Maths Long Term Curriculum Plan 2025/2026

Bower Grove School
Together we Inspire & Achieve

Throughout our curriculum planning we remain focused on delivering a 21st century curriculum designed to ensure pupils are well prepared for the future.

The long-term Mathematics curriculum at Bower Grove School has been thoughtfully designed to meet the specific needs of our pupils. It draws upon the White Rose Mathematics Scheme of Learning and the National Curriculum to create a tailored and cohesive programme.

To further support pupil progress, additional time is allocated, one lesson each week, for revisiting key topics and developing core numeracy skills.

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7 Content Majority will be working within NC Years: 4 – 5	**Place Value and Base 10** Pupils will be saying, reading, writing, comparing, rounding and interpreting increasingly larger numbers. They will then move onto recapping and extending their understanding of calculating with money, before having an introduction to percentages. Practise learning, recalling and using basic numeracy (+, -, x, ÷ mentally) delivered once a week to embed core skills.	**Addition & Subtraction** Developing addition & subtraction mental and written calculation skills Pupils will be developing their addition and subtraction skills through games, investigations and intelligent practice. Pupils will also be applying their addition and subtraction skills to topics such as perimeter, money and sequences. Pupils to continue to practise learning, recalling and using basic numeracy (+, -, x, ÷ mentally) delivered once a week to embed core skills.	**Scales and Symbols** Pupils will learn/recall months of the year, days in a leap year and how to use a calendar. They will also explore the concepts of time (seconds to minutes to hours) and continue developing their understanding of analogue and digital clocks. Pupils will go on to explore scales and symbols through; - interpreting and drawing pictograms, bar charts and tables. - Positive and negative number lines (integers and decimals)	**Multiplication** Pupils will be developing their understanding of multiplication as repeated addition. Pupils will learn about the connection between multiplication, arrays and area. Pupils will also learn about multiples, factors and prime numbers. Pupils will develop their understanding and fluidity of times tables. They will begin to use their 1 to 10 times tables in order to calculate 2 digit multiplications. Pupils aiming to extend their learning will have an opportunity to learn about multiplying large numbers. Pupils to continue to practise learning,	**Understanding Fractions** Pupils will be using physical resources and pictorial methods to develop their understanding of fractions by identifying, comparing unit and non-unit fractions, as well as going on to exploring equivalent fractions. They might extend their knowledge through learning about decimals and percentages. In addition, all pupils will investigate codes and apply this to understanding of roman numerals and/or simplifying algebra. In preparation for Term 6 pupils will also recall and develop their skills in measuring length and converting measurements.	**Numbers in Geometry and Measure** Pupils will be consolidating their learning of number throughout the year, solving shape and measure problems, whilst developing their use and knowledge of shape and measure language. Pupils will do this through exploring angles, properties of shapes, symmetry and translation. Pupils will also use this term to recall, develop and link their knowledge from across the year on Time, Money and directions. Pupils to continue to practise learning, recalling and using basic numeracy (+, -, x, ÷ mentally) delivered once

			Pupils will have the opportunity to extend their learning with topics such as; function machines and substitution. Pupils to continue to practise learning, recalling and using basic numeracy (+, -, x, ÷ mentally) delivered once a week to embed core skills.	recalling and using basic numeracy (+, -, x, ÷ mentally) delivered once a week to embed core skills.	Pupils to continue to practise learning, recalling and using basic numeracy (+, -, x, ÷ mentally) delivered once a week to embed core skills.	a week to embed core skills.
Year 8 Content Majority will be working within NC Years: 4 – 6	**Addition and Subtraction Problems** Pupils will further develop addition and subtraction written and mental calculation skills with small/large whole numbers; decimals and/or negative numbers. They will develop fluency in these skills by then applying their knowledge within topics such as perimeter, and interpreting graphs. Pupils will begin to develop skills in using scientific calculators and exploring their link to BIDMAS.	**The Meaning of Division** Pupils will develop their understanding of division as repeated subtraction, sharing and grouping. Pupils will be encouraged to explore division as an inverse to multiplication. Pupils will begin to work with division as a formal written method and where needed pupils will be extended to divide with decimal numbers. Pupils will apply their understanding of division as sharing, by exploring unit fractions; linking denominators to parts of a whole. Pupils will then apply learnt knowledge to calculating unit fractions of amounts.	**Equivalent Proportions** Pupils will learn about equivalence across multiple topics including; fractions; metric units of measure, analogue & digital time and within money. Pupils who are confident will be extended by linking prior knowledge of Roman Numerals with time. As well as exploring equivalence in Algebra by collecting like terms. Practise learning, recalling and using basic numeracy (+, -, x, ÷ mentally, shapes, time, rounding) delivered once	**Calculating with Angles and Shapes** Pupils will learn to develop skills in measuring and drawing angles. They will then apply a more developed understanding of angles by calculating missing angles on straight lines, around a point and in shapes. Pupils will learn about 2D & 3D shapes, they will be able to identify and recognise properties of 2D and 3D shape. In addition to this, pupils will investigate the link between area of 2D shapes and volume of 3D shapes.	**Application of Multiplication and Division** Pupils will learn to apply their knowledge of multiplication and division within topics such as averages; multiples & factors; fractions of amounts; and proportion. Pupils will be encouraged to further develop their recall of times tables and see the link between related multiplication facts. Pupils will develop fluency with their multiplication knowledge by engaging with scale factors with comparative shapes.	**Using proportions** Pupils will learn to apply their developing understanding of proportion (fractions, decimals, percent) within measurement problems; probability and time. Furthermore, pupils will further develop their calculation skills with fractions and percentages. Pupils who are confident in interpreting and reading charts will be extending onto constructing pie charts, linking the years knowledge of angles and proportion to do this. Practise learning, recalling and using basic numeracy (+, -, x, ÷ mentally, shapes, time, rounding) delivered once

	Practise learning, recalling and using basic numeracy (+, -, x, ÷ mentally, shapes, time, rounding) delivered once a week to embed core skills.	Practise learning, recalling and using basic numeracy (+, -, x, ÷ mentally, shapes, time, rounding) delivered once a week to embed core skills.	a week to embed core skills.	Practise learning, recalling and using basic numeracy (+, -, x, ÷ mentally, shapes, time, rounding) delivered once a week to embed core skills.	Practise learning, recalling and using basic numeracy (+, -, x, ÷ mentally, shapes, time, rounding) delivered once a week to embed core skills.	a week to embed core skills.
Year 9 Content All pupils will be working towards Entry Level specification Majority extended within NC: Years 5 - 7	**Properties of Number** Pupils will develop and demonstrate their understanding of the place value of numbers and apply this to rounding, ordering and comparison problems. Pupils achieving these objectives at Entry 3 before the end of term will be extended onto; comparing, ordering and place value of numbers up to 2 decimal places, rounding to the nearest whole number, and exploring negative numbers.	**The Four Operations** Pupils will demonstrate their skills in adding, subtracting, multiplying and dividing without a calculator. They will also learn about estimation. Pupils achieving these objectives at Entry 3 before the end of term will be extended onto; Calculating with decimals up to 3 decimal places, using the order of operations, recognising and using square and cubic notation.	**Algebra** Pupils will develop their skills in solving problems involving unknowns. Pupils will calculate missing parts of number sentences; write algebraic expressions, using prior knowledge of equivalence; substituting into formulae and solving equations linear equations. Pupils will be given the opportunity to extend their learning by multiplying single terms over a bracket and factoring.	**Ratio** Pupils will develop understanding and skills with simple fractions, finding fractions of amounts, shapes and numbers. Furthermore, pupils will add and subtract fractions with the same denominator and scale quantities using a calculator. Pupils achieving these objectives at Entry 3 before the end of term will be extended onto; Identifying and writing equivalent fractions, using common factors to simplify fractions, multiplying and dividing with fractions, and converting between improper fractions and mixed numbers.	**Measure** Pupils will learn about estimating and measuring length, weight and capacity; comparing measurements and solving problems in different standard metric units. Pupils achieving these objectives at Entry 3 before the end of term will be extended onto; Measuring and calculating perimeter and area of composite rectilinear shapes, problem solving where the units of measure need to be converted, and identifying/labelling parallel and perpendicular lines.	**Geometry** Pupils will build on their language relating to properties of shapes and the names of 2D and 3D shapes, identifying lines of symmetry and nets of 3D solids. Pupils will also learn about giving directions using compass directions. Pupils achieving these objectives at Entry 3 before the end of term will be extended onto; Drawing and recognising nets of shapes beyond cube/cuboids, measuring and describing angles and working with shapes on a Cartesian Plane (reflections, translations, rotations)
Year 10 – Entry Level	**Money** Pupils will demonstrate	**Calendar and Time** Pupils will develop their skills in reading, setting	**Statistics** Pupils will learn about reading, drawing and	**Complete EL portfolio** *If Entry 3 not obtained pupils to restart Year 9 Entry Level Specification*	**Properties of Number** Pupils will develop and demonstrate their	**The Four Operations** Pupils will demonstrate their skills in adding,

Majority will be working within NC Years: 3-4	increased confidence at using coins and notes. They will learn about using decimals in the context of money and explore the rough values of different commonly bought items. Pupils achieving these objectives at Entry 3 before the end of term will be extended to Functional Skills level 1 specification.	and solve simple problems with time, including converting between units of time. Pupils achieving these objectives at Entry 3 before the end of term will be extended to Functional Skills level 1 specification.	solving problems related to a variety of graphs and tables, including pictograms, bar graphs, tally charts and frequency tables. They will also plan and collect data. Pupils achieving these objectives at Entry 3 before the end of term will be extended to Functional Skills level 1 specification.	Pupils will complete their portfolios, consolidate and extend their understanding of components 1-4 (place value, calculation, proportion and money).	understanding of the place value of numbers and apply this to rounding, ordering and comparison problems.	subtracting, multiplying and dividing without a calculator. They will also learn about estimation.
Year 10 – Functional Skills Level 1 Majority will be working within NC Years: 3-6	**Money and Percentages** Pupils will be confident in converting between units of money (£ p) Pupils will calculate simple percentage discounts as well as increasing and decreasing amounts by a percentage. Pupils will understand the concept of simple interest and then calculate simple interest on amounts of money. One lesson a week will be focussed on	**Time and Measurements** Pupils will compare and estimate durations of events and develop their understanding of analogue clocks by telling the time to the nearest minute. Pupils will go on to explore, interpret and utilise timetables (bus, train, leisure). Pupils will develop their understanding of position and direction linking this to knowledge of angles (90, 180, 270, 360). One lesson a week will be focussed on	**Statistics** Pupils will investigate and explore the meaning of continuous and discrete data. They will conduct surveys; creating tables and charts to represent their collected data. Pupils will calculate the mean of a data set and be able to explain why we might use this. One lesson a week will be focussed on Functional Skills exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written questions as well as work	**Calculations** Pupils will develop their understanding of addition, subtraction, multiplication and division. They will apply this knowledge to work with decimal numbers up to 2 decimal places. Pupils will multiply and divide by powers of 10 (10, 100, 1000). Pupils will develop calculator skills and begin to calculate with powers. Pupils will continue to embed their understanding of square numbers. Applying this to the physical representation of squares.	**Geometry** Pupils will secure their knowledge and understanding of perimeter and area of 2D shapes, whilst beginning to problem solve using these skills. Pupils will deepen their understanding of volume by exploring the link between area of 2D shapes and volume of 3D shapes. Pupils will draw and construct nets of simple 3D shapes. One lesson a week will be focussed on Functional Skills exam	**Algebra** Pupils will use simple formulae expressed in words for one or two-step operations. Pupils who require extending in algebra will follow Term 6 of the GCSE framework. One lesson a week will be focussed on Functional Skills exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written questions as well as work towards reducing exam anxiety.

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Year 10- GCSE Majority will be working within NC Years: 5-8	**Money and Percentages** Pupils will calculate with money, and use language such as credit/debit; turnover/profit. They will learn about increasing and decreasing amounts by a percentage; solving proportion problems (including 'best buy problems) and calculating interest. Pupils will use conversion rates. One lesson a week will be focussed on GCSE exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written questions as	**Measure (angles)** Pupils will measure and describe angles mathematically. They will recognise and derive the sum of angles; vertically opposite, on a straight line, about a point, in a triangle and in a quadrilateral. Pupils will move onto calculating missing angle problems. Pupils with a secure understanding of the above will begin to apply their knowledge into work which combines two or more of the angle rules. One lesson a week will be focussed on GCSE exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written questions as well as work	**Statistics** Pupils will plan, collect and learn to analyse statistics, interpreting and drawing scatter graphs, dual bar charts and speed, distance time graphs. Pupils will learn to calculate measures of central tendency; mean, median, mode. As well as exploring the spread of data by calculating the range. Pupils will then apply this knowledge by comparing data sets. One lesson a week will be focussed on GCSE exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written questions as well as work	**Calculations** Pupils will develop written methods for addition, subtraction, multiplication and division with whole numbers and decimals. Pupils will begin to compare numbers within standard form. They convert between ordinary numbers and those in standard form. Pupils confident with this will be extended onto calculating with numbers in standard form. One lesson a week will be focussed on GCSE exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written questions as well as work towards reducing exam anxiety.	**Geometry** Pupils will develop their understanding of 2D shapes and their angle properties. Pupils will build their confidence working with formulae as they learn about finding the area and perimeter of various shapes. Pupils will learn about converting metric and imperial units of measure, including using scales and construction. Pupils will learn about the relationship between the diameter and the circumference of a circle (pi) and begin to find the circumference, and possibly the area, of a circle. One lesson a week will be focussed on GCSE	**Algebra** Pupils will learn about sequences and relate this to linear graphs. Pupils will develop their skills in solving problems involving unknowns, such as missing parts of number sentences; writing algebraic expressions; substituting and solving equations Pupils will develop their understanding of simplifying algebraic expressions (including multiplying out brackets). One lesson a week will be focussed on GCSE exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written

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Year 11 – Entry Level Majority will be working within NC Years: 3-4	**Ratio** Pupils will develop understanding and skills with simple fractions, finding fractions of amounts, shapes and numbers. Furthermore, pupils will add and subtract fractions with the same denominator and scale quantities using a calculator.	**Measure** Pupils will learn about estimating and measuring length, weight and capacity; comparing measurements and solving problems in different standard metric units.	**Geometry** Pupils will build on their language relating to properties of shapes and the names of 2D and 3D shapes, identifying lines of symmetry and nets of 3D solids. Pupils will also learn about giving directions using compass directions.	**Complete Entry Level Portfolio** Pupils will complete their portfolios, consolidate and extend their understanding of components 5-7 (time, measure and shape).	**Everyday Maths (Home Maths)** Pupils will work at 'real-life' functional Maths activities that take place in the home. Pupils will apply their knowledge of area, perimeter, money, all four operations, and problem solving. They will do this based on a project to design a room in a house. Pupils will measure the dimensions of the room, calculate area, research paint pricings and then total cost	
Year 11 – Functional Skills Level 1 Majority will be working within NC Years: 3-6	**Number and Place Value** Pupils will develop their understanding of reading, writing, comparing increasingly larger numbers (up to 1,000,000) and decimal numbers.	**Proportional Reasoning** Pupils will develop skills in calculating with fractions, decimals and percentages. They will learn to relate this with their knowledge of units of measures. Pupils will learn to apply their	**Probability** Pupils will learn to calculate probabilities to predict the likelihood of future events occurring, writing these as simple fractions.	**Revision & Exams** *Lessons will revisit any content pupils missed in Year 10 and 11 and prepare for exams.* *Pupils will use functional skills past papers to see previous exam questions*.	**Revision & Exams** *Lessons will revisit any content pupils missed in Year 10 and 11 and prepare for exams.* *Pupils will use functional skills past papers to see previous exam questions*.	

	Pupils will calculate with BIDMAS; and extend their rounding skills to include rounding with decimal places. One lesson a week will be focussed on Functional Skills exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written questions as well as work towards reducing exam anxiety.	understanding of fractions, decimals and percentages to equivalence. Pupils will learn about equivalence between fractions; capacity and volume; in money. Pupils will develop written methods for addition, subtraction, multiplication and division with decimals. One lesson a week will be focussed on Functional Skills exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written questions as well as work towards reducing exam anxiety.	Pupils will link their knowledge of decimals by using a probability scale of 0-1 to determine likelihood of events. Pupils will familiarise themselves with probability language and then apply this vocabulary to hypothetical events. One lesson a week will be focussed on Functional Skills exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written questions as well as work towards reducing exam anxiety.			
Year 11 – GCSE Majority will be working within NC Years: 6-9	**Number and Place Value** Pupils will solve problems with multiples and factors; calculate with BIDMAS; and extend their rounding skills to include rounding with decimal places and then significant figures.	**Geometry and the Cartesian Plane** Pupils will learn about transforming shapes on co-ordinate paper. (rotation, translation, enlargement, reflection) Pupils will build on their angle knowledge to solve more complex angle problems and calculate with angles.	**Probability, Algebra and Circles** Pupils will learn to apply their understanding of fractions, decimals and percentages whilst also learning about probability. Pupils will learn to calculate probabilities to predict the likelihood of future events occurring. They will also calculate	**Triangles and Laws of Indices** Pupils will learn about Pythagoras' theorem and use it to solve problems. Pupils will extend their understanding of simplifying algebraic expressions, to include using powers. Pupils will learn about writing numbers in	**Revision & Exams** *Lessons will revisit any content pupils missed in Year 10 and 11 and prepare for exams.* *Pupils will use GCSE past papers to see previous exam questions.* Pupils secure in all previously taught content will be extended on to; Equations of lines,	

One lesson a week will be focussed on GCSE exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written questions as well as work towards reducing exam anxiety.	One lesson a week will be focussed on GCSE exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written questions as well as work towards reducing exam anxiety.	and interpret conditional probabilities. Pupils will learn about calculating the probability of two events occurring: using tree diagrams and calculating probabilities from Venn diagrams. Pupils will learn about solving more complex equations. Pupils confident with this will be extended onto simultaneous equations. Pupils will learn about the relationship between the diameter and the circumference of a circle (pi) and begin to find the circumference, and possibly the area, of a circle.	standard form and have the opportunity to develop their understanding of trigonometry One lesson a week will be focussed on GCSE exam style questions. This will allow pupils the chance to develop their skills on reading and understanding written questions as well as work towards reducing exam anxiety.	simultaneous equations, sketching linear, quadratic and simple cubic functions.