



MATHEMATICS SUBJECT PROGRESSION (CONDENSED)

Key concepts / Strand	E.Y.F.S	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number (Place value)		To know how to count to and across 100, forwards and backwards, starting with any number.		To know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.	To know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four	Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01.	To understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).
Number (Place value)			Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and nonstandard partitioning.	Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.	Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and nonstandard partitioning.	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.	Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and nonstandard partitioning.
Number (Place value)		Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$	Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.	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.	Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.	Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.	Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.

Number (Place value)				Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.	Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.	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	Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.
Number (Place value)						Convert between units of measure, including using common decimals and fractions.	
Number facts		Develop fluency in addition and subtraction facts within 10	Secure fluency in addition and subtraction facts within 10, through continued practice.	Secure fluency in addition and subtraction facts that bridge 10, through continued practice.			
Number facts		Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.		Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.	Recall multiplication and division facts up to 12 X 12, and recognise products in multiplication tables as multiples of the corresponding number.	Secure fluency in multiplication table facts, and corresponding division facts, through continued practice	
Number facts					Solve division problems, with two-digit dividends and one-digit divisors, which involve remainders, and interpret remainders appropriately according to the context.		
				Apply place-value knowledge to known	Apply place-value knowledge to known	Apply place-value knowledge to known	

				additive and multiplicative number facts (scaling facts by 10).	additive and multiplicative number facts (scaling facts by 100)	additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth)	
Number facts (addition and subtraction)		Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.	Add and subtract across 10.	Calculate complements to 100.			Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).
Number facts (addition and subtraction)		Read, write and interpret equations containing addition +, subtraction - and equals = symbols, and relate additive expressions and equations to real-life contexts.	Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?".	Add and subtract up to three-digit numbers using columnar methods.			Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.
Number facts (addition and subtraction)			Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number	Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.			Solve problems involving ratio relationships
Number facts (addition)			Add and subtract within 100 by applying related one-				4 Solve problems with 2 unknowns.

and subtraction)			digit addition and subtraction facts: add and subtract any 2 two-digit numbers				
Number facts (multiplication and division)			Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.	Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.	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.	Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.	For year 6, MD ready-to-progress criteria are combined with AS ready to-progress criteria (please see above).
Number facts (multiplication and division)			Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).		Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication .	Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors	
Number facts (multiplication and division)					Understand and apply the distributive property of multiplication .	Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.	
Number facts (multiplication and division)						Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.	
Fractions				Interpret and write proper fractions to represent 1 or several parts of a whole that is			Recognise when fractions can be simplified, and use common factors to

				divided into equal parts.			simplify fractions
Fractions				Find unit fractions of quantities using known division facts (multiplication tables fluency).		Find non-unit fractions of quantities	Express fractions in a common denominator and use this to compare fractions that are similar in value
Fractions				Reason about the location of any fraction within 1 in the linear number system.	Reason about the location of mixed numbers in the linear number system		Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denominator as a comparison strategy.
Fractions					Convert mixed numbers to improper fractions and vice versa.	Find equivalent fractions and understand that they have the same value and the same position in the linear number system.	
Fractions				Add and subtract fractions with the same denominator, within 1.	Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers	Recall decimal fraction equivalents for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, and $\frac{1}{10}$, and for multiples of these proper fractions.	
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.	Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties	Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.		Compare angles, estimate and measure angles in degrees ($^{\circ}$) and draw angles of a given size.	

Geometry						Compare areas and calculate the area of rectangles (including squares) using standard units.	
Geometry		Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations		Draw polygons by joining marked points, and identify parallel and perpendicular sides	Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.		Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.
Geometry					Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.		
Geometry					Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.		

Numbers:

- Count reliably with numbers from 1 to 20, place them in order and say which number is one more or one less than a given number.
- Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer.
- They solve problems, including doubling, halving and sharing.

Shape, space and measures:

- Use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems.
- They recognise, create and describe patterns.
- They explore characteristics of everyday objects and shapes and use mathematical language to describe them.

New maths vocabulary for EYFS

Number and place value	Addition and subtraction	Multiplication and division	Measure	Geometry (position and direction).	Geometry (properties of shape).	Fractions	Problem Solving
<p>Number: Number, zero, one, two, three..... twenty, Twenty-one, twenty-two... one hundred. Count, count to, count on, count back, Count in ones, twos, fives, tens Is the same as, More / less, Odd, even, few, pattern, pair.</p> <p>Place Value: Ones, tens, digit, the same number as, as many as, More, larger, bigger, greater, fewer, smaller, less, fewest, least, smallest, Most, biggest, largest, greatest, one more ten more, One less, ten less, compare, order, size, first, second third.....twentieth. Last, before, after, next, between.</p> <p>Estimating: Guess, how many? Estimate, nearly, close to, about the same as, just over, just under, too many, too few, enough, not enough.</p>	<p>Add, more, and, make, sum, total, altogether, double, one more, two more... ten more, How many more to make...? How many more is... than....? How much more is...? Take away, how many are left / left over? How many have gone? One less, two less, ten less.... How many fewer is.... Than....? Difference between</p>	<p>Sharing, doubling, halving, number patterns.</p>	<p>Measure, size, compare, guess, estimate, enough, not enough, too much, too little, too many, too few, nearly, close to, about the same as, just over, just under.</p> <p>Length: Metre, length, height, width, depth, long, short, tall, high, low, wide, narrow, thick, thin, longer, shorter taller, higher, longest, shortest, tallest, highest, far, near, close.</p> <p>Weight: Weigh. Balances, heavy, light, heavier than,</p>	<p>Position, over, under, above, below, top, bottom, side, on, in, outside, inside, around, in front, behind, front, back, beside, next to, opposite, apart, between, middle, edge, corner, direction, left, right, up, down, forwards, backwards, sideways, across, next to, close, near, far, along, through, to, from, towards, away from, movement, slide, roll, turn, stretch, bend, whole turn, half turn.</p>	<p>Shape, pattern, flat, curved, straight, round, hollow, solid, sort, make, build, draw, size, bigger, larger, smaller, symmetrical pattern, repeating pattern, match.</p> <p>2D shape: Corner, side, rectangle. Circle, triangle.</p> <p>3D shape: Face, edge, vertex, vertices, cube, pyramid, sphere, cone.</p>	<p>Parts of a whole, half, quarter,</p>	<p>Pattern, puzzle, what could we try next? How did you work it out? Recognise, describe, draw, compare, sort.</p>

EYFS

lighter than, heaviest, lightest, scales,

Capacity and volume:

Full, empty, half full, holds, container.

Time:

Time, days of the week, Monday, Tuesday, day, week, birthday, holiday, morning, afternoon, evening, night, bedtime, dinner time, play time, today, yesterday, tomorrow, before, after, next, last, now, soon, early, late, quick, quicker, quickest, quickly, slow, slower, slowest, slowly, old, older, oldest, new, newer, newest, takes longer, takes less time, hour, o'clock, clock, watch, hands,

Money:

Money, coin,

penny,
pence,
pound,
price, cost,
buy, sell,
spend,
spent,
pay.

Year 1

Number and Place Value

- Count forward and back, to and across 100 from any number
- Count read and write to 100
- 1 more, 1 less
- Represent numbers
- Read and write to 20 in numerals and words

Addition and Subtraction

- Interpret statements with +, - & = symbols
- Represent and use bonds to subtraction facts to 20
- Add and subtract 1 and 2 digit numbers to 20
- Solve one step problems
- Solve missing number problems

Multiplication and Division

- One step problems using CPA and arrays

Fractions

- Recognise, find, name a half as two equal parts.
- Find, recognise and name a quarter of objects, shapes and quantities

Measurement

- Compare, describe and solve practical problems for: length, height, mass/weight, capacity and volume and time
- Measure and record; length, height, mass/weight, capacity, volume and time
- Recognise and know the value of coins
- Sequence chronologically
- Recognise and use language related to dates
- Tell the time to the hour and half past

Geometry – Properties of shape

- Recognise and name common 2D and 3D shapes

Geometry – Position and Direction

- Describe position, direction and movement, including whole, half, quarter and three quarter turn.

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New maths vocabulary for year 1

Number and place value	Addition and subtraction	Multiplication and division	Measure	Geometry (position and direction)	Geometry (properties of shape)	Fractions	Problem solving
Ten more/less	Number bonds	Odd, even	Full, half full, empty	Position	Group, sort	Whole	Listen, join in
Digit	Number line	Count in twos, threes, fives	Holds	Over, under, underneath, above, below, top, bottom, side	Cube, cuboid, pyramid,	Equal parts, four equal parts	Say, think, imagine, remember
Numeral	Add, more, plus, make, sum, total, altogether	Count in tens (forwards from/backwards from)	Container	On, in, outside, inside	Sphere, cone, cylinder, circle, triangle, square	One half, two halves	Start from, start with, start at
Compare (In) order/a different order	Inverse	How many times?	Weigh, weighs, balances	Around, in front, behind	Shape	A quarter, two quarters	Look at, point to Put, place, fit
Size	Double, near double	Lots of, groups of	Heavy, heavier, heaviest, light, lighter, lightest	Front, back	Flat, curved, straight, round		Arrange, rearrange

Value	Equals, is the same as (including equals sign)	Once, twice, three times, five times	Time	Before, after	Corner (point, pointed)		Change, change over
Between, halfway between	Difference between	Multiple of, times, multiply, multiply by	Days of the week	Beside, next to, Opposite	Face, side, edge		Split, separate
Above, below	How many more to make...?, how many more is...than...?, how much more is...?	Repeated addition	Seasons	Apart	Make, build, draw		Carry on, continue, repeat, what comes next?
	Subtract, take away, minus	Array, row, column	Day, week, month, year, weekend	Between, middle, edge, centre			Find, choose, collect, use, make, build
	How many fewer is...than...?, how much less is...?	Double, halve	Birthday, holiday	Corner			Tell me, describe, pick out, talk about, explain, show me
		Share, share equally	Morning, afternoon, evening, night, midnight	Direction			Read, write, record, trace, copy, complete, finish, end
		Group in pairs, threes, etc.	Bedtime, dinnertime, playtime	Journey			Fill in, shade, colour, tick, cross, draw, draw a line between, join (up), ring, arrow
		Equal groups of	Today, yesterday, tomorrow	Left, right, up, down, forwards, backwards, sideways			
		Divide, divided by, left, left over	Before, after	Across			
			Next, last	Close, far, near			

Number and place value	Addition and subtraction	Multiplication and division	Measure	Geometry (position and direction)	Geometry (properties of shape)	Fractions	Problem solving
			Now, soon, early, late	Along, through			Cost
			Quick, quicker, quickest, quickly, fast, faster, fastest, slow, slower, slowest, slowly	To, from, towards, away from			Count, work out, answer, check same number(s)/different number(s)/missing number(s)
			Old, older, oldest, new, newer, newest	Movement			Number facts, number line, number track, number square, number cards
			Takes longer, takes less time	Slide, roll, turn, whole turn, half turn			Abacus, counters, cubes, blocks, rods, die, dice, dominoes, pegs, peg board
			Hour, o'clock, half past	Stretch, bend			Same way, different way, best way, another way
			Clock, watch, hands				
			How long ago?, how long will it be to...?, how long will it take to...?, how often?				

			<p>Always, never, often, sometimes, usually</p> <p>Once, twice</p> <p>First, second, third, etc.</p> <p>Estimate, close to, about the same as, just over, just under</p> <p>Too many, too few, not enough, enough</p> <p>Length, width, height, depth</p> <p>Long, longer, longest, short, shorter, shortest, tall, taller, tallest, high, higher, highest</p>					In order, in a different order Not all, every, each
Number and place value	Addition and subtraction	Multiplication and division	Measure	Geometry (position and direction)	Geometry (properties of shape)	Fractions	Problem solving	
			<p>Low, wide, narrow, deep, shallow, thick, thin</p> <p>Far, near, close</p> <p>Metre, ruler, metre stick</p> <p>How much?, how many?</p> <p>Money, coin, penny, pence, pound, price, cost, buy, sell, spend, spent, pay, change, dear(er), costs more, costs less, cheaper, costs the same as</p> <p>Total</p>					

Year 2

Number and Place Value

- Count in steps of 2,3 & 5 from 0. In 10s from any number forwards & back
- Recognise place value of 2 digit numbers
- Compare with < and >
- Read and write to 100
- Use place value and facts to solve problems

Addition and Subtraction

- Solve problems
- Recall and use facts to 20 fluently
- Use related facts to 100
- Add & subtract using CPA for: 2 digit and ones, 2 digit and tens, 2 x 2 digit and 3 x 1 digit
- Commutative understanding for + but not for subtraction
- Use of inverse

Multiplication and Division

- Multiplication and division facts for 2,5 & 10 x tables
- Calculate statements for x & ÷ using =
- Show commutativity for multiplication but not division
- Solve problems with arrays or repeated addition

Fractions

- Recognise, find, name and write $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of length, shape or sets of objects
- Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3

Measurement

- Choose and use standard units to estimate length, height, mass, temperature and capacity
- Compare and order using the above
- Recognise £ and p and combine amount to make a total
- Solve + & - money questions and give change
- Sequence time
- Tell time to 5 minutes, $\frac{1}{4}$ past/to
- Know minutes in an hour & hours in a day

Geometry – Properties of shape

- Identify the properties of 2D shapes, including number of sides & line of symmetry
- Identify and describe properties of 3D shapes, including edges, vertices and faces
- Identify 2D shapes on the surface of 3D shapes
- Compare and sort common 2D and 3D shapes

Geometry – Position and Direction

- Order and arrange objects in patterns and sequences
- Use the vocabulary of position, direction and movement

Statistics

- Interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- Ask and answer questions by counting objects
- Ask and answer questions about totalling data

New maths vocabulary for year 2

Number and place value	Measure	Geometry (position and direction)	Geometry (properties of shape)	Fractions	Data/statistics	Problem solving
Numbers to one hundred	Quarter past/to	Rotation	Size	Three quarters, one third, a third	Count, tally, sort	Predict
Hundreds	m/km, g/kg, ml/l	Clockwise, anticlockwise	Bigger, larger, smaller	Equivalence, equivalent	Vote	Describe the pattern, describe the rule
Partition, recombine	Temperature (degrees)	Straight line	Symmetrical, line of symmetry		Graph, block graph, Pictogram	Find, find all, find different
Hundred more/less		Ninety degree turn, right angle	Fold		Represent	Investigate
			Match		Group, set, list, table	
			Mirror line, reflection		Label, title	
			Pattern, repeating pattern		Most popular, most common, least popular, least common	

Year 3

Number and Place Value

- Count in multiples of 4, 8, 50 & 100
- Find 10 or 100 more/less
- 3 digit place value
- Compare numbers to 1000
- Read and write to 1000
- Solve number problems

Addition and Subtraction

- Add and subtract mentally: three digit and ones, three digit and tens, three digit and hundreds
- Add and subtract up to 3 digits formal column
- Estimate answers
- Solve problems

Multiplication and Division

- 3,4 & 8 times table
- 2 digits x 1 digit using mental and formal written methods
- Solve x & ÷ problems

Fractions

- Count up and down in tenths
- Tenths = 10 equal parts
- Recognise, find and write fractions of objects
- Recognise and show equivalent fractions
- Add and subtract fractions with the same denominator

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- Compare and order unit fractions and fractions with the same denominator

Measurement

- Measure, compare, add & subtract lengths, mass and volume/capacity
- Measure perimeter of 2D shapes
- Add and subtract money and give change
- Tell time on analogue clock to 24 hours and with roman numerals
- Read time to the nearest minute
- Know seconds in a minute, days in each month, year and leap year
- Compare duration of events

Geometry – Properties of shape

- Draw 2D shapes and make 3D shapes
- Recognise 3D shapes in different orientations
- Recognise angles as a description of turn
- Identify right angles and combinations of right angles
- Identify horizontal and vertical lines and pairs of perpendicular and parallel lines

Statistics

- Interpret and present data using bar charts, pictograms and tables
- Solve one step and two step questions - how many more etc

New maths vocabulary for year 3

Number and place value	Addition and subtraction	Multiplication and division	Measure	Geometry (position and direction)	Geometry (properties of shape)	Fractions	Data/statistics
Numbers to one thousand	Column addition and subtraction	Product Multiples of four, eight, fifty and one hundred Scale up	Leap year Twelve-hour/twenty-four- hour clock Roman numerals I to XIII	Greater/less than ninety degrees Orientation (same orientation, different orientation)	Horizontal, perpendicular and parallel lines	Numerator, denominator Unit fraction, non-unit fraction Compare and order Tenths	Chart, bar chart, frequency table Carroll diagram, Venn diagram Axis, axes Diagram

Year 4

Number and Place Value

- Count in multiples of 6,7,9, 25 & 1000
- Find 1000 more/less
- Count back through zero
- 4 digit place value
- Order and compare beyond 1000
- Round to 10, 100 or 1000
- Solve number problems
- Roman numerals

Addition and Subtraction

- Add and subtract formally with 4 digits
- Estimate
- Solve addition and subtraction 2 step problems

Multiplication and Division

- Know up to 12 x 12
- X & ÷ mentally
- Multiply 3 numbers together
- Recognise and use factor pairs and commutativity
- Multiply 2 and 3 digit numbers by a single digit
- Solve problems

Fractions

- Show common equivalences
- Count up and down in hundredths
- Calculate quantities
- Add and subtract fractions with the same denominator
- Recognise and write decimal equivalents to tenths/hundredths
- Decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ & $\frac{3}{4}$
- Dividing by 10 or 100
- Round decimals to whole number
- Compare decimal numbers
- Solve money and measures problems

Measurement

- Convert between units of measure
- Measure and calculate perimeter of a rectilinear figure
- Find the area of rectilinear shapes by counting squares
- Estimate and compare different measures
- Read, write and convert time between analogue and digital
- Solve time problems

Geometry – Properties of shape

- Compare and classify geometric shapes including triangles and quadrilaterals
- Identify acute and obtuse angles
- Compare and order angles
- Identify lines of symmetry in 2D shapes
- Complete a symmetrical image

Geometry – Position and Direction

- Describe positions on a 2D grid as co-ordinates in the first quadrant
- Describe the movements between positions as translations up/down & left/right
- Plot specified points and draw sides to complete a given polygon

Statistics

- Interpret and present discrete and continuous data (bar charts and line graphs)
- Solve problems with data presented in different graphs

New maths vocabulary for year 4

Number and place value	Multiplication and division	Measure	Geometry (position and direction)	Geometry (properties of shape)	Fractions and decimals	Data/statistics
Tenths, hundredths Decimal (places)	Multiplication facts (up to 12x12)	Convert	Coordinates	Quadrilaterals	Equivalent decimals and fractions	Continuous data
Round (to nearest)	Division facts		Translation	Triangles		Line graph
Thousand more/less than	Inverse		Quadrant	Right angle, acute and obtuse angles		
Negative integers	Derive		x-axis, y-axis			
Count through zero			Perimeter and area			
Roman numerals (I to C)						

Year 5

Number and Place Value

- Read, write, order and compare to 1,000,000
- Count forwards/back in steps of powers of 10 to 1,000,000
- Round numbers up to 1,000,000
- Roman numerals to 1000

Addition and Subtraction

- Add and subtract more than 4 digits
- Add and subtract mentally
- Use rounding
- Solve multistep problems

Multiplication and Division

- Identify factors and multiples
- Know and use prime numbers recall to 19 and calculate up to 100
- Multiply 4 digit by 1 or 2 digit number using formal method
- Divide 4 digits by 1 digit number
- X & ÷ by powers of 10

Fractions

- Compare and order fractions where denominators are multiples
- Write equivalent fractions
- Convert improper fractions to mixed fractions
- Add and subtract with the same or common multiple denominators
- Multiply fractions
- Read and write decimals as fractions
- Recognise and use thousandths
- Round decimals with two decimal places
- Compare with up to three decimal places
- Recognise the % symbol and understand as parts per 100

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- Solve problems that require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$ & $\frac{4}{5}$ and multiples of 10 or 25

Measurement

- Convert between different units of metric measurement
- Understand the approx. equivalence between metric and imperial units
- Measure and calculate perimeter of composite rectilinear shapes
- Calculate and compare the area of rectangles
- Estimate volume and capacity
- Solve time problems
- Use all four operations involving measures

Geometry – Properties of shape

- Identify 3D shapes, including cubes and other cuboids from 2D representations.
- Estimate and compare acute, obtuse and reflex angles
- Draw angles and measure in degrees
- Identify angles as a point and a whole turn, angles at a point and on a straight line, multiples of 90°
- Use the properties of rectangles to deduce related facts and find missing lengths and angles
- Distinguish between regular and irregular polygons based on reasoning about equal sides and angles

Geometry – Position and Direction

- Identify, describe and represent the position of a shape following a reflection or translation

Statistics

- Solve comparison, sum and difference problems using information in line graphs
- Complete, read and interpret data in tables including timetables

New maths vocabulary for year 5

Number and place value	Addition and subtraction	Multiplication and division	Measure	Geometry (position and direction)	Geometry (properties of shape)	Fractions, decimals and percentages
Powers of 10	Efficient written method	Factor pairs Composite numbers, prime number, prime factors, square number, cubed number Formal written method	Volume Imperial units, metric units	Reflex angle Dimensions	Regular and irregular polygons	Proper fractions, improper fractions, mixed numbers Percentage Half, quarter, fifth, two fifths, four fifths Ratio, proportion

Year 6

Number and Place Value

- Read, write, order and compare to 10,000,000
- Round any whole number as required
- Negative numbers in context and across zero
- Solve problems

Addition and Subtraction & Multiplication and Division

- Multiply 4 digits by 2 digits
- Divide 4 digits by 2 digits using long division
- Divide 4 digits by 2 digits using short division where appropriate
- Identify common factors, multiples and prime numbers
- BIDMAS
- Solve addition and subtraction multistep problems
- Solve problems with all four operations

Fractions

- Use common factors and multiples to simplify fractions
- Compare and order fractions
- Add and subtract fractions with different denominators
- Multiply simple fractions, simplifying answers
- Associate fractions with division
- X & ÷ by powers of 10

Measurement

- Solve problems including conversion of measures up to 3 decimal places.
- Convert between units of measurement
- Convert between miles and kilometres
- Recognise that shapes can have the same area but different perimeters
- Recognise that a formula can be used for area and volume
- Calculate area of triangles and parallelograms
- Calculate and estimate volume of cubes and cuboids

Geometry – Properties of shape

- Draw 2D shapes using given dimensions and angles
- Recognise, describe and build simple 3D shapes including making nets
- Compare and classify shapes based on properties
- Illustrate and names parts of circles
- Recognise where angles meet at a point or are vertically opposite and find missing angles

Geometry – Position and Direction

- Describe positions in all four quadrants
- Draw and translate simple shapes on the co-ordinate plane and reflect them in axes

Statistics

- Interpret and construct pie charts and line graphs and use these to solve problems
- Calculate and interpret the mean as an average

Algebra

- Use simple formulae
- Generate and describe linear sequences
- Express missing number problems algebraically
- Find pairs of numbers which satisfy an equation with two unknowns
- Explore possible combinations.

Ratio

- Solve problems involving the relative sizes of two quantities
- Solve problems involving the calculation of percentages and use for comparison
- Solve problems involving similar shapes where the scale factor is known
- Solve problems using knowledge of fractions and multiples

New maths vocabulary for year 6

Number and place value	Addition and subtraction	Multiplication and division	Geometry (position and direction)	Geometry (properties of shape)	Fractions, decimals and percentages	Algebra	Data/statistics
Numbers to ten million	Order of operations	Order of operations Common factors, common multiples	Four quadrants (for coordinates)	Vertically opposite (angles) Circumference, radius, diameter	Degree of accuracy Simplify	Linear number sequence Substitute Variables Symbol Known values	Mean Pie chart Construct

Community, Responsibility, Endeavour, Confidence, Curiosity, Grace

Massive Minds, Huge Hearts, Guided by God

“Like a tree, planted by streams of water, in all that we do, we will prosper”