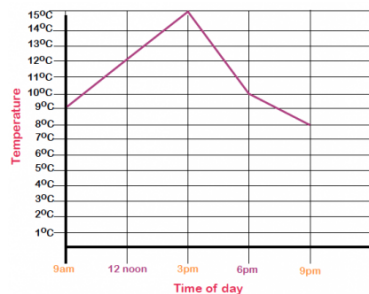
**Bar charts/graphs** use bars to show data.

You use a bar chart to compare the values of several numbers at once.

Below is an example of a bar graph:



**Line graphs/charts** uses a line to show the value of something over time.



Remember:  
y (axis) to the  
sky

Step 2: The year 4 teacher has collected data about eye colour of the pupils in his class. Would a bar graph or a line graph be a better way to show this information?


Write your answers and explain which type of graph would be best.

A bar graph would be good/bad because.....]

A line graph would be good/bad because.....



### Day 3 – Table of Olympic Races

	London - 1908	London - 1948	London - 2012
100 metres	10.8 seconds	10.3 seconds	9.63 seconds
200 metres	22.6 seconds	21.1 seconds	19.3 seconds
400 metres	50.0 seconds	46.2 seconds	43.9 seconds
800 metres	112.0 seconds	109.0 seconds	100.9 seconds
1500 metres	240.0 seconds	229.2 seconds	214.8 seconds

### Day 3 – Place value chart

Tens	Ones	Tenths	Hundredths
	●		

**Question 1: How much longer did it take to run 1500m than 100m in 2012?**

*Hint: to find the difference you need to subtract the smaller number from the larger number!*

**Question 2: How much quicker did they run 100m in 2012 than in 1908?**

*Hint: the 2012 time has got hundredths but the 1908 only has tenths. Remember that you can use 0 as a place holder to help you  
(10.8 seconds = 10.80 seconds)*

**What other questions could you ask?**


**Think of 3 others comparison questions –**  
*Hint: you could use the words 'faster' 'slower' 'quicker' 'longer' in your questions.*

1)

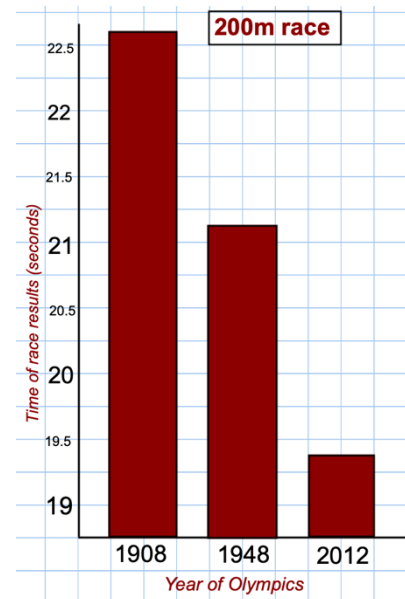
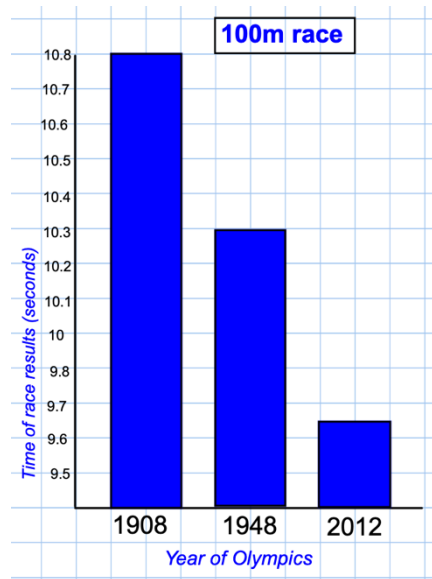
2)

3)

## Day 4 – Table of Olympic Races

	London - 1908	London - 1948	London - 2012
100 metres	10.8 seconds	10.3 seconds	9.63 seconds
200 metres	22.6 seconds	21.1 seconds	19.3 seconds
400 metres	50.0 seconds	46.2 seconds	43.9 seconds
800 metres	112.0 seconds	109.0 seconds	100.9 seconds
1500 metres	240.0 seconds	229.2 seconds	214.8 seconds

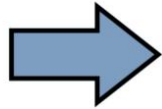
Below is a bar graphs for 100 metres and 200 metres. Do notice anything about the graphs?  
 Yes? What do you notice? Can you predict what the results for these races would be in the next Olympics?  
 No? Try drawing bar graphs for the other races and see if you spot a pattern.



## Day 5 – Converting years to months

Your 12 times table will be helpful today!

12 x 1 = 12  
12 x 2 = 24  
12 x 3 = 36  
12 x 4 = 48  
12 x 5 = 60  
12 x 6 = 72  
12 x 7 = 84  
12 x 8 = 96  
12 x 9 = 108  
12 x 10 = 120  
12 x 11 = 132  
12 x 12 = 144



1 year = 12 months  
2 years = 24 months  
3 years = 36 months

6 years = 6 x 12 months  
= 72 months  
72 + 3 = 75 months

You could record your results in a table.

Family member	Age in years and months	Age in months
e.g. my little brother Casper	6 years 3 months	75 months