



Mathematics Medium Term Plan

Mathematics

The school uses learning journeys taken from the new curriculum. The plans below provide an overview of coverage. More detail and exemplars of methods can be found in the curriculum.

An initial elicitation before each unit will inform teachers where children should start on the learning journey.

Each step on the learning journey will include opportunities for teaching, practise and application before a child moves on.

WALTs will be accompanied by step by step success criteria to support children working more independently.

Children will be aware of ARE for their year group. The aim is to consolidate this in a range of contexts and problems rather than moving onto objectives for the next year group.

In Year 1-6 there will be 5 lessons a week working on the learning journey. The lesson is split over two sessions. Session one will focus on the skills and session will focus on using these new skills to reason and problem solve.

Certain strands may be covered in mental/oral starters rather than as a main lesson e.g. counting on/back. These starters should relate to the learning in the main lesson. All strands should involve consolidation and practise of written and mental methods. Estimation, problem solving and answer checking techniques should be taught throughout all strands. These are listed as additional objectives at the end of the document.

Year 6 also cover **Ratio and Proportion** and **Algebra**. These will be used within coverage of other objectives and are highlighted where they fit.

Where a term length differs from below, the topics for each Learning Journey will be mapped out accordingly.



Mathematics Medium Term Plan

Term 1

| | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---------------|--|---|---|--|--|---|---|
| Week 1 | Setting up expectations/ Initial Elicitations | | | | | | |
| Week 2 | Number - Place Value | Count to and across 100. Count in steps of 2, 5 and 10 | Count in steps of 2, 3, 5 and 10 from any number | Count on from 0 in 4, 8, 50 and 100. | Count in multiples of 6, 7, 9, 25 and 1000. | Count in steps of powers of 10 up to 1 000 000 | Count in steps up to 1 000 000 and compare numbers |
| Week 3 | Number- Mental Addition and Subtraction | Represent and use number bonds within 20 | Use + and – facts to 20 and derive/use facts to 100 | +/- HTO and O, HTO and T, HTO and H | Solve addition and subtraction problems | Add and subtract mentally with increasingly large numbers | Perform mental calculations with mixed operations and large numbers |
| Week 4 | Number- Written Addition and Subtraction | Read, write and interpret mathematical statements + - = | Add and subtract up to 2 digits using column written methods Show + can be done in any order and – cannot. | Add and subtract up to 3 digits using column written methods | Add and subtract up to 4 digits using column written methods | Add and subtract with more than 4 digits using column written methods | Solve addition and subtraction multistep problems |
| Week 5 | Number- Mental Multiplication and Division | Solve 1 step problems with support | Recall and use facts for the 2, 5 and 10 x tables | Recall and use facts for the 3, 4 and 8 x tables | Recall and use facts for tables up to 12 x 12 | Identify multiples, factors and factor pairs | Identify common factors, multiples and prime numbers |
| Week 6 | Measurement - Time | Sequence events in chronological order. Use o' clock and half past. | Compare and sequence intervals of time. Use quarter to and past. | Read time to 5 minute intervals and nearest minute. | Read, write and convert time between analogue and digital clocks | Solve problems converting between units of time | Solve problems converting between units of time |
| Week 7 | Geometry – Shape | Recognise and name 2D shapes | Identify and describe properties of 2D shape. | Draw 2D shapes. Recognise right angles as a property. | Compare and classify geometrical shapes | Distinguish between regular and irregular polygons | Compare and classify geometrical shapes. Find unknown angles. |



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Term 2

| | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---------------|--|---|--|--|--|--|--|
| Week 1 | Number – Place Value | Read and write numerals to 100. Identify 1 more and 1 less. Use equal, more, less | Recognise the place value of each digit in a 2 digit number. Use < > and = signs | Recognise the place value of each digit in a 3 digit number. Compare and order | Recognise the place value of each digit in a 4 digit number. Compare and order. | Recognise the place value of each digit in a 7 digit number. Compare and order. | Recognise the place value of each digit in an 8 digit number. Compare and order. |
| Week 2 | Number – Written multiplication | Double numbers and use arrays for objects and numbers | Calculate x statements and solve using facts, arrays and repeated + Show x is commutative. | 2 digit x 1 digit formal written | Multiply 2 and 3 digit numbers by a 1 digit number. Formal written | Multiply up to 4 digit numbers by a 1 or 2 digit number. Formal written | Multiply up to 4 digit numbers by a 2 digit number. Formal written |
| Week 3 | Number – Written division | Group and share objects and numbers | Calculate ÷ statements and solve using facts, sharing and - | 2 digit ÷ 1 digit formal written | Divide 2 and 3 digit numbers by a 1 digit number. Formal written | Divide up to 4 digit numbers by a 1 digit number. Interpret remainders. Formal written | Divide up to 4 digit numbers by a 2 digit number. Interpret remainders by context. Formal written |
| Week 4 | Number – Fractions | Find $\frac{1}{2}$ and $\frac{1}{4}$ quarter of an object, shape or quantity | Recognise and find fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ | Recognise, write and find fractions of a set of objects. Recognise equivalent fractions. | Use fractions to calculate quantities and divide quantities | Compare and order fractions. Convert between mixed and improper. | Compare and order fractions. Simplify fractions and find common denominator. |
| Week 5 | Measurement – Weight | Measure and record mass/weight Compare, describe and solve practical problems | Estimate, measure and record mass (g/kg) | Measure, compare, + and – mass (kg/g) | Estimate, measure and convert between units of measure. | Convert between units of measure. Use 4 operations to solve problems. | Convert between units of measure including decimals. Use 4 operations to solve problems. |
| Week 6 | Statistics (Yr2 – 6) | Sequence events in chronological order. Use o' clock and half past. Measure time | Interpret and construct tally charts and pictograms (1: 2/5/10) | Interpret and present tables, pictograms and bar charts | Interpret and present discrete and continuous data. Include bar charts and time graphs | Solve comparison, sum and difference problems using line graphs. Calculate mean as an average. | Interpret and construct pie charts and line graphs. Convert miles to km. % in pie charts – Calculate % |
| Week 7 | Geometry – Position and direction | Describe position, direction and movement including turns | Describe movement using lines and rotation | Describe turns using right angles | Describe position using coordinates. Describe translations | Identify, describe and represent reflection and translation | Describe position in 4 quadrants. Translate and reflect. |



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Term 3

| | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---------------|--|---|--|--|---|---|---|
| Week 1 | Number – Place Value | Read and write numbers from 1-20 in numerals and words. Identify 1 more and 1 less. Use equal, more, less | Read and write numbers to 100 in numerals and words. Use place value and facts to solve problems | Read and write numbers to 1000 in numerals and words. Solve practical and number problems. | Read Roman numerals to 100 and understand how place value changed. Round to nearest 10/100/1000 | Read Roman numerals to 1000 and recognise years. Round any whole number. | Round any whole number. Identify place value in decimal numbers up to 3dp. |
| Week 2 | Number – Mental/Written + and – (money context) | Add and subtract 1 and 2 digit numbers to 20. Solve 1 step problems. Recognise coins and notes. | Solve problems with addition and subtraction. Find combinations of coins. Give change. | Solve problems with addition and subtraction. Calculate amounts of money. Give change. | Solve 2 step problems with addition and subtraction. Include money in £ and p. | Solve multistep problems with addition and subtraction. Include money in £ and p. | Solve addition and subtraction multistep problems in contexts. Use algebraic formulae. Express missing number problems. |
| Week 3 | Number – Fractions | Find $\frac{1}{2}$ and $\frac{1}{4}$ quarter of an object, shape or quantity | Recognise and find fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ | Recognise, write and find fractions of a set of objects. Recognise equivalent fractions. | Divide by 10/100. Round decimals to the nearest whole number. | Round decimals with 2dp to the nearest whole number. Read and write decimal numbers as fractions. | Divide by 10/100./1000. Calculate decimal fraction equivalents. |
| Week 4 | Number – Fractions | Find $\frac{1}{2}$ and $\frac{1}{4}$ quarter of an object, shape or quantity | Find and write simple fractions and recognise equivalence | Add and subtract fractions. Compare and order fractions. | Compare decimals with up to 2dp. Solve problems with money and measure. | Compare decimals with up to 3dp. Solve problems with money and measure up to 3dp. | Use equivalence between fractions, decimals and % Solve problems using knowledge of fractions |
| Week 5 | Measure – Length, area, perimeter | Measure and record length/height Compare, describe and solve practical problems | Measure and record length/height Compare and order. Use $<$ $>$ $=$. | Measure, compare, + and – mass (m/cm/mm) Measure the perimeter of 2D shapes. | Measure and calculate perimeter of rectilinear shapes. Find the area by counting squares. | Use metric and imperial units. Measure and calculate area and perimeter. Find missing lengths. | Calculate the area of parallelograms and triangles. Volume. Use algebraic formulae. Express missing number problems. |
| Week 6 | Geometry – Position and direction | Describe position, direction and movement including turns | Order and arrange mathematical objects in patterns and sequences. | Identify horizontal and vertical lines and pairs of parallel and perpendicular lines. | Plot points and draw sides to complete polygons. | Identify, describe and represent reflection and translation | Describe position in 4 quadrants. Translate and reflect. |



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Term 4

| | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|---------------|--|---|--|---|--|--|--|
| Week 1 | Measure – Time | Sequence events in chronological order. Use o' clock and half past. | Compare and sequence intervals of time. Use quarter to and past and 5 minute intervals. | Read Roman numerals to XII. Read time to 5 minute intervals and nearest minute. Compare and sequence intervals of time. Use a.m./p.m. | Read, write and convert time between analogue and digital clocks, 12 and 24 hour clocks. Convert time periods. | Solve problems converting between units of time. Complete, read and interpret information in timetables. | Solve problems converting between units of time Find pairs of numbers that satisfy an equation. |
| Week 2 | Number – Place Value | Count to and across 100. Count in steps of 2, 5 and 10 | Count in steps of 2, 3, 5 and 10 from any number | Count on from 0 in 4, 8, 50 and 100. | Count in multiples of 6, 7, 9, 25 and 1000. Recognise factor pairs. | Establish and recall prime numbers and prime factors. Recognise squared and cubed numbers. | Count in steps up to 1 000 000 and compare numbers |
| Week 3 | Number – Written multiplication | Double numbers and use arrays for objects and numbers | Calculate \times statements and solve using facts, arrays and repeated $+$ Show multiplication is commutative. | 2 digit \times 1 digit formal written. Solve problems involving missing number, scaling and correspondence. | Multiply 2 and 3 digit numbers by a 1 digit number. Formal written. Solve problems involving missing number, scaling and correspondence. | Multiply up to 4 digit numbers by a 1 or 2 digit number. Formal written. Solve problems involving scaling and simple rates. | Multiply up to 4 digit numbers by a 2 digit number. Formal written. Multiply 1 digit with 2dp by whole numbers. Solve problems involving the relative size of 2 quantities. |
| Week 4 | Number – Written division | Group and share objects and numbers | Calculate \div statements and solve using facts, sharing and $-$. Solve problems in contexts. | 2 digit \div 1 digit formal written. Solve problems involving missing number, scaling and correspondence. | Divide 2 and 3 digit numbers by a 1 digit number. Formal written. Solve problems involving missing number, scaling and correspondence. | Divide up to 4 digit numbers by a 1 digit number. Interpret remainders. Formal written. Solve problems involving scaling and simple rates. | Divide up to 4 digit numbers by a 2 digit number. Interpret remainders by context. Formal written. Use division where answer may have up to 2dp. |
| Week 5 | Geometry – 3D shape | Recognise and name common 3D shapes. | Identify, compare and sort 3D shapes using their properties. | Make 3D shapes. Recognise and describe 3D shapes in different orientations. | Identify 3D shape from 2D representations. | Draw and measure angles using degrees. | Draw 2D shapes using given dimensions and angles. Build and describe 3D shapes, including nets. |



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Term 5

| | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|--------|---------------------------------|--|--|--|--|---|--|
| Week 1 | Number – Written Addition | Read, write and interpret + - = | Add up to 2 digits using column written methods | Add up to 3 digits using column written methods | Add up to 4 digits using column written methods | Add with more than 4 digits using column written methods | Revision Written methods |
| Week 2 | Number – Written Subtraction | Read, write and interpret + - = | Subtract up to 2 digits using column written methods | Subtract up to 3 digits using column written methods | Subtract up to 4 digits using column written methods | Subtract with more than 4 digits using column written methods | Revision Fractions |
| Week 3 | Number – Fractions | Find $\frac{1}{2}$ and $\frac{1}{4}$ quarter of an object, shape or quantity | Find and write simple fractions and recognise equivalence | Add and subtract fractions. Compare and order fractions. | Add and subtract fractions. Compare and order fractions. Recognise and write decimal equivalents for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$ | Add and subtract fractions with the same denominator and denominators that are multiples of the same number. | Revision Geometry/Statistics |
| Week 4 | Geometry – Angles | Recognise and name 2D shapes | Use right angles to describe quarter, half and three-quarter turns. | Identify rights angles and angles which are greater/less than a right angle. | Identify acute and obtuse angles. Compare and order angles up to 2 right angles by size. | Estimate and compare acute, obtuse and reflex angles and in a turn. Draw and measure. | Revision Ratio/Proportion Measure |
| Week 5 | Measure – Capacity | Compare and solve problems for capacity and volume. | Estimate and measure capacity (ml/l) | Measure, compare, + and - volumes/ capacity (ml/l) | Convert between different units of measure (ml/l) | Estimate volume and capacity | SATS Week |
| Week 6 | Number – Written multiplication | Double numbers and use arrays for objects and numbers | Calculate x statements and solve using facts, arrays and repeated + Show multiplication is commutative. | 2 digit x 1 digit formal written. Solve problems involving missing number, scaling and correspondence. | Multiply 2 and 3 digit numbers by a 1 digit number. Formal written. Solve problems involving missing number, scaling and correspondence. | Multiply up to 4 digit numbers by a 1 or 2 digit number. Formal written. Solve problems involving scaling and simple rates. | Multiply up to 4 digit numbers by a 2 digit number. Formal written. Multiply 1 digit with 2dp by whole numbers. Solve problems involving the relative size of 2 quantities. |
| Week 7 | Number – Written division | Group and share objects and numbers | Calculate ÷ statements and solve using facts, sharing and -. Solve problems in contexts. | 2 digit ÷ 1 digit formal written. Solve problems involving missing number, scaling and correspondence. | Divide 2 and 3 digit numbers by a 1 digit number. Formal written. Include missing number, scaling and correspondence. | Divide up to 4 digit numbers by a 1 digit number. Interpret remainders. Formal written. Include scaling and simple rates. | Divide up to 4 digit numbers by a 2 digit number. Formal written. Use division where answer may have up to 2dp. |



Mathematics Medium Term Plan

Term 6

| | | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
|--------|--|---|---|--|---|--|---|
| Week 1 | Number – Place value | Read and write numerals to 100. Identify 1 more and 1 less. Use equal, more, less | Recognise the place value of each digit in a 2 digit number. Use < > and = signs | Recognise the place value of each digit in a 3 digit number. Compare and order | Recognise the place value of each digit in a 4 digit number. Compare and order. | Recognise the place value of each digit in a 7 digit number. Compare and order. | Recognise the place value of each digit in an 8 digit number. Compare and order. |
| Week 2 | Number – Written Addition and Subtraction | Add and subtract 1 and 2 digit numbers to 20. Solve 1 step problems. | Solve problems with addition and subtraction. | Solve problems with addition and subtraction. | Solve 2 step problems with addition and subtraction. | Solve multistep problems with addition and subtraction | Solve addition and subtraction multistep problems in contexts. Use algebraic formulae. Express missing number problems. |
| Week 3 | Number – Written Multiplication and Division | Double numbers and use arrays for objects and numbers. Share and group. | Calculate \times and \div statements and solve using facts, arrays, sharing and repeated + Show multiplication is commutative. Division is not. | 2 digit \times \div 1 digit formal written. Solve problems involving missing number, scaling and correspondence. | Multiply and divide 2 and 3 digit numbers by a 1 digit number. Formal written. Solve problems involving missing number, scaling and correspondence. | Multiply and divide up to 4 digit numbers by a 1 or 2 digit number. Formal written. Solve problems involving scaling and simple rates. | Multiply and divide up to 4 digit numbers by a 2 digit number. Formal written. Decimals to 2dp. Solve problems involving the relative size of 2 quantities. |
| Week 4 | Number – Fractions | Find $\frac{1}{2}$ and $\frac{1}{4}$ quarter of an object, shape or quantity | Find and write simple fractions and recognise equivalence | Add and subtract fractions. Compare and order fractions. | Recognise and show families of common equivalent fractions. | Multiply proper fractions and mixed numbers by whole numbers. | Add and subtract fractions. Multiply simple pairs of proper fractions. |
| Week 5 | Geometry - Shape | Describe position, direction and movement including turns | Order and arrange mathematical objects in patterns and sequences. | Identify horizontal and vertical lines and pairs of parallel and perpendicular lines. | Identify lines of symmetry. Complete a symmetrical figure. | Use properties of rectangles to deduce related facts. | Illustrate and name parts of a circle. Use algebraic formulae. |
| Week 6 | Statistics | Sequence events in chronological order. Use o' clock and half past. Measure time | Interpret and construct tally charts, pictograms (1: 2/5/10) and block diagrams. | Interpret and present tables, pictograms and bar charts. Solve 1 and 2 step problems | Solve comparison, sum and difference problems using bar charts, pictograms, tables and graphs. | Solve comparison, sum and difference problems using line graphs. Calculate mean as an average. | Interpret and construct pie charts and line graphs. % in pie charts – Calculate % |
| Week 7 | | | | | | | |



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Additional Objectives

These additional objectives are not mentioned explicitly on the medium term plan as they either need to be taught **throughout** rather than as a step on the learning journey, or can be covered as **mental/oral starters**.

| Year | Objective |
|--------|--|
| Year 1 | Recognise and use language relating to dates, including days of the week, weeks, months and years |
| Year 2 | Know the number of minutes in an hour and the number of hours in a day Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems |
| Year 3 | Know the number of seconds in a minute and the number of days in each month, year and leap year. Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one digit numbers or quantities by 10. Estimate the answer to a calculation and use inverse operations to check answers |
| Year 4 | Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10. Solve problems involving multiplying and adding, including using the distributive law to multiply 2 digit by 1 digit numbers, integer scaling problems and correspondence Estimate and use inverse operations to check answers to a calculation Count backwards through zero to negative numbers Find 1000 more or less than a given number |
| Year 5 | Solve problems which require knowing % and decimal equivalents Recognise % symbol and know it means 'parts per whole' Solve problems involving addition, subtraction, multiplication and division Solve problems involving multiplication and division using knowledge of factors, multiples, squares and cubes Multiply and divide numbers mentally drawing upon known facts Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. |
| Year 6 | Solve problems involving addition, subtraction, multiplication and division Use estimation to check answers to calculations Use knowledge of the order of operations to carry out the 4 operations Use negative numbers in context and calculate intervals. |



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