

Singlewell Primary School – Maths Curriculum Overview 2026/2027

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
EYFS	Getting to know you NC: Match, sort and compare PD: Motivation & Curiosity Autumnal class walk around the school grounds looking for different colour/shape leaves, stones, sticks, pinecones etc. Explore different ways the items can be sorted/organised. NC: Talk about measure and patterns. PD: Confidence & Independence ~ children to explore different ways of measuring (capacity, mass and length) in provision using scales, filling containers with lentils, measuring and comparing height amongst peers.	It's me, 1-2-3 NC: have a deep understanding of numbers 1-10 Children to play a game where they have to get into groups of 1, 2 or 3. PD: Building relationships ~ tour around the school in groups, where can you see 1, 2, 3 of something? Circles and triangles NC: Explore and represent patterns within numbers up to 10, including even and odd numbers. PD: Confidence & Independence ~ children to draw large & small circles and triangles in chalk on the playground. NC: Subitise up to 5 PD: Managing self ~ children to play a game where they have to get into groups of 1, 2, 3, 4 or 5 before the 'crocodile' comes. Shapes with 4 sides PD: Resilience & Perseverance ~ use elastic bands/loom bands/peg boards to create different 4 sided shapes.	Alive in 5 NC: Subitise up to 5 ~ have a deep understanding of numbers 1-10 Playing a subitising game with a partner using numbers up to 5. PD: Confidence & Independence complete different actions in different quantities up to 5. E.g., 5 star jumps, 4 hops, 3 bunny hops, 2 spins, 1 clap etc. Mass and capacity NC: Match, sort and compare Making playdough cupcakes and weighing to see which is heavier. PD: Motivation & Curiosity Build a "measuring station" with cubes, ribbons, spoons, and containers for free exploration. Growing 7,8,9 NC: Compare quantities to 10 ~ have a deep understanding of numbers 1-10 Children explore the composition of numbers 7, 8 and 9 using Numicon pieces. PD: Resilience & Perseverance a number Easter egg hunt around the field. Children to find eggs with different magnetic numbers (7,8,9) inside. Can they sort the eggs back in class?	Length, height and time NC: Talk about measure and patterns Measuring individual children with a piece of string, sticking the string to a wall for children to see and visually compare. PD: Motivation & Curiosity children to be given a length of ribbon (or a 30cm ruler). Can they find items longer or shorter than the length provided? Building 9 and 10 NC: have a deep understanding of numbers 1-10 Counting songs that explore one more or one less e.g., "10 Flying Men in a Flying Saucer." PD: Managing self Number bonds to 10. Children to create a rainbow painting, linking different numbers that make 10 by one colour. Explore 3-D shapes NC: Match, sort and compare PD: Building Relationships children to create monsters/aliens/robots using different junk modelling, talking about which shapes would be best to use	To 20 and beyond NC: Count aloud beyond 20 PD: Resilience & Perseverance children to use Numicon pieces to create 'teen' numbers. How many now? NC: Count aloud beyond 20 PD: Building Relationships & collaboration work as a partner, throwing beanbags into a hoop one at a time. If child A threw in 3 beanbags, can child B carry on counting to find out the total? NC: Manipulate, choose and decompose PD: Motivation & Curiosity children use 2D shapes/foam shape stickers to create different pictures, choosing appropriate 2D shapes for different reasons.	NC: Sharing and grouping PD: Building Relationships children to role-play a teddy bear's picnic, sharing out different loose parts as imaginary food items fairly for the teddies. Working together NC: Visualise, build & make connections PD: Building Relationships & collaboration children to go on a tour of the school in groups, working with a partner to draw a map of the school for new YR pupils.

Year 1	<u>NC: Number – Place Value (within 10)</u> 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 PD: Curiosity & Engagement Choosing their own manipulatives (cubes, numicon, etc.) to show a number.	<u>NC: Number – Addition and Subtraction</u> read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs add and subtract one-digit and two-digit numbers to 20, including 0 solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$ PD: Managing Feelings / Self-Regulation trying different strategies (counting on, using fingers) even when the first method doesn't work. <u>NC: Geometry:</u> recognise and name common 2-D and 3-D shapes PD: Confidence & Independence Go on a classroom or playground hunt for 2D and 3D shapes in the environment	<u>NC: Number – Place Value (within 20)</u> read and write numbers from 1 to 20 in numerals and words. PD: Collaboration & Communication Explaining their thinking to a partner using mathematical language. <u>NC: Number – Addition and Subtraction (within 20)</u> represent and use number bonds and related subtraction facts within 20 add and subtract one-digit and two-digit numbers to 20, including 0 PD: Collaboration & Communication Use real objects (toys, counters, fruit) to act out addition and subtraction stories, e.g., “I have 8 apples. I eat 3. How many left?”	<u>NC: Number – Place Value</u> count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number PD: Confidence & Independence Sharing how they know a number has, for example, “3 tens and 2 ones.” <u>NC: Measurement:</u> compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] PD: Curiosity & Engagement Children explore the classroom or playground to find “things longer/shorter than my pencil.” <u>NC: Measurement:</u> compare, describe and solve practical problems for mass/weight [for example, heavy/light, heavier than, lighter than] capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] PD: Collaboration & Communication children to hold two objects and explain which is lighter/heavier	<u>NC: Number – Multiplication and Division</u> 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 <u>NC: Fractions</u> recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity PD: Resilience & Perseverance Read picture books like <i>Give Me Half!</i> and discuss fairness in sharing. <u>NC: Geometry:</u> describe position, direction and movement, including whole, half, quarter and three-quarter turns PD: Collaboration & Communication Give and follow instructions to move a teddy around the classroom (“Move Teddy under the table”).	<u>NC: Number – Place Value</u> count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s PD: Confidence & Independence Reading and writing larger numbers aloud. <u>NC: Measurement:</u> recognise and know the value of different denominations of coins and notes PD: Collaboration & Communication role play area: set up a classroom shop to “buy” and “sell” items using coins. <u>NC: Measurement</u> compare, describe and solve practical problems for time recognise and use language relating to dates, including days of the week, weeks, months and years tell the time to the hour and half past the hour and draw the hands on a clock face to show these times PD: Confidence & Independence Talk about events in the day (“I brush my teeth at 7 o'clock”) to sequence time
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Year 2	<u>NC: Number – Place Value</u> recognise the place value of each digit in a two-digit number (10s, 1s) <u>PD: Resilience & Perseverance</u> Oracy: reading and writing larger numbers aloud <u>NC: Addition and Subtraction</u> solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures <u>PD: Confidence & Independence</u> Recognising when to use mental methods or written ones. <u>NC: Geometry</u> identify and describe the properties of 2-D & 3D shapes, including the number of sides, lines of symmetry, faces, vertices. <u>PD: Curiosity & Engagement</u> Use magnifying glasses to “investigate” edges, faces, and vertices of real objects.	<u>NC: Number – Addition and Subtraction</u> recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100, add and subtract numbers using concrete objects, pictorial representations, and mentally, including: - a two-digit number and 1s - a two-digit number and 10s - 2 two-digit numbers - adding 3 one-digit numbers show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems <u>PD: Resilience & Perseverance</u> To check calculations are correct by using the inverse, to solve problems without giving up. <u>NC: Geometry: Shape</u> identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] compare and sort common 2-D and 3-D shapes and everyday objects <u>PD: Collaboration & Communication</u> Use building blocks or construction toys to create models from 3D shapes.	<u>NC: Measurement: Money</u> solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value Find different combinations of coins that equal the same amounts of money <u>PD: Confidence & Independence</u> Spend exactly £1.50” using different coin combinations in the class shop. <u>NC: Number – Multiplication and Division</u> recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers <u>PD: Curiosity & Engagement</u> Organise objects or children into teams — e.g. “We have 20 cones; how many in each team of 5?”	<u>NC: Measurement: Length and Height</u> compare and order lengths. Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm) <u>PD: Collaboration & Communication</u> create class height chart by backing classroom door or wall with backing paper <u>NC: Measurement: Mass, Capacity and Temperature</u> choose and use appropriate standard units to estimate and measure mass (kg/g); temperature (°C); capacity (litres/ml) Compare and order lengths, mass, volume/capacity and record the results using >, < and = <u>PD: Resilience & Perseverance</u> Children weigh and measure classroom items, recording and comparing results.	<u>NC: Fractions</u> Recognise, find, name and write fractions [Fraction:1/3], [Fraction:1/4], [Fraction:2/4] and [Fraction:3/4] of a length, shape, set of objects or quantity Write simple fractions, for example [1/2] of 6 = 3 and recognise the equivalence of [2/4] and [1/2] <u>PD: Confidence & Independence</u> Cut cakes or biscuits into equal parts; link fractions to real quantities. <u>NC: Measurement: Time</u> Compare and sequence intervals of time Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times Know the number of minutes in an hour and the number of hours in a day <u>PD: Curiosity & Engagement</u> Make simple paper plate clocks and show o'clock and half past times.	<u>NC: Statistics</u> interpret and construct simple pictograms, tally charts, block diagrams and tables Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity Ask-and-answer questions about totalling and comparing categorical data <u>PD: Curiosity & Engagement</u> Record favourite fruit options in tally charts, then represent on a graph. <u>NC: Geometry: Position and Direction</u> order and arrange combinations of mathematical objects in patterns and sequences Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise) <u>PD: Collaboration & Communication</u> Play “Simon Says” or “Robot Instructions” using turns and directions.
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Year 3	<u>NC: Number – Place Value</u> recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) PD: <i>Curiosity & Engagement</i> applying place value to solve real-life problems (e.g. money or measurement). <u>NC: Number – Addition and Subtraction</u> add and subtract numbers mentally, including: - a three-digit number and 1s - a three-digit number and 10s - a three-digit number and 100s add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction	<u>NC: Number – Addition and Subtraction</u> add and subtract numbers mentally, including: - a three-digit number and 1s - a three-digit number and 10s - a three-digit number and 100s add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction estimate the answer to a calculation and use inverse operations to check answers solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction PD: <i>Curiosity & Engagement</i> Deciding whether to estimate before calculating to check if an answer is reasonable <u>NC: Number – Multiplication and Division</u> recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	<u>NC: Number – Multiplication and Division</u> recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables 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 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 PD: <i>Confidence & Independence</i> Spot real-life examples of equal groups (e.g., egg boxes, wheels, hands). <u>NC: Measurement: Length and Perimeter</u> measure the perimeter of simple 2-D shapes PD: <i>Curiosity & Engagement</i> use trundle wheels to predict the perimeter of a netball court	<u>NC: Fractions</u> 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 recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators recognise and show, using diagrams, equivalent fractions with small denominators PD: <i>Collaboration and communication</i> Create patterns using fractional parts (e.g., $\frac{1}{2}$ red, $\frac{1}{4}$ blue, $\frac{1}{4}$ yellow). <u>NC: Measurement: Mass and Capacity</u> measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) PD: <i>Confidence & Independence</i> using scales estimate and weigh classroom objects	<u>NC: Fractions</u> add and subtract fractions with the same denominator within one whole [for example, $[\text{Fraction: } 5/7] + [\text{Fraction: } 1/7] = [\text{Fraction: } 6/7]$] compare and order unit fractions, and fractions with the same denominators PD: <i>Curiosity & Engagement</i> Use number lines outdoors or with string to place and compare fractions. <u>NC: Measurement: Money</u> add and subtract amounts of money to give change, using both £ and p in practical contexts PD: <i>Confidence & Independence</i> Estimate time or money in practical scenarios e.g. duration of 1 minute <u>NC: Measurement: Time</u> tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks 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, am/pm, morning, afternoon, noon and midnight know the number of seconds in a minute, number of days in each month, year and leap year compare durations of events [the time taken by particular events or tasks] PD: <i>Curiosity & Engagement</i> investigate timetables or daily schedules, calculating durations.	<u>NC: Measurement: Shape</u> 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 description of a turn identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle identify horizontal and vertical lines and pairs of perpendicular and parallel lines PD: <i>Curiosity & Engagement</i> Go outside to find right, acute, and obtuse angles in the environment. <u>NC Statistics</u> 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 information presented in scaled bar charts and pictograms and tables PD: <i>Collaboration & Communication</i> Work in groups to collect, present, and explain data to the class e.g. most popular lunch selection, preferred playground equipment
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Year 4	NC Link:: Number - Place Value recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) PD: Collaboration & Communication justifying orally why choice was made to round up or down NC Link:: Number: Addition and Subtraction add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate estimate and use inverse operations to check answers to a calculation solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why PD: Confidence & Independence Checking calculations independently using inverse operations.	NC Link:: Measurement: Area find the area of rectilinear shapes by counting squares PD: Resilience & Perseverance Calculate areas for planting beds or playground sections; present a plan with dimensions. NC Link:: Number - Multiplication and Division recall multiplication and division facts for multiplication tables up to 12 × 12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 number PD: Curiosity & Engagement STEM skills: Build Lego or block structures using multiplication patterns (e.g., 4 layers of 6 bricks).	NC Link:: Number - Multiplication and Division recognise and use factor pairs and commutativity in mental calculations multiply two-digit and three-digit numbers by a one-digit number using formal written layout solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects PD: Collaboration and communication Design an outdoor space with given dimensions and calculate total perimeter/area.	NC Link:: Fractions recognise and show, using diagrams, families of common equivalent fractions 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 add and subtract fractions with the same denominator PD: Curiosity & Engagement Match equivalent fractions or fractions with the same denominator. NC Link:: Number - Decimals recognise and write decimal equivalents of any number of tenths or hundreds recognise and write decimal equivalents to $[1/4, \frac{1}{2}, \frac{3}{4}]$ 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 PD: Curiosity & Engagement Explore price tags and receipts, comparing and ordering prices.	NC Link:: Decimals round decimals with 1 decimal place to the nearest whole number compare numbers with the same number of decimal places up to 2 decimal places solve simple measure and money problems involving fractions and decimals to 2 decimal places PD: Curiosity & Engagement STEM: Use decimals in science experiments (e.g., measuring liquids). NC Link:: Measurement: Money estimate, compare and calculate different measures, including money in pounds and pence PD: Confidence & Independence Estimate time or money in practical scenarios e.g. cost of items in a shopping basket NC Link:: Measurement: Time 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 PD: Confidence & Independence Calculate time intervals for sports, experiments, or events.	NC Link:: Geometry: shape 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 2 right angles by size; 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 PD: Collaboration and communication Classify shapes & justify choice of how they are grouped NC Link:: Statistics interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs PD: Collaboration and communication collect a temperature reading every hour & generate a line graph to reflect results NC Link:: Geometry describe positions on a 2-D grid as coordinates in the first quadrant describe movements between positions as translations of a given unit to the left/right and up/down plot specified points and draw sides to complete a given polygon PD: Confidence & Independence Create mirror-image drawings using grids or mirrors.
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Year 5	<u>NC: Number – Place Value</u> read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit PD: Curiosity & Engagement Investigating real-life examples of large numbers or decimals (population, money, measurements). <u>NC: Number – Addition and Subtraction</u> add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) add and subtract numbers mentally with increasingly large numbers use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why PD: Collaboration and communication Planning and organising steps in a complex problem.	<u>NC: Number – Multiplication and Division</u> identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers establish whether a number up to 100 is prime and recall prime numbers up to 19 multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes PD: Collaboration and communication Pupils plan and lead a mini-lesson for younger children (e.g. introduction to short division or short multiplication to year 3, arrays for times tables for year 2). <u>NC: Fractions</u> compare and order fractions whose denominators are all multiples of the same number identify, name and write equivalent fractions of a given fraction, including tenths and hundredths recognise mixed numbers and improper fractions and convert from one form to the other > 1 as a mixed number eg, $2/5 + 4/5 = 6/5 = 1\frac{1}{5}$ add and subtract fractions with the same denominator, and	<u>NC: Number – Multiplication and Division</u> 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 multiply and divide numbers mentally, drawing upon known facts 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 solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates PD: Curiosity & Engagement Explore patterns (e.g., square and cube numbers) and present findings. <u>NC: Fractions</u> multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	<u>NC: Decimals and Percentages</u> read and write decimal numbers as fractions eg, $0.71 = 71/100$ recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents round decimals with 2 decimal places to the nearest whole number and to 1 dp read, write, order and compare numbers with up to 3 dp solve problems involving number up to 3 dp recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25 PD: Collaboration and communication Meeting with Mrs Catt to calculate weekly attendance for both year 5 classes <u>NC: Measurement: Perimeter and Area</u> measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	<u>NC: Geometry: Shape</u> 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 ($^{\circ}$) identify: angles at a point and 1 whole turn (total 360°) angles at a point on a straight line and half a turn (total 180°) other multiples of 90° use the properties of rectangles to deduce related facts & find missing lengths & angles distinguish between regular and irregular polygons based on reasoning about equal sides and angles PD: Curiosity & Engagement Measure real-life angles in the classroom or playground (e.g., door hinges, ramps). <u>NC: Geometry: Position and Direction</u> 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	<u>NC: Number – Negative Numbers</u> interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0 PD: Collaboration and communication Solve practical scenarios (e.g., "It's -3°C in the morning and rises by 5°C — what's the new temperature?"). <u>NC: Measurement</u> convert between different units of metric measure: km and m; cm and m; cm and mm; gram and kg; l and ml understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints solve problems involving converting between units of time estimate volume eg, using 1 cm^3 blocks to build cuboids (including cubes) & capacity (using water) use all four operations to solve problems involving measure length, mass, volume, money using decimal notation, including scaling PD: Confidence & Independence Convert ingredients from grams to kilograms or millilitres to litres when scaling recipes up or 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		denominators that are multiples of the same number round decimals with 2 decimal places to the nearest whole number and to 1 dp read, write, order and compare numbers with up to 3 dp solve problems involving number up to 3 dp recognise the per cent symbol (%) and understand it relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction solve problems which require knowing percentage and decimal equivalents of $1/2$, $\frac{1}{4}$, $\frac{3}{4}$, $1/3$, $2/5$, $3/5$ and those fractions with a denominator of a multiple of 10 or 25 PD: Curiosity & Engagement Research where fractions are used in real life (music, sports, design, data).		calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm²) and square metres (m²), and estimate the area of irregular shapes PD: Confidence & Independence Plan a trip (e.g. Year 5's visit to local church or Year 4's to the Gurdwara or YR to the post box) using maps and distances. NC: Measurement: Statistics solve comparison, sum and difference problems using information presented in a line graph complete, read and interpret information in tables, including timetables PD: Collaboration and communication Conduct a survey (e.g., "Favourite apps") and present results.	PD: Curiosity & Engagement Create symmetrical or translated designs using four-quadrant grids.	
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Year 6	<u>NC: Number – Place Value</u> read, write, order and compare numbers up to 10,000,000 and determine the value of each digit <u>PD: Collaboration and communication</u> Guiding younger pupils in understanding place value through peer mentoring. <u>NC: Number – Addition, Subtraction, Multiplication and Division</u> multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication 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, fractions, or by rounding, as appropriate for the context 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 perform mental calculations, including with mixed operations and large numbers	<u>NC: Fractions</u> use common factors to simplify fractions; use common multiples to express fractions in the same denomination compare and order fractions, including fractions >1 add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = 1/8$ divide proper fractions by whole numbers for example, $1/3 \div 2 = 1/6$ identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places use written division methods in cases where the answer has up to 2 decimal places solve problems which require answers to be rounded to specified degrees of accuracy <u>PD: Collaboration and communication</u> Lead a “Fraction Masterclass” for younger pupils. <u>NC: Measurement – Converting Units</u> solve problems involving the	<u>NC: Ratio and Proportion</u> solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison 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 <u>PD: Confidence & Independence</u> explore the perfect glass of squash using and testing squash to water ratio <u>NC: Algebra</u> use simple formulae generate and describe linear number sequences express missing number problems algebraically find pairs of numbers that satisfy an equation with 2 unknowns enumerate possibilities of combinations of 2 variables <u>PD: Collaboration and communication</u> Use algebraic reasoning to crack secret	<u>NC: Fractions (including decimals and percentages)</u> associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, [Fraction:3/8]] recall and use equivalences between simple fractions, decimals and percentages, including in different contexts <u>PD: Confidence & Independence</u> Create geometric designs using fractions or percentages of colour. Calculate proportions precisely. <u>NC: Measurement – area, perimeter, volume</u> recognise that shapes with the same areas can have different perimeters and vice versa recognise when it is possible to use formulae for area and volume of shapes calculate the area of parallelograms and triangles calculate, estimate and compare volume of cubes and cuboids using standard units: (cm³) (m³), and extending to other units [mm³ and km³] <u>PD: Curiosity & Engagement</u> Explore volume and capacity in a “Water Efficiency Challenge.”	<u>NC: Geometry – Shape</u> 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 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 <u>PD: Curiosity & Engagement</u> Explore art through tessellations and rotational symmetry (inspired by Escher). <u>NC: Geometry – Position and Direction</u> describe positions on the full coordinate grid (all 4 quadrants) draw and translate simple shapes on the coordinate plane, and reflect them in the axes <u>PD: Curiosity & Engagement</u> use Scratch for coding and coordinates	Themed Projects, consolidation of previously taught topics and problem solving.
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	identify common factors, common multiples and prime numbers use their knowledge of the order of operations to carry out calculations involving the 4 operations solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why solve problems involving addition, subtraction, multiplication and division use estimation to check answers to calculations PD: Curiosity & Engagement Ensuring accuracy of results in context (e.g. budgeting, measurement).	calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate 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 decimal places convert between miles and kilometres PD: Curiosity & Engagement Work in groups to scale up/down a recipe using conversions between grams/kilograms and millilitres/litres.	codes or solve "escape room" puzzles. NC: Decimals multiply one-digit numbers with up to 2 decimal places by whole numbers PD: Curiosity & Engagement Compare currencies using decimal notation and real exchange rates.	NC: Statistics interpret and construct pie charts and line graphs and use these to solve problems calculate and interpret the mean as an average PD: Confidence & Independence Collect data to present as a bar graph/pie chart/line graph to represent secondary school choices	
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