



**Topic: Statistics**

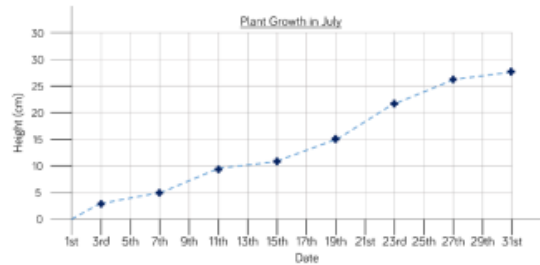
**Year: 6**

**Strand: Statistics (Number)**

**What should I already know?**

Previous learning that will help you with this unit of work:

- Solving problems using information presented in a line graph (Year 5)
- Your addition and division skills will be very useful in calculating averages.
- Your knowledge of rounding and reading decimals will help you when rounding averages.



**Key Vocabulary**

Data	You can refer to information as data, especially when it is in the form of facts or statistics.
Statistics	The collection, analysis (looking closely for we can learn), understanding, and presentation of data.
Scale	The set of numbers that are used to compare or measure information.
Axis/axes	An axis of a graph is one of the two lines on which the scales of measurement are marked. Axes is plural of axis.
Graph	A graph is a mathematical diagram which shows the relationship between two or more sets of numbers or measurements.
Frequency	The frequency of an event is the number of times it happens during a particular period.
Line graph	A graph with points connected by lines to show how something changes in value: <ul style="list-style-type: none"> <li>• as time goes by,</li> <li>• or as something else changes.</li> </ul> They show continuous not discrete data.
Discrete data	Can only take certain values. For example, the number of students in a class or the number that can be rolled on a dice. Only a specific set of values are possible.
Continuous data	Can take any value within a range, such as a persons height (within a range of possible heights), time taken in a race (down to fractions of a second).
Pie chart	A Pie Chart is a special chart that uses "pie slices" to show relative sizes of data. The chart is divided into sectors, where each sector shows the relative size of each value.
Sector	A "pie-slice" part of a circle - the area between two radiuses and the connecting arc of a circle.
Circumference	The distance around the edge of a circle (or any curvy shape). It is a type of perimeter.
Diameter	The distance from one point on a circle through the center to another point on the circle. It is also the longest distance across the circle. It is twice the radius.
Radius	The distance from the center to the circumference of a circle. It is half of the circle's diameter.
Average	A calculated "central" value of a set of numbers. There are different forms of averages in maths.
Mean	The Arithmetic Mean is the average of the numbers: a calculated "central" value of a set of numbers.

**What will I know by the end of the unit?**

What information can I present in a line graph?	Any information that has variables which are related (one affects the other)
Do all line graphs use the same scale?	No this changes for the data being shown.
What does a pie chart shown?	The relative amounts of data in different sectors.
What is the circumference, diameter and radius of a circle?	Perimeter, measurement across at its widest point and from the centre to the edge.
What do all the sections of a pie chart add up to?	360 degrees (angles) or 100% of the data.
What is shown on this graph/chart?	You will be able to read the data and explain what is being shown.
What is the mean?	An kind of average. Add up all the values of data and divide them by the number of values of data.
Is the mean always a whole number?	No it can be a decimal.

**Objectives**

- Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.
- Interpret and construct pie charts and line graphs and use these to solve problems.
- Calculate the mean as an average.

**Useful Websites**

<https://www.mathsisfun.com/>