Cardrew Court School Longterm Overview: Maths

Through our Maths curriculum, we aim to enable every learner to achieve their best possible level of accreditation, in order to take the next step on their journey to adulthood. Our intent is that pupils will be: Numerate and able to manage their finances. Able to apply literacy skills to communicate their mathematical thinking. Aware of the real-life application of maths. Logical thinkers who can break down problems to solve them. By following the Whiterose Maths scheme Teachers are able to plan and deliver maths lessons that meet the national curriculum guidelines for all key stages in a fun, inclusive and age-appropriate way. We supplement the curriculum with Power Maths to fill the gaps in learning that many of our pupils have due to thier educational history.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
School Values **UNRC**	Respect & Resilience		Health & Happiness		Kindness & Independence	
Termly and Assembly Themes	**Respect**	**Resilience**	**Health**	**Happiness**	**Kindness**	**Independence**
Year 1	**Number** Place Value (within 10) Addition and Subtraction (within 10)	**Number** Addition and Subtraction (within 10) Place Value (within 20) Place Value (within 50) Multiples 2, 5 and 10 included	**Number** Addition and Subtraction (within 20) **Measurement** Length and Height	**Number** Place Value (within 50) (Multiples of 2,5 and 10 included) Multiplication and Division (Reinforce multiples of 2, 5 and 10 to be included) Fractions	**Measurement** Money Time	**Geometry** Shape **Number** Place Value (within 100) **Geometry** Position and Direction **Measures** Weight and Volume
Year 2	**Number** Place Value Addition and Subtraction	**Number** Addition and Subtraction Multiplication and Division	**Measurement** Money Length and Height **Statistics**	Problem-solving and efficient methods **Number** Fractions	**Measurement** Mass, Capacity and Temperature Time Investigations	**Geometry** Property of Shape Position and Direction
Year 3	**Number** Place Value Addition and Subtraction	**Number** Addition and Subtraction Multiplication and Division	**Measurement** Money Length and Perimeter **Statistics**	**Number** Multiplication and Division Fractions	**Measurement** Mass, Capacity and Temperature Time	**Geometry** Property of Shapes **Measurement** Mass and Capacity
Year 4	**Number** Place Value Addition and Subtraction	**Number:** Addition and Subtraction Multiplication and Division Fractions	**Measurement** Money Length and Perimeter **Statistics**	**Number** Multiplication and Division Fractions	**Number** Decimals **Measurement** Converting Units Volume	**Geometry** Property of Shape Position and Direction **Number** Decimals

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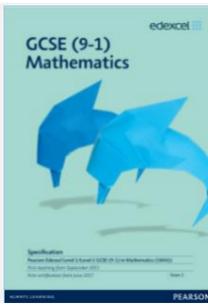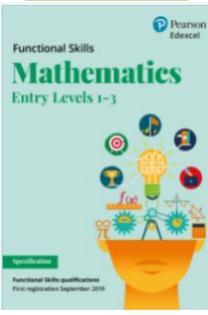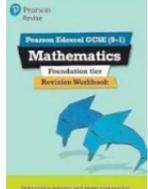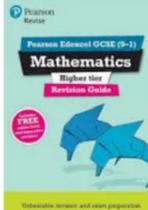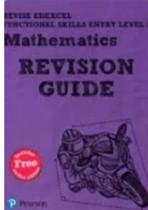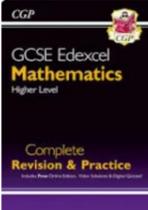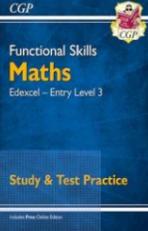|						
Year 5	**Number** Place Value Addition and Subtraction	**Number** Multiplication and Division Fractions	**Number** Decimals and Percentages **Measurement** Perimeter and Area **Statistics**	**Number** Multiplication and Division Fractions	**Number** Decimals **Measurement** Converting Units Volume	**Geometry** Property of Shape Position and Direction
Year 6	**Number** Place Value Addition, Subtraction, Multiplication and Division	**Number** Fractions	**Number** Decimals **Measurement** Perimeter, Area and Volume **Statistics**	**Number** Percentages Ratio	**Number** Algebra Problem Solving **Measurement** Converting Units	**Geometry** Property of Shape Position and Direction **Investigations**
Year 7	Place Value and ordering integers and decimals Solving Problems with addition and subtraction Solving Problems with multiplication and division	Solving Problems with multiplication and division Addition and Subtraction of fractions Fractions and percentages of amounts	Fraction, decimal and percentage equivalence Developing number sense Sets and probability	Understand and use algebraic notation Equality and equivalence Sequences	Operations and equations with directed number Constructing, measuring and using geometric notation	Developing geometric reasoning Developing number sense Prime numbers and proof
Year 8	Working in the Cartesian plane Representing data	The data handling cycle Multiplying and dividing fractions Multiplicative change	Fractions and percentages Measures of location Probability Tables and probability	Ratio and scale Sequences Indices	Brackets, equations and inequalities Angles in parallel lines and polygons	Area of trapezia and circles Line symmetry and reflection Number sense Standard index form
Year 9	Straight Line Graphs Numbers Forming and Solving Equations	Testing Conjectures Using Percentages Maths and Money	Enlargement and Similarity Solving Ratio and Proportion Problems Probability	Algebraic Representation Number and Measure Exam Or/And Functional Skills and Problem Solving	Number and Measure Exam Or/And Functional Skills and Problem Solving Deduction Constructions and Congruency	Three Dimensional Shapes Rotation and Translation Rates
Year 10 Foundation GCSE	Powers, indices Square root, cube root Standard form Algebra – collect terms. Algebra – x and ÷, brackets Algebra – x double brackets Factorising (+ difference of squares) Algebra - Solving equations Expressions, formula, functions	Sequences Inequalities Quadratic equations Simultaneous equations Proof Coordinates and midpoints Charts and graphs – pictograms, bar charts, two-way, line graphs, time series	Straight line graphs - Drawing, gradients, y = mx + c, parallel, perpendicular Quadratic graphs Harder graphs – cubic, reciprocal Solve equations using graphs. Distance-Time graphs. Real-Life graphs - Conversion, rate of change Scatter graphs, correlation.	Ratio Proportion – direct, graphs, inverse Percentages - Finding %, % change, interest Compound growth and decay Pie charts	Units of measurement, conversion Area and Volume conversions Time, timetables, Time problems Speed, Density, Pressure 2D Shapes – types and properties Congruence and Similarity	Reflection, rotational symmetry Transformations – translation, rotation, reflection, enlargement Perimeter and area 2D shapes, including solving problems and composite shapes Exam Technique, exam style questions, real life problems

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Year 10 Higher GCSE	Negative, fractional powers Algebra – triple brackets Manipulating surds Factorising quadratics Quadratic formula Completing the square Algebraic fractions	Nth term Quadratic Sequence Sequences to solve problems Quadratic Inequalities Graphical Inequalities Iterative method Combining Functions	Graphs of circles Trigonometric graphs Graph Transformations Area under a graph Average Gradient and Rate at a point	Changing Ratios Proportion using algebra	Circle Geometry Proving Congruence and Similarity	Extension on scale factors
Year 10 Entry Level 1	**Numbers and the Number system** Count and compare numbers up to 20 Add and subtract numbers to 20	**Numbers and the Number system** Recognise and +, - and = symbols Know the number of days in a week, months and seasons in a year.	**Using common measures, shape and space** Money Time – analogue and digital Measures: length, height, weight and capacity	**Using common measures, shape and space** 2D and 3D shape Position and direction	**Handling information and data** Lists Sort and classify objects Charts and diagrams: tally chart, block diagram/graph	**Problem Solving**
Year 11 Foundation GCSE	Circles, π – label, circumference, area, arc lengths, sectors 3D shapes – names, properties, surface area, nets, volumes	Projections – plans and elevations Isometric paper and 3D drawing Angles – types, measuring, rules, parallel lines, geometry problems Angles in polygons Triangle constructions Loci and constructions	Bearings Maps and scale drawings Pythagoras' Theorem Vectors Probability – scales, list outcomes, frequency, and/or tree diagrams	Sets and Venn diagrams Sampling and bias Collecting data Mean, median, mode, range Averages from tables Interpret and compare data Trigonometry	Revision Exam Preparation	Revision Exam Preparation
Year 11 Higher GCSE	Circles – area of segments Volumes of frustums Rates of flow	Enlargement for area and volume	3D Pythagoras' Vectors – extension and ratio Product rule to count outcomes Probability – extension for tree diagrams and conditional probability	Box plots Cumulative frequency Histograms and frequency density Moving average Sine and cosine rule 3D Trigonometry	Revision Exam Preparation	Revision Exam Preparation
Year 11 Entry Level 2	**Numbers and the Number system** Order numbers up to 200 Odd and even Recognise and interpret four rule symbols Add and subtract two-digit numbers Multiplication Weeks and years	**Numbers and the Number system** Division with remainders Rounding Fractions Decimals	**Using common measures, shape and space** Money Time – analogue and digital Length Weight Capacity	**Using common measures, shape and space** Temperature 2D and 3D shapes Position and Direction	**Handling information and data** Lists, tables, diagrams and bar charts Sort and classify	**Problem Solving**

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Year 11 Entry Level 3	Using numbers and the number system	Using numbers and the number system	Using common measures, shape and space	Using common measures, shape and space	Handling information and data	Problem solving
	Order numbers up to 1000	Division including remainders	Money	Length	Lists, tables, diagrams and charts and line graphs.	
	Addition and Subtraction	Fractions	Time	Mass & Weight		
	Multiplication	Decimals	Compare measures – metric and imperial	2D and 3D shapes – sorting, symmetry		
	Rounding			Position and Direction		
	Sequences					

Resources

Websites	Key Stage 1	Key Stage 2	Additional Resources	Key Stage 3	Key Stage 4 Accreditation	Key Stage 4 Revision Materials
National Numeracy Challenge			**Active Learn Games**		**Pearson Maths GCSE**	
Getting on With Numbers | National Numeracy Challenge	**White Rose**	**White Rose**	https://www.activelearnprimary.co.uk/start#powermaths	**White Rose**	Maths and Statistics | Pearson qualifications	
	Maths resources for teachers | White Rose Education	Maths resources for teachers | White Rose Education		Maths resources for teachers | White Rose Education		
NCETM	**Power Maths**	**Power Maths**			**Functional Skills Maths Entry Level 1, 2 & 3**	
Home | NCETM	ActiveLearn: Home (activelearnprimary.co.uk)	ActiveLearn: Home (activelearnprimary.co.uk)			Edexcel Functional Skills in Mathematics | Pearson qualifications	
Number of the Day						
Number of the Day - MathsStarters						