Templars Primary School – Knowledge Organiser

Year 6 Statistics

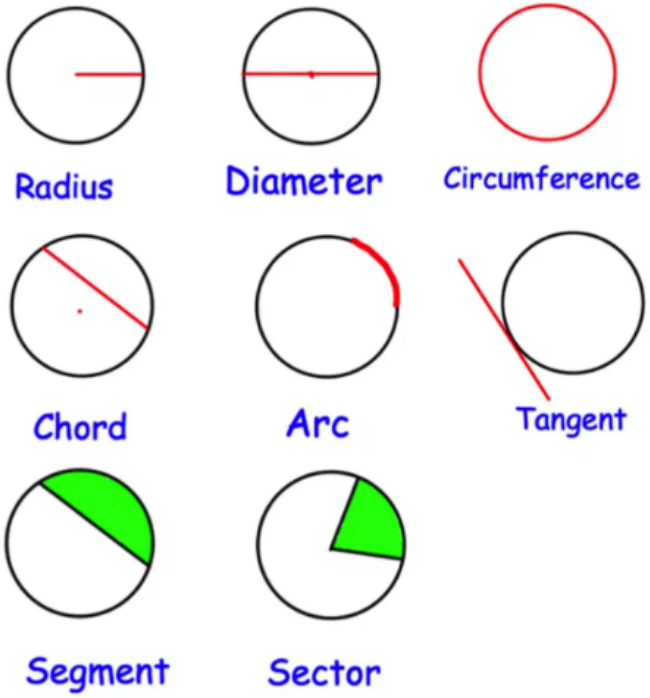
Key Vocabulary

- scales
- continuous
- discrete
- data
- frequency
- radius
- diameter
- circumference
- pie chart
- bar chart
- pictogram
- line graph
- tally chart
- interpret
- sum
- comparison/difference
- mean average
- protractor

Parts of a circle

We can **Illustrate** and **name parts of circles**, including **radius, diameter** and **circumference.**

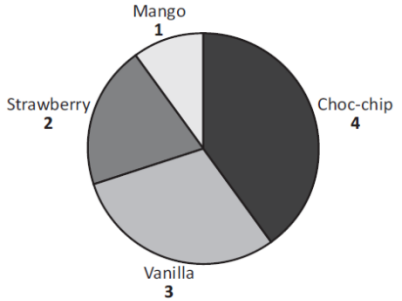
The **diameter** of a circle is **twice the radius** e.g. if the radius = 8cm then the diameter = 16cm.



Pie charts

We can **interpret** and **construct** pie charts to display data.

Favourite ice cream flavours of 10 people

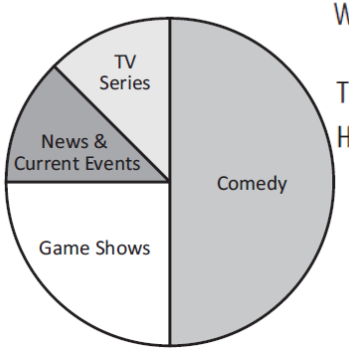


The table below summarises the information displayed on this graph.

Category	Amount	Fraction
Vanilla	3	$\frac{3}{10}$
Strawberry	2	$\frac{2}{10}$
Mango	1	$\frac{1}{10}$
Choc-chip	4	$\frac{4}{10}$
Total	10	$\frac{10}{10}$

We can use our knowledge of **fractions** and **percentages** to **interpret pie charts**

Favourite TV Shows



What fraction like game shows best? 1/4

There are 64 children in Year 6. How many prefer comedy? 32

The **whole** of the **pie chart** totals **100%.** They are another way of representing data.

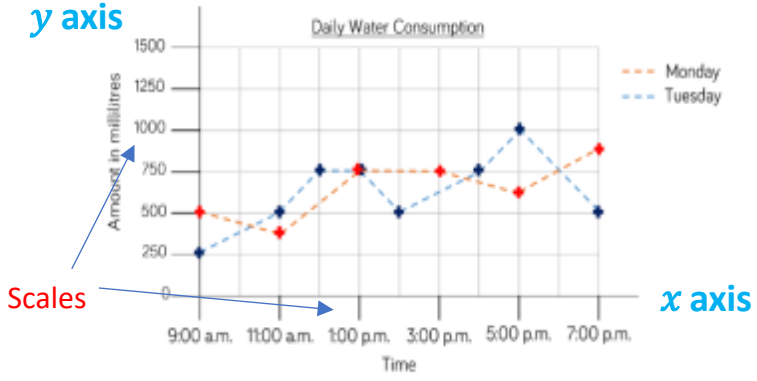
We can construct pie charts by using a **protractor** to measure angles.

Line graphs

We can **interpret** and **construct line graphs** and use these to **solve problems**.

Line graphs **represent continuous** not discrete **data**.

Here is a graph showing daily water consumption over two days.



At what times of the day was the same amount of water consumed on Monday and Tuesday? 1pm

Was more water consumed at 2 p.m. on Monday or Tuesday morning? How much more? Monday – 250ml more

- Line graphs can show **more than one set of data**
- Use a ruler to help read off the scales accurately

Mean

Calculating the mean means finding the average.

The mean can be calculated by sharing equally or using the formula:
Mean = Total ÷ number of items

To find the mean or average, add up all of the values to find the total. Divide the total by the number of values that you added together. This will give you the mean.

12	15	10	8	15

12 + 15 + 10 + 8 + 15 = 60

60 ÷ 5 = 12

The mean of this data is 12.

The mean number of goals scored in 6 football matches was 4.
Use this information to calculate how many goals were scored in the 6th match:

Match number	Number of goals
1	8
2	4
3	6
4	2
5	1
6	

As the mean is 4, the total must be $6 \times 4 = 24$.
The missing number of goals is 3

Investigate missing data when given the mean