

Maths – End Points

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	F1	F2	Y1	Y2	Y3	Y4	Y5	Y6
Autumn 1	<p>Place value</p> <p>Recite numbers past 5. Count objects- Saying one number for each item in order: 1,2,3,4,5.</p> <p>Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').</p> <p>Fast recognition of up to 3 objects, without having to count them individually (subitise)</p>	<p>Place value</p> <p>Count beyond 10 to 20.</p> <p>.</p> <p>Count objects, actions and sounds</p> <p>Subitise up to 5</p> <p>Link the number symbol (numeral) with its cardinal number value.</p> <p>Understand the 'one more than/one less than' relationship between consecutive numbers.</p>	<p>Place Value</p> <p>Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.</p> <p>Given a number, identify one more and one less</p> <p>Addition and Subtraction</p> <p>Represent and use number bonds and related subtraction facts within 20.</p>	<p>Place Value</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 <, > and = signs.</p> <p>Addition and Subtraction</p> <p>Add and subtract numbers using concrete objects, pictorial representations, and mentally two two-digit numbers</p> <p>Using concrete objects and pictorial representations, including those involving numbers,</p>	<p>Place Value</p> <p>Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.</p> <p>Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.</p> <p>Addition and Subtraction</p> <p>Add and subtract numbers with up to three digits, using formal written methods</p>	<p>Place Value</p> <p>Recognise the place value of each digit in a three-digit number (hundreds, tens, ones) and use number facts to solve problems</p> <p>Identify, represent and estimate numbers using different representations.</p> <p>Addition and Subtraction</p> <p>Add and subtract numbers with up to 4 digits using the written methods of addition and subtraction where appropriate.</p> <p>Solve addition and subtraction</p>	<p>Place value</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.</p> <p>Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit and solve number problems.</p> <p>Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000.</p> <p>Addition and subtraction</p> <p>Add and subtract whole numbers with more than 4</p>	<p>Place value</p> <p>Use negative numbers in context, and calculate intervals across zero.</p> <p>Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit and use to solve problems.</p> <p>Round any whole number to a required degree of accuracy.</p> <p>Addition and subtraction</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</p> <p>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.</p>

<p>Show 'finger numbers' up to 5.</p> <p>Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.</p> <p>Compare quantities using language: 'more than', 'fewer than'.</p>	<p>Compare quantities up to 10 in different contexts</p>		<p>quantities and measures;</p>	<p>of columnar addition and subtraction.</p> <p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p>	<p>two-step problems in contexts, deciding which operations and methods to use and why.</p>	<p>digits, including using formal written methods (columnar addition and subtraction).</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</p> <p>Add and subtract numbers mentally with increasingly large numbers [for example, 12,462 – 2300 = 10,162].</p> <p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</p> <p>Multiplication and division</p> <p>Multiply numbers up to 4 digits by a one- or two-digit</p>	<p>Multiplication and division</p> <p>Perform mental calculations, including with mixed operations and large numbers.</p> <p>Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.</p> <p>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.</p> <p>Identify common factors, common multiples and prime numbers.</p> <p>Solve problems involving multiplication and division and check using estimation.</p>
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Autumn 2			<p>Place Value Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</p>	<p>Multiplication 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 multiplication (\times), division (\div) and equals (=) signs.</p>	<p>Multiplication and division</p> <p>3MD-1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotative and partitive division.</p>	<p>Multiplication and division</p> <p>4MD-1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.</p>	<p>Fractions</p> <p>Compare and order fractions whose denominators are all multiples of the same number. Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</p> <p>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, $2\frac{5}{5} + 4\frac{4}{5} = 6\frac{5}{5} = 11\frac{5}{5}$].</p> <p>Add and subtract fractions with the same denominator and denominators</p>	<p>Fractions</p> <p>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions > 1.</p> <p>Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.</p> <p>Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $1\frac{1}{4} \times 1\frac{1}{2} = 1\frac{1}{8}$].</p> <p>Divide proper fractions by whole numbers [for example, $1\frac{1}{3} \div 2 = 1\frac{1}{6}$].</p>
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							that are multiples of the same number. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	
Spring 1			<p>Place Value to 100 Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens.</p>	<p>Division Solve problems using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in context. Statistics Interpret and present data using bar charts, pictograms and tables. Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using</p>	<p>Multiply two-digit numbers by 10, and divide three-digit multiples of 10 by 10. Measures: Length, Perimeter and area Measure the perimeter of simple 2-D shapes.</p>	<p>4MD–2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. 4MD–3 Understand and apply the distributive property of multiplication. Measures: Length, Perimeter and area Measure and calculate the perimeter of a</p>	<p>Decimals and percentages 5NPV–2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and nonstandard partitioning. 5NPV–3 Reason about the location of any number with up to 2 decimals places in</p>	<p>Decimals and percentages Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places. Multiply one-digit numbers with up to two decimal places by whole numbers. Use written division methods in cases where the answer has up to two decimal places. Solve problems which require answers to be</p>

			information presented in scaled bar charts and pictograms and tables.			<p>rectilinear figure (including squares) in centimetres and metres.</p>	<p>the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each. 5NPV–4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.</p>	<p>rounded to specified degrees of accuracy. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p>
Spring 2			<p>Geometry Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another. Fractions Understanding and finding one</p>	<p>Geometry Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line. Fractions Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a length, shape, and set of objects or quantity.</p>	<p>Fractions 3 Reason about the location of fractions less than 1 in the linear number system. 3 Identify unit and non-unit fractions.</p>	<p>Fractions 4F–1 Reason about the location of mixed numbers in the linear number system. 4F–2 Convert mixed numbers to improper fractions and vice versa.</p>	<p>Converting units of measure Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre). Understand and use approximate equivalences</p>	<p>Converting units of measure Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a</p>

			half of shapes and quantities.	Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.	<p>3 Add and subtract fractions with the same denominator, within 1 whole.</p> <p>Measure</p> <p>Measure, compare, add and subtract: Length (m/cm/mm) Mass (kg/g) Volume/capacity (l/ml)</p>	<p>4F-3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers, for example</p> <p>Measure</p> <p>Convert between different units of measure [for example, kilometre to metre; hour to minute]</p>	<p>between metric units and common imperial units such as inches, pounds and pints.</p> <p>Measurement</p> <p>Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.</p> <p>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.</p> <p>Statistics</p>	<p>smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places.</p> <p>Convert between miles and kilometres</p> <p>Measurement</p> <p>Recognise that shapes with the same areas can have different perimeters and vice versa.</p> <p>Recognise when it is possible to use formulae for area and volume of shapes. Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³)</p> <p>Statistics</p> <p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</p>
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							Interpret pie charts and line graphs and use these to solve problems. Interpret and construct pie charts and line graphs and use these to solve problems.	Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.
Summer 1			<p>Geometry</p> <p>Recognise and name common 2-D and 3-D shapes, including: 2-D shapes (for example, rectangles (including squares), circles and triangles) 3-D shapes (for example, cuboids (including cubes), pyramids and spheres.</p> <p>Time</p> <p>Recognise and use language relating to dates, including days of the week, weeks, months and years.</p>	<p>Geometry – Position and movement.</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)</p> <p>Time</p> <p>Tell and write the time to five minutes,</p>	<p>Decimals</p> <p>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.</p> <p>Time</p> <p>Estimate and read time with increasing accuracy to the nearest minute; record and compare time in seconds, minutes and hours; use vocabulary such as o'clock,</p>	<p>Decimals</p> <p>Round decimals with one decimal place to the nearest whole number.</p> <p>Compare numbers with the same number of decimal places up to two decimal places.</p> <p>Solve simple measure and money problems involving fractions and decimals to two decimal places.</p> <p>Time</p>	<p>Geometry and shape</p> <p>Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. Draw given angles, and measure them in degrees. angles at a point and one whole turn (total 360); angles at a point on a straight line and $\frac{1}{2}$ a turn</p>	<p>Geometry and shape</p> <p>Draw 2-D shapes using given dimensions and angles. Recognise, describe and build simple 3-D shapes, including making nets. Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. Illustrate and name parts of circles, including radius, diameter and circumference and know that the</p>

			Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	including quarter past/to the hour and draw the hands on a clock face to show these times. Know the number of minutes in an hour and number of hours in a day	a.m./p.m., morning, afternoon, noon and midnight. an analogue clock and 12-hour and 24-hour clocks; including roman numerals. Know the number of seconds in a minute and the number of days in each month, year and leap year	Read, write and convert time between analogue and digital 12- and 24-hour clocks. Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	(total 180) other multiples of 90. Use the properties of rectangles to deduce related facts and find missing lengths and angles.	diameter is twice the radius. Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
Summer 2			Measure Compare, describe and solve practical problems for: lengths and heights, mass/weight, capacity, volume and time Measure and record lengths and heights, mass/weight,	Measure <i>Choose and use appropriate standard units to estimate and measure to the nearest appropriate unit.</i> Length/height in any directions. Mass (kg/g) Compare and order lengths, mass, volume/capacity and record the	Geometry Draw 2-D shapes and make 3-D shapes using modelling materials. Recognise 3-D shapes in different orientations and describe them. Recognise angles as a property of shape or a	Geometry Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. Identify acute and obtuse angles and compare and order angles up to two right angles by size.	To consolidate Four operations and decimals.	Investigations and project work

			capacity, volume and time	results using >, < and =.	description of a turn. 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 are greater than or less than a right angle.	Identify lines of symmetry in 2-D shapes presented in different orientations. Complete a simple symmetric figure with respect to a specific line of symmetry. Describe positions on a 2-D grid as coordinates in the first quadrant.		
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