Denewood ACADEMY

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. As pupils often join partway through the term, they complete a baseline assessment upon induction to help teachers tailor their planning. Since classes are taught in a range of prior attainment levels, all students are given the opportunity to demonstrate their prior knowledge at the start of each topic. This ensures that planning is appropriately pitched to meet learners' needs.

Pupils in Key Stage 2 follow the White Rose Curriculum. Teachers adapt resources to meet the needs of their pupils for example providing additional scaffolding or extension tasks when needed. Pupils who are admitted to Denewood at different starting points in the Academic year, receive a bespoke curriculum that revisits key skills. This is achieved through lesson starters that test pupils prior knowledge and learning gaps, one to one TA support, frequent Timetstable Rockstar competitions and access to the Complete Maths programme, where pupils are presented with questions based upon their knowledge and gaps.

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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

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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 be able to identify factors, multiples, prime and square numbers. To be able to find the LCM and HCF. To be able to express a number as a product of its prime factors.	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 work with negative numbers. To be able to work with fractions decimals and percentages. To be able to understand the process of rounding numbers to a given degree of accuracy and the reasons for it.	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 shapes and use their properties. To be able to accurately measure angles using a protractor. To be able to accurately measure using a ruler To be able to convert between metric and	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 use algebraic notation and symbols correctly. To know how to interpret simple expressions as functions with inputs and outputs. To be able to simplify expressions by collecting like terms.	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 use and understand ratio notation. To be able to divide an amount into a given ratio. To be able to simplify ratios. To be able to solve problems using ratios. To understand direct proportion and use it to	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 read and draw bar charts and pictograms. To be able to read and draw pie charts. To be able to plot scatter graphs and use them to make a prediction.

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