# **Maths Progression Map:** Academic Year 2025-26

St Thomas More Catholic Primary School

| | Autumn1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
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| **EYFS - Reception**<br><br>Numbers<br><br>(Using Number Mastery and White Rose ) | Children will learn to:<br><br>**Number**<br>Perceptually subitise within 3<br>Identify sub-groups in larger arrangements<br>Create their own patterns for numbers within 4<br>Practise using their fingers to represent quantities which they can subitise<br>See that all numbers can be made of 1s<br>Use the language of comparison, including 'more than' and 'fewer than'<br><br>**Numerical patterns**<br>Relate the counting sequence to cardinality, seeing that the last number spoken gives the number in the entire set<br>Count with 1:1 correspondence, including by coordinating movement and counting<br>Know that anything can be counted, including actions and sounds | Children will learn to:<br><br>**Number**<br>Subitise within 5, perceptually and conceptually, depending on the arrangements.<br>Explore the cardinality of 5, linking this to dice patterns and 5 fingers on 1 hand<br>Explore the concept of 'wholes' and 'parts'<br>Explore the composition of numbers within 5.<br>Compare sets by matching, seeing that when every object in a set can be matched to one in the other set, they contain the same number and are equal amounts<br>Recognise numerals, relating these to quantities they can subitise and count. (to 5)<br>Use a 5 frame<br><br>**Numerical patterns**<br>Begin to count beyond 5<br>Explore changes in quantities up to 5<br><br>**Circles and triangles** | Children will learn to:<br><br>**Number**<br>Recognise that numbers 1-10 have a '1 more' pattern going up and '1 less' going down<br>Match arrangements to finger patterns and represent quantities between 5 and 10<br>Order numbers 1-10, linking cardinal and ordinal representations of number.<br>Begin to recall 'missing' or 'hidden' parts for 5<br>Explore the composition of 6, 7, 8, linking this to familiar patterns, including symmetrical patterns eg 3 and 3<br>Begin to see that numbers within 10 can be composed of '5 and a bit'.<br>Explore ways of making unequal sets equal.<br><br>**Numerical patterns**<br>Develop verbal counting to 20 recognising the pattern<br><br>**Mass and capacity** | Children will learn to:<br><br>**Number**<br>Identify 1 more, and 1 Less<br>Show an understanding of the 'howmanyness' of a number, and its position in the number system.<br>Explore the composition of odd and even numbers, looking at the 'shape' of these numbers<br>Begin to explore the composition of numbers within 10.<br>Practical add small amounts<br>Use a 10 frame<br><br>**Numerical patterns**<br>Explore symmetrical patterns, in which each side is a familiar pattern, linking this to 'doubles'<br>Begin to link even numbers to doubles.<br>Explore the composition of odd and even numbers<br><br>**Length. Height and time**<br>Order more than 2 items by height and length | Children will learn to:<br><br>**Number**<br>Beginning to identify when it is appropriate to count and when groups can be subitised.<br>Confidently identify the composition of numbers to 5<br>Explore the composition of 10.<br>Use subitising skills to identify when patterns show the same number but in a different arrangement, or when patterns are similar but have a different number<br><br>**Numerical patterns**<br>Show increasing understanding of doubled patterns and 1 more / less and odd and even<br>Develop verbal counting to 20 and beyond, including counting from different starting numbers<br>Develop confidence and accuracy in both verbal and object counting | Children will learn to:<br><br>**Number**<br>Consolidate their understanding of concepts previously taught through working in a variety of contexts and with different numbers.<br><br>**Numerical patterns**<br>Consolidate their understanding of concepts previously taught through working in a variety of contexts and with different numbers.<br><br>**Manipulate, compose and decompose**<br>Chooses items based on their shape for a purpose<br>Select, rotate and manipulate shapes to develop spatial reasoning skills<br>Arrange the objects and describe the arrangement<br>Compose/ decompose shapes recognising a |

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| | **Match sort, compare objects**<br>Match objects,<br>Identify sets<br>Identify sorting techniques<br>Create sorting rules<br>**Talk about measure and size**<br>Secure knowledge of size- small, middle size, big<br>Compare and identify items by size – bigger. Smaller. Longer / shorter<br>Identify items that are heavier/lighter and balanced<br>**Patterns**<br>Copy simple ABAB pattern<br>continue a simple ABAB pattern<br>Create own simple ABAB | Identify Circles and triangles<br>Use mathematical language to describe shapes eg round, corner, sides<br>Describe position using language in, on, under, over, in front, behind, between, beside<br>**Shapes with 4 sides**<br>Identify and name shapes squares and rectangles<br>Find shapes in the environment<br>Talk about properties of the shapes | Make more precise comparisons using different units<br>Use scales to find a balance and distinguish different quantities on each side<br>Explore floating and sinking giving reasons<br>Confidently identify full and empty<br>Explore capacity and identify which containers hold more/less<br>• | Identify tallest / shortest / longest<br>Identify things that happen in the day and night<br>Sequence simple events in order<br>Understand time can be measured in set periods eg seconds, minutes, hours, days etc<br>Use every day language related to time | **Explore 3D shapes**<br>Recognise and name some 3D shapes<br>sees 2D shapes within 3D shapes<br>Use 3D shapes for tasks<br>Identify 3D shapes in the environment<br>**Patterns**<br>Identify more complex shapes – ABB, AAB, AABB, ABC<br>Copy, continue complex patterns<br>Create own complex patterns<br>Show an awareness of patterns in the environment | shape can have other shapes<br>**Visualise, build and map**<br>Describe positions<br>Give instructions for someone to build a model or make a picture<br>Visualise a picture form a different perspective<br>Create a simple map for familiar places, or story |
| **Year 1** | **Place Value**<br>• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number<br>• Count numbers to 100 in numerals; count in multiples of twos, fives and tens<br>• identify and represent numbers using objects and pictorial representations | **Addition and Subtraction**<br>• add and subtract one-digit and two digit numbers to 20, including zero<br>• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number | **Place Value**<br>• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number<br>• Count numbers to 100 in numerals; count in multiples of twos, fives and tens<br>• identify and represent numbers using objects and pictorial representations<br>• read and write numbers to 100 in numerals | **Place Value**<br>• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number<br>• Count numbers to 100 in numerals; count in multiples of twos, fives and tens<br>• identify and represent numbers using objects and pictorial representations<br>• read and write numbers to 100 in numerals | **Multiplication and Division**<br>• solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher<br>**Fractions**<br>• recognise, find and name a half as one of | **Place Value**<br>• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number<br>• Count numbers to 100 in numerals; count in multiples of twos, fives and tens<br>• identify and represent numbers using objects and pictorial representations<br>• read and write numbers to 100 in numerals |

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| | • read and write numbers to 100 in numerals<br>• read and write numbers from 1 to 20 in numerals and words<br>• given a number, identify one more and one less | problems such as 7 = 16 – 9<br>**Algebra**<br>• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ – 9<br>**Geometry**<br>• recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles]<br>• recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] | • read and write numbers from 1 to 20 in numerals and words<br>• given a number, identify one more and one less | • read and write numbers from 1 to 20 in numerals and words<br>• given a number, identify one more and one less<br>**Addition and Subtraction**<br>• add and subtract one-digit and two digit numbers to 20, including zero<br>• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = 16 – 9<br>**Multiplication and Division**<br>• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers<br>• show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot<br>**Measurement**<br>• compare, describe and solve practical problems for: | two equal parts of an object, shape or quantity<br>• recognise, find and name a quarter as one of four equal parts of an object, shape or quantity | • read and write numbers from 1 to 20 in numerals and words<br>• given a number, identify one more and one less<br>**Measurement**<br>• compare, describe and solve practical problems for:<br>□ lengths and heights<br>□ mass/weight<br>□ capacity and volume<br>□ time<br>• measure and begin to record the following:<br>□ lengths and heights<br>□ mass/weight<br>□ capacity and volume<br>□ time (hours, minutes, seconds)<br>• recognise and know the value of different denominations of coins and notes<br>• sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]<br>• recognise and use language relating to dates, including days of the week, weeks, months and years<br>• tell the time to the hour and half past |

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| | | | | • lengths and heights<br>• mass/weight<br>• capacity and volume<br>• time<br>• measure and begin to record the following:<br>• lengths and heights<br>• mass/weight<br>• capacity and volume<br>• time (hours, minutes, seconds) | | the hour and draw the hands on a clock face to show these times<br>**Geometry**<br>• describe position, direction and movement, including whole, half, quarter and three-quarter turns |
| **Year 2** | **Place Value**<br>• count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward<br>• read and write numbers to at least 100 in numerals and in words<br>• identify, represent and estimate numbers using different representations, including the number line<br>• recognise the place value of each digit in a two-digit number (tens, ones)<br>• compare and order numbers from 0 up to 100; use <, > and = signs<br>• use place value and number facts to solve problems | **Addition and Subtraction**<br>• add and subtract numbers using concrete objects, pictorial representations, and mentally, including:<br>• a two-digit number and ones<br>• a two-digit number and tens<br>• two two-digit numbers<br>• adding three one digit numbers<br>• solve problems with addition and subtraction:<br>• using concrete objects and pictorial representations, including those involving numbers, quantities and measures | **Multiplication and Division**<br>• calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs<br>• solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts<br>**Measurement**<br>• recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value | **Measurement**<br>• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels<br>• compare and order lengths, mass, volume/capacity and record the results using >, < and = | **Fractions**<br>• recognise, find, name and write fractions 1/3, ¼, 2/4, ¾ of a length, shape, set of objects or quantity<br>• Recognise the equivalence of 2/4 and ½<br>• write simple fractions for example, ½ of 6 = 3<br>**Measurement**<br>• compare and sequence intervals of time<br>• 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<br>• know the number of minutes in an hour and the number of hours in a day | **Geometry**<br>• order and arrange combinations of mathematical objects in patterns and sequences<br>• 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)<br>**Statistics**<br>• interpret and construct simple pictograms, tally charts, block diagrams and simple tables<br>• ask and answer simple questions by counting the number of objects in each |

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| | | • applying their increasing knowledge of mental and written methods<br>**Algebra**<br>• recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems<br>**Geometry**<br>• identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line<br>• identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]<br>• compare and sort common 2-D shapes and everyday objects<br>• recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]<br>• compare and sort common 3-D shapes and everyday objects | • find different combinations of coins that equal the same amounts of money<br>• solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change | | | category and sorting the categories by quantity<br>• ask and answer questions about totalling and comparing categorical data |
| **Year 3** | **Place Value**<br>• count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more | **Place Value**<br>• count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more | **Multiplication and Division**<br>• recall and use multiplication and division facts for the 3, 4 | **Fractions**<br>• count up and down in tenths; recognise that tenths arise from dividing an object into | **Fractions**<br>• solve problems that involve all of the above<br>**Measurement** | **Measurement**<br>• tell and write the time from an analogue clock, including using Roman numerals from I |

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| | or less than a given number<br>• identify, represent and estimate numbers using different representations<br>• read and write numbers up to 1000 in numerals and in words<br>• recognise the place value of each digit in a three-digit number (hundreds, tens, ones)<br>• compare and order numbers up to 1000<br>• solve number problems and practical problems involving these ideas | or less than a given number<br>**Addition and Subtraction**<br>• add and subtract numbers mentally, including:<br>□ a three-digit number and ones<br>□ a three-digit number and tens<br>□ a three-digit number and hundreds<br>• add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction<br>• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction<br>**Multiplication and Division**<br>• recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables<br>• write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one- | and 8 multiplication tables<br>• write and calculate Mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods<br>• solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects<br>**Algebra**<br>• solve problems, including missing number problems<br>**Measurement**<br>• measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)<br>• measure the perimeter of simple 2-D shapes | 10 equal parts and in dividing one-digit numbers or quantities by 10<br>• recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators<br>• recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators<br>• recognise and show, using diagrams, equivalent fractions with small denominators<br>• compare and order unit fractions, and fractions with the same denominators<br>• add and subtract fractions with the same Denominator within one whole [for example, 5/7+1/7=6/7<br>• solve problems that involve all of the above<br>**Measurement**<br>• measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) | • add and subtract amounts of money to give change, using both £ and p in practical contexts | to XII, and 12-hour and 24-hour clocks<br>• estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight<br>• know the number of seconds in a minute and the number of days in each month, year and leap year<br>• compare durations of events [for example to calculate the time taken by particular events or tasks]<br>**Geometry**<br>• draw 2-D shapes<br>• make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them<br>• recognise angles as a property of shape or a description of a turn<br>• identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles |

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| | | digit numbers, using mental and progressing to formal written methods<br>**Algebra**<br>• solve problems, including missing number problems | | | | are greater than or less than a right angle<br>• identify horizontal and vertical lines and pairs of perpendicular and parallel lines<br>• interpret and present data using bar charts, pictograms and tables<br>**Statistics**<br>• solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables |
| **Year 4** | **Place Value**<br>• count in multiples of 6, 7, 9, 25 and 1000<br>• count backwards through zero to include negative numbers<br>• identify, represent and estimate numbers using different representations<br>• read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value<br>• find 1000 more or less than a given number<br>• recognise the place value of each digit in a four-digit number | **Place Value**<br>• count in multiples of 6, 7, 9, 25 and 1000<br>• count backwards through zero to include negative numbers<br>**Addition and Subtraction**<br>• add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate<br>• solve addition and subtraction twostep problems in contexts, deciding which operations and methods to use and why | **Multiplication and Division**<br>• recall multiplication and division facts for multiplication tables up to 12 × 12<br>• use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers<br>• recognise and use factor pairs and commutativity in mental calculations<br>• multiply two-digit and three-digit numbers by a one-digit number | **Fractions**<br>• count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.<br>• recognise and show, using diagrams, families of common equivalent fractions<br>• add and subtract fractions with the same denominator<br>• solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions | **Fractions**<br>• count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.<br>• recognise and write decimal equivalents of any number of tenths or hundredths<br>• recognise and write decimal equivalents to ¼ ½ ¾<br>• round decimals with one decimal place to the nearest whole number<br>• compare numbers with the same number | **Measurement**<br>• Convert between different units of measure [for example, kilometre to metre; hour to minute]<br>• estimate, compare and calculate different measures<br>• read, write and convert time between analogue and digital 12- and 24-hour clocks<br>• solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days<br>**Geometry**<br>• compare and classify geometric shapes, |

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| | (thousands, hundreds, tens, and ones)<br>• order and compare numbers beyond 1000<br>• round any number to the nearest 10, 100 or 1000<br>• solve number and practical problems that involve all of the above and with increasingly large positive numbers | **Multiplication and Division**<br>• recall multiplication and division facts for multiplication tables up to 12 × 12<br>• use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers<br>• recognise and use factor pairs and commutativity in mental calculations<br>**Measurement**<br>• measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres<br>• find the area of rectilinear shapes by counting squares | using formal written layout<br>• solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects<br>**Measurement**<br>• Convert between different units of measure [for example, kilometre to metre; hour to minute]<br>• estimate, compare and calculate different measures<br>• measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres<br>• find the area of rectilinear shapes by counting squares | where the answer is a whole number<br>• recognise and write decimal equivalents of any number of tenths or hundredths<br>• recognise and write decimal equivalents to ¼ ½ ¾<br>• round decimals with one decimal place to the nearest whole number<br>• compare numbers with the same number of decimal places up to two decimal places<br>• solve simple measure and money problems involving fractions and decimals to two decimal places | of decimal places up to two decimal places<br>• solve simple measure and money problems involving fractions and decimals to two decimal places<br>**Measurement**<br>• estimate, compare and calculate different measures, including money in pounds and pence | including quadrilaterals and triangles, based on their properties and sizes<br>• identify lines of symmetry in 2-D shapes presented in different orientations<br>• identify acute and obtuse angles and compare and order angles up to two right angles by size<br>• identify lines of symmetry in 2-D shapes presented in different orientations<br>• complete a simple symmetric figure with respect to a specific line of symmetry<br>• describe positions on a 2-D grid as coordinates in the first quadrant<br>• describe movements between positions as translations of a given unit to the left/right and up/down<br>• plot specified points and draw sides to complete a given polygon<br>**Statistics**<br>• solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs |

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| **Year 5** | **Place Value**<br>• count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000<br>• count forwards and backwards with positive and negative whole numbers, including<br>• read, write, (order and compare) numbers to at least 1 000 000 and determine the value of each digit<br>• read Roman numerals to 1000 (M) and recognise years written in Roman numerals<br>• (read, write) order and compare numbers to at least 1 000 000 and determine the value of each digit<br>• interpret negative numbers in context<br>• round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000<br>• solve number problems and practical problems that involve all of the above<br><br>**Addition and Subtraction**<br>• add and subtract whole numbers with | **Multiplication and Division**<br>• identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers<br>• know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers<br>• establish whether a number up to 100 is prime and recall prime numbers up to 19<br>• recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)<br>• multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two digit numbers<br>• multiply and divide numbers mentally drawing upon known facts<br>• divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context | **Multiplication and Division**<br>• multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two digit numbers<br>• multiply and divide numbers mentally drawing upon known facts<br>• divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context<br>• multiply and divide whole numbers and those involving decimals by 10, 100 and 1000<br>• solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes<br>• solve problems involving multiplication and division, including scaling by simple | **Fractions**<br>• read and write decimal numbers as fractions [for example, 0.71 = 71/100<br>• recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents<br>• round decimals with two decimal places to the nearest whole number and to one decimal place<br>• read, write, order and compare numbers with up to three decimal places<br>• recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal<br>• solve problems which require knowing percentage and decimal equivalents of ¼ 1/5 2/5 4/5 and those fractions with a denominator of a multiple of 10 or 25<br>**Measurement** | **Geometry**<br>• distinguish between regular and irregular polygons based on reasoning about equal sides and angles.<br>• use the properties of rectangles to deduce related facts and find missing lengths and angles<br>• identify 3-D shapes, including cubes and other cuboids, from 2-D representations<br>• know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles<br>• draw given angles, and measure them in degrees<br>• identify:<br>□ angles at a point and one whole turn (total 360°)<br>□ angles at a point on a straight line and ½ a turn (total 180°)<br>□ other multiples of 90°<br>• identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed | **Place Value**<br>• count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000<br>• count forwards and backwards with positive and negative whole numbers, including through zero<br>**Fractions**<br>• read and write decimal numbers as fractions [for example, 0.71 = 71/100<br>• recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents<br>• round decimals with two decimal places to the nearest whole number and to one decimal place<br>• read, write, order and compare numbers with up to three decimal places<br>**Measurement**<br>• convert between different units of metric measure<br>• understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints |

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| | more than 4 digits, including using formal written methods (columnar addition and subtraction)<br>• add and subtract numbers mentally with increasingly large numbers<br>• solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why<br>• solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign | • multiply and divide whole numbers and those involving decimals by 10, 100 and 1000<br>• solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes<br>• solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates<br>**Fractions**<br>identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths<br>• recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5+4/5=6/5=11/5<br>• compare and order fractions whose denominators are all multiples of the same number<br>• add and subtract fractions with the same | fractions and problems involving simple rates<br>• solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign<br>**Fractions**<br>• add and subtract fractions with the same denominator and denominators that are multiples of the same number<br>• multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | • convert between different units of metric measure<br>• understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints<br>• use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling<br>• measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres<br>• calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes<br>• estimate volume [for example, using blocks to build cuboids] and capacity [for example, using water]<br>**Geometry** | | • use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling<br>• solve problems involving converting between units of time<br>• measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres<br>• calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes<br>• estimate volume [for example, using blocks to build cuboids] and capacity [for example, using water]<br>**Geometry**<br>• interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs<br>**Statistics**<br>• solve comparison, sum and difference problems using |

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| | | denominator and denominators that are multiples of the same number<br>• multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | | • complete, read and interpret information in tables, including timetables<br>**Statistics**<br>• solve comparison, sum and difference problems using information presented in a line graph | | information presented in a line graph |
| **Year 6** | **Place Value**<br>• read, write, (order and compare) numbers up to 10 000 000 and determine the value of each digit<br>• (read, write), order and compare numbers up to 10 000 000 and determine the value of each digit<br>• round any whole number to a required degree of accuracy<br>• use negative numbers in context, and calculate intervals across zero<br>• solve number and practical problems that involve all of the above<br>**Multiplication and Division**<br>• identify common factors, common multiples and prime numbers<br>• use estimation to check answers to calculations and | **Addition and Subtraction**<br>• perform mental calculations, including with mixed operations and large numbers<br>• use their knowledge of the order of operations to carry out calculations involving the four operations<br>• solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why<br>**Fractions**<br>• use common factors to simplify fractions; use common multiples to express fractions in the same denomination<br>• compare and order fractions, including fractions > 1 | **Ratio and Proportion**<br>• solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts<br>• solve problems involving the calculation/use of percentages for comparison<br>• solve problems involving similar shapes where the scale factor is known or can be found<br>• solve problems involving unequal sharing and grouping using knowledge of fractions and multiples<br>**Algebra**<br>• use simple formulae | **Fractions**<br>• identify the value of each digit in numbers given to three decimal places<br>• associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8<br>• recall and use equivalences between simple fractions, decimals and percentages, including in different contexts<br>**Measurement**<br>• recognise that shapes with the same areas can have different perimeters and vice versa<br>• recognise when it is possible to use formulae for area and volume of shapes | **Geometry**<br>• draw 2-D shapes using given dimensions and angles<br>• compare and classify geometric shapes based on their properties and sizes<br>• illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is<br>• recognise, describe and build simple 3-D shapes, including making nets<br>• find unknown angles in any triangles, quadrilaterals, and regular polygons<br>• recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles | **Geometry**<br>• interpret and construct pie charts and line graphs and use these to solve problems<br>• calculate and interpret the mean as an average |

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| | determine, in the context of a problem, an appropriate degree of accuracy<br>• multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication<br>• divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context<br>• divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context<br>• perform mental calculations, including with mixed operations and large numbers<br>• solve problems involving addition, subtraction, multiplication and division<br>• use their knowledge of the order of | • add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions<br>• multiply simple pairs of proper fractions, writing the answer in its simplest form [for example,1/4x1/2=1/8<br>• divide proper fractions by whole numbers [for example 1/3÷2=1/6<br>**Measurement**<br>solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 d.p. where appropriate<br>• use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 d.p.<br>• convert between miles and kilometres | • generate and describe linear number sequences<br>• express missing number problems algebraically<br>• find pairs of numbers that satisfy an equation with two unknowns<br>• enumerate possibilities of combinations of two variables | • calculate the area of parallelograms and triangles<br>• calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm3) and cubic metres (m3), and extending to other units | • describe positions on the full coordinate grid (all four quadrants)<br>• draw and translate simple shapes on the coordinate plane, and reflect them in the axes | |

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| | operations to carry out calculations involving the four operations | • use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa<br>*Note – In the WRM schemes, time conversions are covered in Y5; the Y6 block concentrates on metric units.* | | | | |