

**WHAT ARE THE BIG AIMS OF YEAR 8?**

To start to develop confidence in selecting appropriate strategies throughout the areas of mathematics and have the ability to justify decisions.

**WHAT WILL EXCELLENCE LOOK LIKE IN YEAR 8?**

1. Choose appropriate strategies for calculations.
2. Use properties of shapes to successfully identify individual shapes.
3. Using ratio and proportion to justify best value situations.
4. Completing and identifying the correct single transformation.
5. Analyse the data correctly from different scenarios including graphs
6. Solve equations with unknowns on both sides.

**WHAT KNOWLEDGE DO THE PUPILS NEED TO ACQUIRE?**

1. Number strategies.
2. Properties of 2-dimensional shapes.
3. Ratio and proportion.
4. Transformations and vectors.
5. Know when to use the different data representations.
6. Linear sequences and equations.
7. Know that probability is measured on a 0-1 scale

**WHAT SKILLS DO THE PUPILS NEED TO DEVELOP?**

1. Use formal and informal methods in various contexts.
2. Use the properties of 2-dimensional shapes to identify shapes correctly.
3. Find the relationship between two (or more) quantities.
4. Completing and identifying the correct single transformation.
5. Analyse situations using the data, interpret and compare statistical representations.
6. Recognise patterns and create expressions and equations.

**WHAT MISCONCEPTIONS MAY THEY HAVE FROM PREVIOUS LEARNING?**

1. Using formal methods inappropriately.
2. Not combining the properties of 2-dimensional shapes to classify shapes.
3. Fractions and ratios are of the same concept rather than understanding that proportion relates to the whole and that ratio compares parts of a whole. Making incorrect links between fractions and decimals such as thinking that  $\frac{1}{5} = 0.1$ . Thinking that  $5\% = 0.5$ ,  $4\% = 0.4$ , etc. Thinking it is not possible to have a percentage greater than 100%.
4. Incorrect mathematical language used in transformations and thinking that the centre of enlargement always has to be (0,0), or that the centre of enlargement will be in the centre of the object shape.
5. Interpreting scales (numbers) incorrectly from diagrams.
6. Understanding the order of operations and not considering  $4ab$  and  $3ba$  as 'like terms' and therefore will not 'collect' them when simplifying expressions

**WHAT ASSESSMENTS WILL BE USED ACROSS THE YEAR TO DEMONSTRATE HOW THE PUPILS HAVE ACQUIRED THE KNOWLEDGE AND DEVELOPED THE SKILLS?**

Termly cumulative assessments – to check progress over time, and compare across the year group.

Frequent mini assessments in class to check short term development of understanding of concepts taught.