



## Maths Curriculum Map

### Maths Curriculum Intent

At Heather Avenue Infant School, we understand and recognise the needs of all our children and families, and in response offer a story rich, topic based curriculum, underpinned by the Early Years Foundation Stage or National Curriculum, in Maths we deliver these objectives via a scheme known as 'Power Maths'.

We recognise that Maths is a journey and long-term goal, achieved through exploration, clarification, practice and application over time. Our children are in the early stages of this journey and require a deep knowledge and understanding of basic skills using the discrete, pictorial and abstract learning to ensure understanding developed in a variety of contexts. Our children need to be taught key mathematical vocabulary so that they are able to understand the task in hand and apply their skills in order to find solutions to the problems posed. Our children need to see the progress they make and build confidence in their ability to acquire knowledge and understanding in maths.

The deep and deepest levels are what we are aiming for by teaching knowledge and skills in maths and how to apply these in a variety of contexts. We are committed to ensuring that children are able to recognise the importance of Maths in the wider world and that they are also able to use their mathematical skills and knowledge confidently in their lives in a range of different contexts. We want all children to enjoy Mathematics and to experience success in this subject.

We believe that each child should complete their time with us as an enthusiastic learner across all areas of a broad and balanced curriculum, ready for the next phase of their educational journey. We strive to prepare pupils for the opportunities, responsibilities and experiences of the next phase of their education and future life by giving them a wide range of real-life, memorable experiences.



## Maths Curriculum Implementation

All staff members are given training on our Maths curriculum and how to effectively implement it; the majority of this is completed as part of our staff meetings and led by the Maths subject leader, as well as by relevant external providers as required. Teachers have a good understanding of Maths and its component parts, including; Concrete, Pictorial and Abstract.

Our Curriculum map reflects the Power Maths scheme of work, where unit areas show the sequence of learning. Maths is taught daily and learning is built on progressively allowing children to develop their knowledge and skills effectively, as well as giving time to use and apply their learning.

<p>EYFS Children have a daily input including lots of practical activities, counting songs, rhymes and adult led tasks Concrete maths activities are set out as part of continuous provision Recorded learning in their 'Power Math' Journals is completed twice each week on a Wednesday and Friday</p>	<p>KS1 Children have a daily lesson in the following format with additional opportunities to use and apply maths skills across the curriculum Power Up – implementation of previously learnt skills Discover – opportunity to investigate a concept Share – ideas shared and discussed led by class teacher Think together – whole class investigates a concept Practice – whole class practices applying learning and time to Reflect</p>
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Children have opportunities to use and apply their maths knowledge and skills across our topic based curriculum. Children also have opportunities to rehearse skills at adhoc moments throughout the school day.

**Concrete** – children have the opportunity to use concrete objects and manipulatives to help them understand and explain what they are doing.

**Pictorial** – children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems.

**Abstract** – with the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.



During their time with us, children learn from high quality stimuli, all teachers scaffold learning and skills so that children develop their understanding as well as building the confidence needed to carry out and complete their own work. Blocks of work result in a product/outcome created independently/collaboratively by the children. Further links are made across the curriculum for all subjects to ensure learning is embedded and revisited.

All staff ensure that there are high expectations across school, with low threat and lots of genuine positive praise for positive behaviours, progress and success in all areas of school life.

Teachers are adept at assessing children using their own professional knowledge via formative and summative assessments, assessments are recorded on Classroom Monitor and Tapestry. Children who require additional support are quickly identified and supported via differentiation / intervention. Those requiring extension are identified and mastery approaches used to further progress their learning.

Consistently high standards of teaching are implemented across the curriculum and can be seen via learning walks, book scrutiny and through discussions with children and staff. SLT and subject leaders play a pivotal role in monitoring this process. Our Local advisory board and Trust further monitor our provision.

### **Maths Curriculum Impact**

Children achieve well at Heather Avenue Infant School and leave with firm foundations in Maths. Children achieve quick recall of facts and procedures, the flexibility and fluidity to move between different contexts and representations of mathematics, the ability to recognise relationships and make connections in mathematics.

A mathematical concept or skill has been *mastered* when a child can show it in multiple ways, using the mathematical language to explain their ideas, and can independently apply the concept to new problems in unfamiliar situations.

Children are able to use other areas of learning to complement their learning and progress. Children are prepared for continued success and the next phase of their educational journey.



## Maths Curriculum Map

	Unit Areas	Key Vocabulary
<b>Reception</b>	Unit 1: Numbers to 5 Unit 2: Sorting Unit 3: Comparing groups within 5 Unit 4: Change within 5 Unit 5: Time  Unit 6: Number bonds within 5 Unit 7: Numbers to 10 Unit 8: Comparing numbers within 10 Unit 9: Addition to 10 Unit 10: Number bonds to 10 Unit 11: Shape and Space  Unit 12: Exploring patterns Unit 13: Counting on and back Unit 14: Numbers to 20 Unit 15: Numerical patterns Unit 16: Measure	<p><u>Comparing Quantities:</u> First, then, now, every, none, missing number, equal, greater, larger, taller, longer, smaller, shorter, add, take</p> <p><u>Counting skills:</u> One - twenty (words and numerals)            Number, how many, compare, same, different, more, less, fewer, largest, smallest, odd one out, order, arrange, group, collection, represent, show, total, altogether, next, after, count on, count back, count backwards, methods, solutions, five frame, ten frame, cube, counter</p> <p><u>Exploring composition:</u> Describe, sort, object, part-whole model, whole, part, each, size, shape, colour, pattern, add together, addition, number story, addition story</p> <p><u>Shape and Space:</u> In, on, below, under, above, behind, in front of, up, down, across, circle, square, rectangle, triangle, cone, brick,</p>



		<p>cuboid, cylinder, cube, roll, slide, stack, push, rotate, curved, flat, straight, round, similar, side, face, corner, rule</p> <p><u>Understanding pattern:</u> Next, repeat, pattern, core, double, half, share, divide, split, odd, even</p> <p><u>Working with Measure:</u> Time, clock, o'clock, next, earlier, later, before, after, every day, timetable, sequence, length, height, high, distance, further, measure, longer, shorter, taller, weight, weigh, balance, scales, heavy, light, capacity, container, hold, full, empty, half, nearly, most, least, cup, glass</p>
<p><b>Year 1</b></p>	<p>Unit 1: Numbers to 10            Unit 2: Part-whole within 10            Unit 3: Addition and subtraction within 10 (1)            Unit 4: Addition and subtraction within 10 (2)            Unit 5: 2D and 3D shapes            Unit 6: Numbers to 20</p> <p>Unit 7: Addition within 20            Unit 8: Subtraction within 20            Unit 9: Numbers to 50            Unit 10: Introducing length and height            Unit 11: Introducing weight and volume</p>	<p>Unit 1: sort, group, digit, count back, one more, one less, matched, fewer, greater than (&gt;), less than (&lt;), equal to (=), most, least, fewest, greatest, number line, number track, pattern</p> <p>Unit 2: group, part-whole model, number sentence, plus, whole, part</p> <p>Unit 3: altogether, plus, add, in total, count on, missing part</p> <p>Unit 4: How many are left, in total, taken away, subtract, part, subtraction, addition, count backwards, How many more,</p>



	<p>Unit 12: Multiplication Unit 13: Division Unit 14: Halves and quarters Unit 15: Position and direction Unit 16: Numbers to 100 Unit 17: Time Unit 18: Money</p>	<p>how many fewer, difference, count on</p> <p>Unit 5: 3D, cube, cuboid, sphere, pyramid, cylinder, cone, 2D, circle, triangle, square, rectangle, face, pattern, repeated</p> <p>Unit 6: one more, one less, order, tens (10s), ones (1s), more, fewer, order, smallest</p> <p>Unit 7: add, altogether, ones (1s), tens (10s), number bond, part-whole, predict</p> <p>Unit 8: subtract, take away, find the difference, how many are left, tens, ones, number bond, part-whole, take away, fact family</p> <p>Unit 9: tens, ones, compare, order, less than (&lt;), greater than (&gt;)</p> <p>Unit 10: long, longer, longest, short, shorter, shortest, tall, taller, tallest, length, height, compare, measure, distance, ruler, centimetre</p> <p>Unit 11: heavier, heaviest, lighter, lightest, capacity, balance, scales, full, empty, compare, weight, weigh, balanced, measure, estimate</p>
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<p><b>Year 2</b></p>	<p>Unit 1: Numbers to 100</p> <p>Unit 2: Addition and subtraction (1)</p> <p>Unit 3: Addition and subtraction (2)</p> <p>Unit 4: Money</p> <p>Unit 5: Multiplication and division (1)</p>	<p>Unit 1: tens, ones, place value grid, partition, more, fewer, fewest, greatest, smallest</p> <p>Unit 2: fact family, number sentence, number bond, column, 10 more, 10 less</p>



	<p>Unit 6: Multiplication and division (2)  Unit 7: Statistics  Unit 8: Length and height  Unit 9: Properties of shapes  Unit 10: Fractions</p> <p>Unit 11: Position and direction  Unit 12: Problem solving and efficient methods  Unit 13: Time  Unit 14: Weight, volume and temperature</p>	<p>Unit 3: total, tens, ones, subtract, difference, bar model, represent</p> <p>Unit 4: pound (£), pence (p), coin, note, change</p> <p>Unit 5: equal groups, multiplication (×), times-table, times</p> <p>Unit 6: divide (÷), division, share, group, odd, even, times-table</p> <p>Unit 7: tally chart, pictogram, key</p> <p>Unit 8: length, centimetre (cm), metre (m), longer, shorter, metre stick, height, width, compare, distance</p> <p>Unit 9: quadrilateral, polygon, prism, pentagon, hexagon, octagon, vertex, vertices, hemisphere, symmetry, line of symmetry, symmetrical, curved surface, line of symmetry, edge</p> <p>Unit 10: half (<math>\frac{1}{2}</math>), quarter (<math>\frac{1}{4}</math>), whole, third (<math>\frac{1}{3}</math>), three quarters (<math>\frac{3}{4}</math>), equivalent, equal parts, numerator, denominator, fraction, bar, non-unit fraction, unit fraction, equal, fraction bar, unit fraction</p>
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