



Mathematics Long Term Plan

Denewood Academy

Maths Intent:

Our Maths curriculum is creative and rich in the skills and knowledge necessary to re-ignite a love of learning and prepare them for their next educational steps.

The curriculum builds on from the foundation skills taught at KS2 and has been designed to mirror the typical order of topics taught within mainstream education with the intent to; secure and deepen pupils' understanding and confidence with number work and calculations, develop understanding of shape and space with 3D shapes and angle rules, introduce pupils to algebra and the advantages it provides, teach pupils to represent, summaries and compare data sets also supporting them to discover and build their logical thinking skills and deepen their problem solving abilities.

Our aim is to develop a positive culture of deep understanding, confidence and competence in mathematics that prepares pupils for the future ahead of them. We believe that even in a short space of time at Denewood Academy, pupils will start to become fluent with these fundamentals and develop a conceptual understanding with the ability to recall and apply knowledge confidently and accurately providing them with the essential skills for future success.



Key stage 2

Autumn		Spring		Summer	
Block 1: Number – Numbers beyond 20; Block 2: Number – Addition and subtraction, Addition methods, Subtraction methods, Problems (addition and subtraction), Estimating and checking;	Block 3: Number - Times tables, Multiplication, Division, Problems (multiplication and division)	Block 1: Number – Times tables, Problems (Multiplication and division), Multiplication methods, Division methods; Block 2: Measurement – Money, Converting units;	Block 3: Statistics – Construct, read and interpret; Block 4: Measurement – Length and height, Converting units, Perimeter; Block 5: Number – Recognising, finding and making fractions, Equivalence, Counting and calculating with fractions	Block 1: Number – Equivalence, Addition with fractions, Subtraction with fractions; Block 2: Measurement – Problems (measurement), Time;	Block 3: Geometry – Shape, Patterns and symmetry, Angles; Block 4: Measurement – Problems (measurement), Weight and mass, Volume and capacity, Temperature



Key Stage 3

Autumn		Spring		Summer	
Number	Number	Shape	Algebra	Ratio and proportion	Data
To reinforce basic numeracy skills and ensure that pupils have a confident written method for the four rules as this is essential moving forward throughout the curriculum.	To reinforce basic numeracy skills and ensure that pupils have a confident written method for the four rules as this is essential moving forward throughout the curriculum.	To reinforce basic numeracy skills and ensure that pupils have a confident written method for the four rules as this is essential moving forward throughout the curriculum.	To reinforce basic numeracy skills and ensure that pupils have a confident written method for the four rules as this is essential moving forward throughout the curriculum.	To reinforce basic numeracy skills and ensure that pupils have a confident written method for the four rules as this is essential moving forward throughout the curriculum.	To reinforce basic numeracy skills and ensure that pupils have a confident written method for the four rules as this is essential moving forward throughout the curriculum.
To be able to identify factors, multiples, prime and square numbers.	To be able to work with negative numbers.	To be able to identify shapes and use their properties.	To be able to use algebraic notation and symbols correctly.	To be able to use and understand ratio notation. To be able to divide an amount into a given ratio.	To be able to read and draw bar charts and pictograms.
To be able to find the LCM and HCF.	To be able to work with fractions decimals and percentages.	To be able to accurately measure angles using a protractor.	To know how to interpret simple expressions as functions with inputs and outputs.	To be able to simplify ratios. To be able to solve problems using ratios.	To be able to read and draw pie charts.
To be able to express a number as a product of its prime factors.	To be able to understand the process of rounding numbers to a given degree of accuracy and the reasons for it.	To be able to accurately measure using a ruler	To be able to simplify expressions by collecting like terms.	To understand direct proportion and use it to	To be able to plot scatter graphs and use them to make a prediction.



To understand the correct order of operations		imperial measurements.	<p>To be able to simplify expressions involving brackets.</p> <p>To be able to substitute into formulae. To be able to solve linear equations.</p>	<p>solve problems in various situations.</p> <p>To be able to use conversion graphs. To be able to identify the best value for money (best buy deals).</p>	<p>To be able to calculate the mean, median and mode.</p> <p>To be able to calculate the mean from a frequency table.</p> <p>To be able to interpret grouped frequency tables.</p> <p>To explain the pros and cons of different averages and choose the correct one for different situations.</p>
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