



Ashdene Primary School – Maths Curriculum

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| Purpose of study | Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. |
| Aims | <ul style="list-style-type: none"> • become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately • reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language • can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions. |
| Maths at Ashdene | At Ashdene in every maths lesson we aim to develop children's reasoning and problem solving. Furthermore, children develop their mathematical understanding through the use of concrete, pictorial and abstract resourcing which are made available to all children in every lesson. We aim to revisit and review mathematical concepts and make links between them in order to ensure children have a deeper understanding of the maths curriculum. |

Year 2

| | Week | Mental Maths | Maths Curriculum |
|------------|----------|--------------|---|
| HT1 | 1 | | <p>Number: Place Value</p> <ul style="list-style-type: none"> • Read and write numbers to at least 100 in numerals and in word. • Recognise the place value of each digit in a two-digit number (tens, ones). • Identify, represent and estimate numbers using different representations, including the number line. • Compare and order numbers from 0 up to 100; use <, > and = signs. • Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. • Count reliably at speed forwards and backwards up to 100 in 2s, 3s, 5s and 10s. |
| | 2 | | |
| | 3 | | |

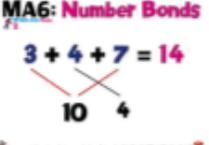
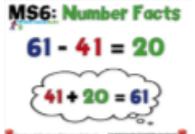
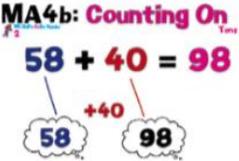


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| | 4 | | |
| | 5 | | <p>Retrieval Practice looking at place value of numbers up to 100 before starting addition and subtraction</p> <p>Number: Addition and Subtraction</p> <ul style="list-style-type: none"> Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones, a two-digit number and tens, two two-digit numbers, adding three one-digit numbers. Understand the language of addition and subtraction to include sum and difference. Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. Record addition and subtraction in columns, preparing for formal written methods with larger numbers. Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures and applying their increasing knowledge of mental and written methods. Apply my knowledge of number up to 100 to solve a one-step problem involving addition and subtraction. Understand that if $4 + 5$ is 9 then $40 + 50$ is 90. |
| | 6 | | |
| | 7 | Times table facts x2, x5, x10 | |
| | 8 | Retrieval practice across HT1 | |
| | Week | Mental Maths | |
| HT2 | | | Maths Curriculum |
| | 1 | | <p>Retrieval Practice looking at Place Value/ Addition/Subtraction before starting multiplication and division</p> <p>Number: Multiplication and Division</p> |



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| | 2 | | <ul style="list-style-type: none"> Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot Work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, to arrays and to repeated addition. Understand commutativity and inverse relations to develop multiplicative reasoning (for example, $4 \times 5 = 20$ and $20 \div 5 = 4$). Apply my knowledge of number up to 100 to solve a one-step problem involving multiplication and division. |
| | 3 | | |
| | 4 | | |
| | 5 | Times table facts: x3 | |
| | 6 | | <p style="text-align: center;">Measures</p> <ul style="list-style-type: none"> Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. Compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$ Compare and sequence intervals of time Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times Know the number of minutes in an hour and the number of hours in a day. Measure, compare, add and subtract using common metric measures. Tell the time to 5 minute intervals in both analogue and digital and relate one to the other. Know when it is sensible to measure in m or cms.; kg or gms.; l or ml.; hours or minutes. |
| | 7 | Retrieval practice across HT2 | <p style="text-align: center;">Retrieval Practice (Place Value/ Addition/ Subtraction/ Multiplication/ Division/ Measures)</p> |
| HT3 | Week | Mental Maths | Maths Curriculum |



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|---|---|---|
| 1 |  | <p style="text-align: center;">Retrieval Practice looking at Place Value/ Multiplication/ Division before starting Fractions</p> <p style="text-align: center;"><u>Number: Fractions</u></p> <ul style="list-style-type: none"> Recognise, find, name and write fractions one third, one quarter, two quarters and three quarters of a length, shape, set of objects or quantity. Write simple fractions for example, one half of 6 = 3. Recognise the equivalence of two quarters and one half. Explain to others when shapes and numbers are accurately divided into thirds, quarters, halves and three quarters. |
| 2 | Times table facts: x4 | |
| 3 |  | <p style="text-align: center;"><u>Measures</u></p> <ul style="list-style-type: none"> Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value ☐ find different combinations of coins that equal the same amounts of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. Measure, compare, add and subtract using common metric measures. Tell the time to 5 minute intervals in both analogue and digital and relate one to the other. Know when it is sensible to measure in m or cms.; kg or gms.; l or ml.; hours or minutes. |
| 4 | Times table facts: x2, x3, x4, x5, x10 | |
| 5 |  | <p style="text-align: center;"><u>Statistics</u></p> <ul style="list-style-type: none"> Interpret and construct simple pictograms, tally charts, block diagrams and simple tables Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity Ask and answer questions about totalling and comparing categorical data. Know when it is sensible to show information in a graph. |
| 6 | Retrieval practice across HT3 | <p style="text-align: center;">Retrieval Practice</p> <p style="text-align: center;"><i>(Place Value/ Addition/ Subtraction/ Multiplication/ Division/ Fractions/Measures/ Statistics)</i></p> |

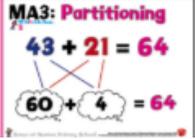
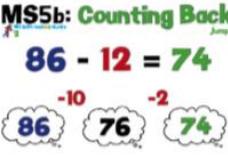
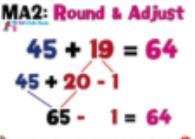
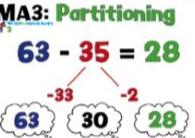


| | | Week | Mental Maths | Maths Curriculum |
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| HT4 | 1 | | Times table facts x2, x3, x4, x5, x10 | <p>Retrieval Practice looking at Place Value/ Fractions before starting Shape</p> <p style="text-align: center;">Shape</p> <ul style="list-style-type: none"> Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. Compare and sort common 2-D shapes into everyday objects. Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces . Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]. Compare and sort common 2-D and 3-D shapes and everyday objects. Know about right angles and where they can be seen in the environment. |
| | 2 | | | <p style="text-align: center;">Position and Direction</p> <ul style="list-style-type: none"> Order and arrange combinations of mathematical objects in patterns and sequences Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise). |
| | 3 | | | <p style="text-align: center;">Number: Addition and Subtraction</p> <ul style="list-style-type: none"> Record addition and subtraction in columns, preparing for formal written methods with larger numbers. Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures and applying their increasing knowledge of mental and written methods. Apply my knowledge of number up to 100 to solve a one-step problem involving addition and subtraction. Understand that if 4 + 5 is 9 then 40 + 50 is 90. |
| | 4 | | Times table facts x2, x3, x4, x5, x10 | <p style="text-align: center;">Number: Multiplication and Division</p> <ul style="list-style-type: none"> Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. Apply my knowledge of number up to 100 to solve a one-step problem involving multiplication and division. |
| | 5 | | | <p style="text-align: center;">Retrieval Practice</p> <p style="text-align: center;"><i>(Place Value/ Addition/ Subtraction/ Multiplication/ Division/ Fractions/ Shape/ Statistics)</i></p> |
| | 6 | | Retrieval practice across HT4 | |



| | | Week | Mental Maths | Maths Curriculum |
|-----|--|------|---|--|
| HT5 | | 1 | Times table facts x2, x3, x4, x5, x10 | <p style="text-align: center;"><u>Number: Fractions</u></p> <ul style="list-style-type: none"> Recognise, find, name and write fractions one third, one quarter, two quarters and three quarters of a length, shape, set of objects or quantity. Write simple fractions for example, one half of 6 = 3. Recognise the equivalence of two quarters and one half. Explain to others when shapes and numbers are accurately divided into thirds, quarters, halves and three quarters. |
| | | 2 | | <p style="text-align: center;">Retrieval Practice in order to prepare for End of KS1 SATs</p> <p><i>(Place Value/ Addition/ Subtraction/ Multiplication/ Division/ Fractions/ Shape/ Statistics/ Position and Direction)</i></p> |
| | | 3 | <p>MA4b: Counting On</p> <p>$58 + 40 = 98$</p> | |
| | | 4 | <p>MS4b: Counting On</p> <p>$40 - 28 = 12$</p> | |
| | | 5 | Retrieval practice across HT5 | |
| HT6 | | Week | Mental Maths | Maths Curriculum |
| | | 1 | Times table facts x2, x3, x4, x5, x10 | <p style="text-align: center;"><u>Number: Place Value</u></p> <ul style="list-style-type: none"> Read and write numbers to at least 100 in numerals and in word. Recognise the place value of each digit in a two-digit number (tens, ones). |



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| 2 |  | <ul style="list-style-type: none"> Identify, represent and estimate numbers using different representations, including the number line. Compare and order numbers from 0 up to 100; use <, > and = signs. Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward. Count reliably at speed forwards and backwards up to 100 in 2s, 3s, 5s and 10s. |
| 3 |  | <p style="text-align: center;">Number: Multiplication and Division</p> <ul style="list-style-type: none"> Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals (=) signs Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot Work with a range of materials and contexts in which multiplication and division relate to grouping and sharing discrete and continuous quantities, to arrays and to repeated addition. Understand commutativity and inverse relations to develop multiplicative reasoning (for example, $4 \times 5 = 20$ and $20 \div 5 = 4$). Apply my knowledge of number up to 100 to solve a one-step problem involving multiplication and division |
| 4 |  | |
| 5 |  | <p style="text-align: center;">Number: Addition and Subtraction</p> <ul style="list-style-type: none"> Record addition and subtraction in columns, preparing for formal written methods with larger numbers. Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures and applying their increasing knowledge of mental and written methods. Apply my knowledge of number up to 100 to solve a one-step problem involving addition and subtraction. Understand that if $4 + 5$ is 9 then $40 + 50$ is 90. |
| 6 | Times table facts x2, x3, x4, x5, x10 | Revisit/ Review/ Reflect |
| 7 | Retrieval practice across HT6 | |