

Maths Overview

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
YR	<p><b><u>30-50M</u></b></p> <ul style="list-style-type: none"> <li>-To use some number names and number language spontaneously</li> <li>-To use some number names accurately in play</li> <li>-To recite numbers in order to 10</li> <li>-To know that numbers identify how many objects are in a set</li> <li>-To begin to represent numbers using fingers, marks on paper or pictures</li> </ul> <p>40-60+M</p> <ul style="list-style-type: none"> <li>- To recognise some numbers of personal significance</li> <li>-To count objects to 10 and beginning to count beyond 10</li> <li>- To select the correct numeral to represent 1-5, then 1-10 objects</li> <li>-To use the language of 'more' to compare 2 sets of objects</li> </ul> <p><b><u>Shape, space and measures 30-50M</u></b></p> <ul style="list-style-type: none"> <li>-To show an interest in shape and space by playing with shapes or making arrangements with objects</li> <li>-To show awareness of similarities of shapes in the environment</li> </ul> <p>40-60+M</p> <ul style="list-style-type: none"> <li>-To begin to use mathematical names for solid 3D shapes and flat 2D shapes and mathematical terms to describe shapes</li> <li>-To select particular named shapes</li> <li>-To use everyday language related to time</li> </ul>	<p><b><u>Numbers 30-50M</u></b></p> <ul style="list-style-type: none"> <li>-To sometimes match numeral and quantity correctly</li> <li>-To show curiosity about numbers by offering comments or asking questions</li> <li>-To compare two groups of objects, saying when they have the same number</li> </ul> <p>40-60+M</p> <ul style="list-style-type: none"> <li>-To find the total number of items in two groups by counting all of them</li> <li>-To say the number that is one more than a given number</li> <li>-To find one less from a group of 5 objects and then 10 objects</li> </ul> <p><b><u>Shape, space and measures 30-50M</u></b></p> <ul style="list-style-type: none"> <li>-To use positional language</li> <li>-To show interest in shape by sustained construction activity</li> </ul> <p>40-60+M</p> <ul style="list-style-type: none"> <li>-To describe his/her relative position such as 'behind' 'next to.'</li> <li>-To order and sequence familiar events</li> <li>-To measure short periods of time</li> </ul>	<p><b><u>Numbers 40-60+M</u></b></p> <ul style="list-style-type: none"> <li>-To find the total number of items in two groups by counting all of them</li> <li>-To say the number that is one more than a given number</li> <li>-To find one more or one less from a group of 5 objects and then 10 objects</li> <li>-To begin to use the vocabulary involved in adding and subtracting in practical activities and discussions</li> <li>-To record, using marks that he/she can interpret and explain</li> <li>-To begin to identify his/her own mathematical problems based on his her own interests and fascinations</li> </ul> <p><b><u>Shape, space and measures 40-60+M</u></b></p> <ul style="list-style-type: none"> <li>-To describe his/her relative position such as 'behind' 'next to.'</li> <li>-To order 2 or 3 items by length or height</li> <li>-To order 2 items by weight or capacity</li> <li>-To use familiar objects and common shapes to create and recreate patterns and build models</li> <li>-To use everyday language related to money and time</li> <li>-To order and sequence familiar events</li> <li>-To measure short periods of time</li> </ul>	<p><b><u>Numbers 40-60+M</u></b></p> <ul style="list-style-type: none"> <li>-To find the total number of items in two groups by counting all of them</li> <li>-To say the number that is one more than a given number</li> <li>-To find one more or one less from a group of 5 objects and then 10 objects</li> <li>-To begin to use the vocabulary involved in adding and subtracting in practical activities and discussions</li> <li>-To record, using marks that he/she can interpret and explain</li> <li>-To begin to identify his/her own mathematical problems based on his her own 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using marks that he/she can interpret and explain</li> <li>-To begin to identify his/her own mathematical problems based on his her own interests and fascinations</li> </ul> <p>-ELG-Counts reliably with numbers from 1-20, places them in order and says which number is one more or one less than a given number</p> <p>-ELG-Adds and subtracts, using quantities and objects, 2 single digit numbers, and counts on or back to find the answer</p> <p>-ELG-Solves problems, including doubling, halving and sharing</p> <p><b><u>Shape, space and measures 40-60+M</u></b></p> <ul style="list-style-type: none"> <li>-To describe his/her relative position such as 'behind' 'next to.'</li> <li>-To order 2 or 3 items by length or height</li> <li>-To order 2 items by weight or capacity</li> <li>-To use familiar objects and common shapes to create and recreate patterns and build models</li> <li>-To use everyday language related to money and time</li> <li>-To order and sequence familiar events</li> <li>-To measure short periods of time</li> <li>-ELG-Uses everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects to solve problems</li> <li>-ELG-Recognises, creates and describes patterns</li> <li>-ELG-Explores characteristics of everyday objects and shapes and uses mathematical language to describe them</li> </ul>	<p><b><u>Numbers 40-60+M</u></b></p> <ul style="list-style-type: none"> <li>-To find the total number of items in two groups by counting all of them</li> <li>-To say the number that is one more than a given number</li> <li>-To find one more or one less from a group of 5 objects and then 10 objects</li> <li>-To begin to use the vocabulary involved in adding and subtracting in practical activities and discussions</li> <li>-To record, using marks that he/she can interpret and explain</li> <li>-To begin to identify his/her own mathematical problems based on his her own interests and fascinations</li> </ul> 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						<p>-ELG-Uses everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects to solve problems</p> <p>-ELG-Recognises, creates and describes patterns</p> <p>-ELG-Explores characteristics of everyday objects and shapes and uses mathematical language to describe them</p>
	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>
Y1	<p><b><u>Number and place value</u></b> Count, read and write numbers from 1 to 20 in numerals and words</p> <p>Identify one more and one less than a given number.</p> <p>Identify and represent numbers using objects and pictorial representations</p> <p><b><u>Addition and subtraction</u></b> Read and understand number statements using +, - and =. Represent and use number bonds within 10 Add and subtract one digit numbers to 10.</p> <p><b><u>Measures</u></b> Recognise and use language relating to days, weeks, months and years.</p> <p>Use chronological language (before, after, next, first, today, yesterday, tomorrow, morning and afternoon)</p>	<p><b><u>Number and place value</u></b> Count, read and write numbers from 1 to 40 in numerals.</p> <p>Identify one more and one less than a given number.</p> <p>Identify and represent numbers using objects and pictorial representations</p> <p><b><u>Addition and subtraction</u></b> Read and understand number statements using +, - and =. Represent and use number bonds within 10 Add and subtract one digit numbers to 10.</p> <p><b><u>Measures</u></b> Compare and describe objects for length and height by using language such as long, short, longer, shorter and tall. Measure length and height.</p>	<p><b><u>Number and place value</u></b> Count, read and write numbers from 1 to 70 in numerals.</p> <p>Identify one more and one less than a given number.</p> <p>Identify and represent numbers using objects and pictorial representations</p> <p>Count in jumps of 2, 5 and 10.</p> <p><b><u>Addition and subtraction.</u></b> Represent and use number bonds within 20 Add and subtract one digit numbers to 20. Solve one step problems that use addition and subtraction and missing numbers using concrete objects and pictures.</p> <p><b><u>Measures</u></b> Tell the time to the hour and half past the hour and draw the hands onto clock faces. Compare and describe time using language such as quicker, slower, earlier and later. Measure and record time in hours, minutes and seconds.</p> <p><b><u>Geometry</u></b> Recognise and name 2D (squares, rectangles, circles and triangles) and 3D shapes</p>	<p><b><u>Number and place value</u></b> Count, read and write numbers from 1 to 100 in numerals.</p> <p>Identify one more and one less than a given number.</p> <p>Identify and represent numbers using objects and pictorial representations</p> <p>Count in jumps of 2, 5 and 10.</p> <p><b><u>Addition and subtraction.</u></b> Represent and use number bonds within 20 Add and subtract one and two digit numbers to 20. Solve one step problems that use addition and subtraction and missing numbers using concrete objects and pictures.</p> <p><b><u>Fractions</u></b> Recognise, find and name halves as one of two equal parts and quarters as one of four equal parts.</p>	<p><b><u>Number and place value</u></b> Count, read and write numbers from 1 to 100 in numerals.</p> <p>Identify one more and one less than a given number.</p> <p>Identify and represent numbers using objects and pictorial representations</p> <p>Count in jumps of 2, 5 and 10.</p> <p><b><u>Multiplication and division</u></b> Solve one step problems involving multiplication and division by using objects, pictures and other equipment</p> <p><b><u>Measures</u></b> Compare and describe objects for mass and weight by using language such as heavier and lighter. Measure weight and mass.</p> <p>Compare and describe objects for capacity and volume by using language such as full, empty, more than, less than, half full and quarter full.</p>	<p><b><u>Number and place value</u></b> Count, read and write numbers from 1 to 100 in numerals.</p> <p>Identify one more and one less than a given number.</p> <p>Identify and represent numbers using objects and pictorial representations</p> <p>Count in jumps of 2, 5 and 10.</p> <p><b><u>Multiplication and division</u></b> Solve one step problems involving multiplication and division by using objects, pictures and other equipment</p> <p><b><u>Geometry</u></b> Describe position, direction and movement including whole, half, quarter and three-quarter turns.</p> <p><b><u>Measures</u></b> Recognise and know the value of coins and notes.</p>

			(cuboids, cubes, pyramids and spheres).			
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Y2	<p>Count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward.</p> <p>Recognise the place value of each digit in a two-digit number (tens, ones).</p> <p>Identify, represent and estimate numbers using different representations, including the number line.</p> <p>Compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs.</p> <p>Read and write numbers to at least 100 in numerals.</p> <p>Read and write numbers to at least 100 in words.</p> <p>Use place value and number facts to solve problems.</p> <p>Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures.</p> <p>Solve problems with addition and subtraction, applying his/her increasing knowledge of mental and written methods.</p> <p>Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.</p> <p>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including a two-digit number and ones/tens/two two-digit numbers.</p> <p>Add and subtract numbers using concrete objects, pictorial representations, and mentally, including adding three one-digit numbers.</p>	<p>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.</p> <p>Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the X, ÷ and = signs.</p> <p>Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.</p> <p>Solve problems involving multiplication and division, using concrete materials and mental methods.</p> <p>Solve problems involving multiplication and division using arrays, repeated addition and multiplication and division facts, including problems in contexts.</p> <p>Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) and mass (kg/g), to the nearest appropriate unit, using rulers and scales.</p> <p>Compare and order lengths and mass and record the results using &lt;, &gt; and =.</p>	<p>Choose and use appropriate standard units to estimate and measure temperature (°C) to the nearest appropriate unit, using scales and thermometers.</p> <p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</p> <p>Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</p> <p>Ask and answer questions about totalling and comparing categorical data.</p> <p>Use place value and number facts to solve problems.</p> <p>Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures.</p> <p>Solve problems with addition and subtraction, applying his/her increasing knowledge of mental and written methods.</p> <p>Solve problems involving multiplication and division, using concrete materials and mental methods.</p> <p>Solve problems involving multiplication and division using arrays, repeated addition and multiplication and division facts, including problems in contexts.</p>	<p>Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.</p> <p>Find different combinations of coins that equal the same amount of money.</p> <p>Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.</p> <p>Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line.</p> <p>Identify 2-D shapes on the surface of 3-D shapes, e.g. a circle on a cylinder.</p> <p>Compare and sort common 2-D shapes and everyday objects.</p>	<p>Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces.</p> <p>Compare and sort common 3-D shapes and everyday objects.</p> <p>Recognise, find, name and write fractions <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math> and <math>\frac{3}{4}</math> of a length, shape, set of objects or quantity.</p> <p>Write simple fractions for example, <math>\frac{1}{2}</math> of <math>6 = 3</math> and recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math>.</p> <p>Order and arrange combinations of mathematical objects in patterns and sequences.</p> <p>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 anti-clockwise).</p>	<p>Compare and sequence intervals of time.</p> <p>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.</p> <p>Remember the number of minutes in an hour and the number of hours in a day.</p> <p>Choose and use appropriate standard units to estimate and measure capacity (litres/ml), to the nearest appropriate unit, using measuring vessels.</p> <p>Compare and order volume/capacity and record the results using &lt;, &gt; and =.</p>

	<p>Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.</p> <p>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</p>					
	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>
Y3	<p><b>Place Value.</b></p> <ul style="list-style-type: none"> <li>- Count from 0 in multiples of 4, 8, 50 and 100; finding 10 and 100 more and less than a given number.</li> <li>- Recognise the place value of each digit in a 3-digit number (hundreds, tens, ones).</li> <li>- Compare and order numbers to 1000.</li> <li>- Read and write numbers to 1000 in words and numerals.</li> <li>- Solve number problems and practical problems with these ideas.</li> </ul> <p><b>Addition and Subtraction</b></p> <ul style="list-style-type: none"> <li>- Add and subtract numbers mentally, including 3-digit and ones, 3-digit and tens, 3-digit and hundreds.</li> <li>- Estimate the answer to a calculation and use inverse to check the answer</li> </ul>	<p><b>Addition and Subtraction</b></p> <ul style="list-style-type: none"> <li>- Add numbers with up to 3-digits using a formal method of columnar addition.</li> <li>- Subtract numbers with up to 3-digits using a formal method of columnar subtraction.</li> <li>- Solve problems using missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul> <p><b>Multiplication and Division</b></p> <ul style="list-style-type: none"> <li>- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li> <li>- 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.</li> </ul>	<p><b>Length</b></p> <ul style="list-style-type: none"> <li>- Measure, compare, add and subtract: length (m/cm/mm); mass (kg/g); volume/ capacity (l/ml).</li> <li>- writing in m, cm and km.</li> <li>- Comparing length.</li> <li>- Solve worded problems.</li> </ul> <p><b>Volume and Mass</b></p> <ul style="list-style-type: none"> <li>- Reading weighing scales.</li> <li>- Solving words problems</li> <li>- Measuring/ Writing volume in Ml, L.</li> <li>- Measuring/ Writing capacity in Ml, L.</li> </ul> <p>Solving worded problems</p>	<p><b>Money</b></p> <ul style="list-style-type: none"> <li>- Add and subtract amounts of money to give change, using both £ and p in practical contexts.</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>- Solve fraction problems.</li> <li>- 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 of 10.</li> <li>- Recognise, find and write fractions of a discrete set of objects; unit fractions and non-unit fractions with a small denominator.</li> <li>- Recognise and write fractions as numbers: unit fractions and non-unit fractions with small denominators.</li> <li>- Recognise and show, using diagrams, equivalent fractions with small denominators.</li> <li>- Add and subtract fractions with the same denominator within one whole.</li> <li>- Compare and order unit fractions, and fractions with the same denominators.</li> </ul>	<p><b>Time</b></p> <ul style="list-style-type: none"> <li>- Tell and write the time from an analogue clock- including using Roman numerals from I to XII, 12-hour and 24-hour clocks.</li> <li>- Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours; use vocabulary such as o'clock, a.m./p.m., morning afternoon, noon and midnight.</li> <li>- Know the number of seconds in a minute and the number of days in each month, year and leap year.</li> </ul> <p>Compare durations of events e.g. to calculate the time taken by a particular events or tasks.</p>	<p><b>Picture Graphs and Bar Graphs</b></p> <ul style="list-style-type: none"> <li>- Interpret and present data using bar charts, pictograms and tables.</li> <li>- Solve one-step and two-step questions using information presented in scaled bar charts, pictograms and tables.</li> </ul> <p><b>Angles and Shape</b></p> <ul style="list-style-type: none"> <li>- Identify horizontal and vertical line pairs of perpendicular and parallel lines.</li> <li>- Recognise that two right angles make a half turn, three turns make <math>\frac{3}{4}</math> turn and 4 right angles make a whole turn.</li> <li>- Identify right angles and identify whether other angles are greater or less than a right angle.</li> <li>- Recognise angles as a property of shape or a description of a turn.</li> </ul> <p>Draw 2-D and 3-D shapes using modelling material; recognise 3-D shapes in different orientations and describe them</p>
	<b>Autumn 1</b>	<b>Autumn 2</b>	<b>Spring 1</b>	<b>Spring 2</b>	<b>Summer 1</b>	<b>Summer 2</b>

Y4	<p>Number and place value</p> <ol style="list-style-type: none"> <li>Count in multiples of 6, 7, 9 and 1000</li> <li>Find 1000 more or less than a given number</li> <li>Count backwards through zero to include negative numbers</li> <li>Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)</li> <li>Order and compare numbers beyond 1000</li> <li>Identify, represent and estimate numbers using different representations including measures</li> <li>Round any number to the nearest 10, 100 or 1000</li> <li>Solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> <li>Read Roman numerals to 1000 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value</li> </ol> <p><b>Addition and Subtraction</b></p> <ol style="list-style-type: none"> <li>Add numbers with up to four digits using the formal method of columnar addition</li> <li>Estimate and use inverse operations to check the answers to a calculations</li> <li>Subtract numbers with up to four digits using the formal method of columnar addition</li> <li>Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ol>	<p><b>Multiplication and Division</b></p> <ol style="list-style-type: none"> <li>Recall multiplication and division facts for the multiplication tables to 12 x 12</li> <li>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</li> <li>Recognise and use factor pairs and commutativity in mental calculations</li> <li>Multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>Solve problems involving multiplying and adding, including 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</li> </ol> <p><b>Fractions</b></p> <ol style="list-style-type: none"> <li>Recognise and show, using diagrams, families of common equivalent fractions</li> <li>Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten</li> <li>Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number</li> <li>Add and subtract fractions with the same denominator</li> </ol>	<p><b>Fractions cont.</b></p> <ol style="list-style-type: none"> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>Recognise and write decimal equivalents to <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math> and <math>\frac{3}{4}</math></li> <li>Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</li> <li>Round decimals with one decimal place to the nearest whole number</li> <li>Compare numbers with the same number of decimal places up to two decimal places</li> <li>Solve simple measure and money problems involving fractions and decimals to two decimal places</li> </ol> <p><b>Measurement</b></p> <ol style="list-style-type: none"> <li>Convert between different units of measure e.g. km to m; hour to minute</li> <li>Measure and calculate the perimeter of a rectilinear figure (including squares) in cm. and m.</li> <li>Find the area of rectilinear shapes by counting squares</li> <li>Estimate, compare and calculate different measures, including money in pounds and pence</li> <li>Read, write and convert time between analogue and digital 12- and 24- hour clocks</li> <li>Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days</li> </ol>	<p><b>Geometry</b></p> <p><b>Properties of Shape</b></p> <ol style="list-style-type: none"> <li>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li> <li>Identify acute and obtuse angles and compare and order angles up to two right angles by size</li> <li>Identify lines of symmetry in 2-D shapes presented in different orientations</li> <li>Compare a simple symmetric figure with respect to a specific line of symmetry</li> </ol> <p><b>Geometry</b></p> <p><b>Position and Direction</b></p> <ol style="list-style-type: none"> <li>Describe positions on a 2-D grid as coordinates in the first quadrant</li> <li>Describe movements between positions as translations of a given unit to the left/right and up/down</li> <li>Plot specific points and draw sides to complete a given polygon</li> </ol> <p><b>Statistics</b></p> <ol style="list-style-type: none"> <li>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</li> <li>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs</li> </ol>	<p><b>Addition and Subtraction</b></p> <p><b>Extend into Band 5</b></p> <ol style="list-style-type: none"> <li>Add numbers with up to four digits using the formal method of columnar addition</li> <li>Estimate and use inverse operations to check the answers to a calculations</li> <li>Subtract numbers with up to four digits using the formal method of columnar addition</li> <li>Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</li> </ol> <p><b>Multiplication and Division</b></p> <p><b>Extend into Band 5</b></p> <ol style="list-style-type: none"> <li>Recall multiplication and division facts for the multiplication tables to 12 x 12</li> <li>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</li> <li>Recognise and use factor pairs and commutativity in mental calculations</li> <li>Multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li> <li>Solve problems involving multiplying and adding, including 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</li> </ol>	<p><b>Fractions</b></p> <p><b>Extend into Band 5</b></p> <ol style="list-style-type: none"> <li>Recognise and show, using diagrams, families of common equivalent fractions</li> <li>Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten</li> <li>Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number</li> <li>Add and subtract fractions with the same denominator</li> <li>Recognise and write decimal equivalents of any number of tenths or hundredths</li> <li>Recognise and write decimal equivalents to <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math> and <math>\frac{3}{4}</math></li> <li>Find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths</li> <li>Round decimals with one decimal place to the nearest whole number</li> <li>Compare numbers with the same number of decimal places up to two decimal places</li> <li>Solve simple measure and money problems involving fractions and decimals to two decimal places</li> </ol>
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2

Y5	<p><b>Place value</b></p> <p>Read write order and compare numbers to at least 1000000. Determine the value of each number</p> <p>Find the difference between the largest and smallest numbers</p> <p>Count forwards and backwards in steps of 10 for any given number up to 1000000</p> <p>Round any number to the nearest 10, 100, 1000, 10000, 100000</p> <p>Solve number problems that involves ordering and comparing numbers to 1000000</p> <p><b>Statistics</b></p> <p>Solve comparison sum and difference problems using information presented in a line graph</p> <p>Complete read and interpret information in tables including timetables</p>	<p><b>Addition and subtraction</b></p> <p>Add and subtract whole numbers with more than 4 digits including using formal written methods</p> <p>Add and subtract numbers mentally with increasingly large numbers</p> <p>Use rounding to check answers and determine level of accuracy</p> <p>Solve addition and subtraction multi step problems deciding which method and operations to use and why</p> <p><b>Multiplication and division</b></p> <p>Identify multiples and factors including finding all the factors of a number and common factors</p> <p>Know the vocab of prime numbers, prime factors and composite numbers</p> <p>Establish whether a number up to 100 is a prime number</p> <p>Multiply numbers up to 4 digits by a 1 digit number using a formal written method</p> <p>Multiple and divide whole numbers and decimals by 10, 100, 1000</p> <p>Solve multiplication and division word problems</p> <p>Recognise and use square and cube numbers and the notation for squared</p>	<p><b>Fractions, Decimals</b></p> <p>Compare and order fractions with denominators of the same multiple</p> <p>Identify and name equivalent fractions including tenths and hundredths</p> <p>Recognise mixed numbers and improper fractions</p> <p>Add and subtract fractions with the same denominator and denominators with the same multiples</p> <p>Multiply proper fractions and mixed numbers by whole numbers</p> <p>Read and write decimal numbers as fraction recognise and use thousandths, hundredths and tenths and decimal equivalents</p> <p>Recognise and use thousandths and relate them to tenths and hundredths</p>	<p><b>Decimals, percentages</b></p> <p>Round decimals with 2 decimal places to the nearest whole number and decimal place.</p> <p>Read, write and order and compare with up to 3 decimal places.</p> <p>Solve number problems with up to 3 decimal places</p> <p>Recognise the % sign and understand that % relates to parts per hundred.</p> <p>Write percentages as a fraction with denominator 100 and as a decimal</p> <p>Recognise the per cent symbol (%) and understand it relates to parts per hundred</p> <p>Solve problems which require knowing percentage and decimal equivalents of half, quarter, fifth, and fraction with denominator of multiple of 10 or 25</p> <p><b>Geometry</b></p> <p>Identify 3D shapes including cubes and cuboids from 2D representations</p> <p>Know angles are measured in degrees – estimate and compare acute, obtuse and reflex angles</p> <p>Draw and measure angles in degrees</p> <p>Identify angles at a point and on a straight line</p> <p>Identify other multiples of 90degrees</p> <p>Use the properties of rectangles to deduce missing lengths and angles</p> <p>Distinguish between regular and irregular polygons based on reasoning.</p>	<p><b>Position and Movement</b></p> <p>Identify, describe and represent the position of a shape following the reflection or translation using the appropriate language and know that the shape has not changed.</p> <p><b>Measurement</b></p> <p>Convert between different units of metric measure (e.g. km and m; cm and m; cm mm; g and kg; l and ml)</p> <p>Understand and use approximate equivalences between metric and imperial units</p>	<p><b>Area and Perimeter</b></p> <p>Measure and calculate the perimeter of composite rectilinear shapes in cm and m</p> <p>Calculate and compare the area of rectangles and use standard units (cm<sup>2</sup>, m<sup>2</sup>) and estimate area of irregular shapes</p> <p>Estimate volume using 1 cm<sup>3</sup> blocks to build cuboids and capacity using water</p> <p><b>Roman Numerals</b></p> <p>Read Roman Numerals to 1000 (M) and recognise years written in Roman Numerals</p> <p><b>Time</b></p> <p>Solve problems involving converting between units of time</p>
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2

<p>Y6</p>	<p><b><u>Number and place value</u></b>          -Read, write, order and compare numbers up to 10,000,000, determining the value of each digit.          -Round any whole number to a required degree of accuracy.          -Use negative numbers in context and calculate across zero.          -Solve number and place value problems ordering and comparing numbers to 10,000,000.          -Demonstrate an understanding of place value including decimals.  <b><u>Multiplication and division</u></b>          -Multiply up to 4 digit by 2 digits using formal method.          -Divide up to 4 digits by 2 digits using formal method of long division (remainders as whole numbers, decimals and fractions)          -Identify common factors, multiples and prime numbers.          -Perform mental calculations with mixed operations and large numbers.          -Solve multi-step problems involving addition, subtraction, multiplication and division.          -Use estimation to check and determine and appropriate degree of accuracy.          -Identify the value of each digit in numbers given to 3dp and multiply and divide these by 10, 100 and 1000.          -Multiply and divide numbers with up to 2dp by whole numbers.          -Use written division methods in cases where the answer has up to 2 dp.</p>	<p><b><u>Fractions</u></b>          -Use common factors to simplify fractions &amp; common multiples to express fractions in the same denomination          -Compare and order fractions (including &gt;1)          -Add and subtract fractions with different denominators and mixed numbers.          -Recall and use equivalence between simple fractions, decimals and percentages.  <b><u>Geometry (2D)</u></b>          -Draw 2D shapes using given dimensions and angles.          -Compare and classify geometric shapes based on their properties and size and find unknown angles in triangles, quadrilaterals and unknown polygons.          -Illustrate and name parts of circles, including radius, diameter and circumference (knowing diameter is twice the radius).          -Recognise angles where they meet at a point, on a straight line or and vertically opposite, and find missing angles.  <b><u>Measures</u></b>          -Recognise that shapes with the same area can have different perimeters and vice versa.          -Recognise where it is possible to use formulae for area and volume.          -Calculate the area of parallelograms and triangles.          -Calculate and compare volume of cubes and cuboids using standard units.</p>	<p><b><u>Fractions</u></b>          -Recall and use equivalence between simple fractions, decimals and percentages.          -Multiply simple pairs of proper fractions.          -Divide proper fractions by whole numbers.          -Associate a fraction with division and calculate decimal fraction equivalents.          -Use knowledge of the order of operations to carry out calculations involving the four operations.  <b><u>Ratio and proportion</u></b>          -Solve problems involving the relative size of two quantities where missing values can be found by using integer multiplication and division facts.          -Solve problems involving the calculation of percentages.          -Solve problems involving similar shapes where the scale factor is known or can be found.          -Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.          -Simplify ratios</p>	<p><b><u>Measures</u></b>          -Solve problems involving calculation and conversion between units of measure (up to 3dp).          -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 and vice versa.          -Convert between miles and km.  <b><u>Geometry (3D &amp; position and movement)</u></b>          -Recognise, describe and build simple 3D shapes, including making nets.          -Describe position on the full co-ordinate grid (all four quadrants).          -Draw and translate simple shapes on the co-ordinate plane and reflect them in the axis.</p>	<p><b><u>Statistic</u></b>          -Interpret and construct pie charts and line graphs and use these to solve problems.          -Calculate and interpret the mean as an average.          -Complete, read and interpret information in tables, including timetables.  <b><u>Algebra</u></b>          -Use simple formulae          -Generate and describe linear number sequences.          -Express missing number problems algebraically.          - Find pairs of numbers that satisfy an equation with two unknowns.          - Enumerate possibilities of combinations of two variables.</p>	<p>Preparation for secondary school          – mathematical investigations and problem solving using all four operations and content learnt across KS2.</p>
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