



Mathematics

Long / Medium Term Planning 2025-2026
N - Y6

Nursery	1A	1B	2A	2B	3A	3B
	Counting to 5 Linking numerals and amounts to 5 Number songs / games	Picture patterns Exploring 2D shapes Number songs/games	ABAB patterns Comparing objects related to size, height and length Counting backwards from 5 More and Fewer	Positional language Sequencing events More/fewer than	Counting to 10 Counting objects saying one number name for each item on order (1 2 3 4 5) Using vocabulary to describe 2D shapes (flat, straight, round, sides)	Comparing quantities Counting actions or objects that cannot be moved Ordering and recognising numbers to 5

Reception – White Rose topic guidance

Wk	Term 1a	Wk	Term 1b
1	Getting to know you	1	It's me 1 2 3!
2	Settling in and games. Key time of day, routines. Explore	2	Representing, comparing and composition of 1, 2 & 3.
3	continuous provision inside and out. Where do things belong? Positional language.	3	Circles and triangles. Positional language.
4	Just like me	4	Light and dark
5	Match and sort. Compare amounts.	5	Representing numbers to 5. One more and one less.
6	Compare size, mass and capacity. Exploring pattern.	6	Shapes with 4 sides. Time.
7		7	
8			

Wk	Term 2a	Wk	Term 2b
1	Alive in 5!	1	Building 9 and 10.
2	Introducing zero. Comparing numbers to 5. Composition of 4	2	9 & 10. Comparing numbers to 10. Bonds to 10.
3	& 5. Compare mass. Compare capacity.	3	3D shape. Pattern.
4	Growing 6, 7, 8.	4	Consolidation
5	6, 7 & 8. Making pairs. Combining 2 groups.	5	
6	Length & height. Time		
7			

Wk	Term 3a	Wk	Term 3b
1	To 20 and beyond.	1	Find my pattern
2	Building numbers beyond 10. Counting patterns beyond 10.	2	Doubling. Sharing and grouping. Even and odd.
3	Spatial reasoning. Match, rotate, manipulate.	3	Spatial reasoning. Visualise and build.
4	First Then Now	4	On the move
5	Adding more. Taking away.	5	Deepening understanding. Patterns and relationships.
	Spatial reasoning. Compose and decompose.	6	Spatial reasoning. Mapping.
		7	

Reception	1A	1B	2A	2B	3A	3B
	Counting objects, actions and sounds (up to 10) Counting to 15 Number Matching and sorting objects Comparing amounts 'more than', 'fewer than' 'the same as' Pattern Continue, copy and create ABAB patterns	Number bonds to 5 Estimating an amount Number Identifying representations of numbers up to 5 Subitising to 3 Matching number names to quantities Exploring composition of numbers to 5 One more and one less within 5 Shape Circle and triangles Shapes with 4 sides Spatial Awareness Positional language Time Describing events Talking about 'now, next and later'	Counting to 20 Number Introducing zero Identifying representations of numbers up to 8 Subitising to 5 Exploring composition of numbers up to 8 One more and less up to 8 Making pairs Combining two groups Measure Using vocabulary to describe length and height (longer, shorter, taller, wider, narrower) Comparing weight/length Time Building on vocabulary, using 'now, before, later, after' and begin to talk about events occurring 'yesterday, today, tomorrow'	Comparing capacity Number Identifying representations of numbers up to 10 Conceptually subitise numbers up to 10 (I know it is 9 as I can see a 3, 3 and 3) Comparing numbers up to 10 Number bonds to 10 Shape Introduction to 3D shapes, comparing similarities and differences Pattern Building on AB by exploring ABB, AAB, AABB, AABBB patterns	Number Building numbers to 20 Adding and taking away Spatial reasoning Explaining why shapes fit into a certain space, continue to build use of positional language Exploring how shapes can be combined and separated to make new shapes	Number Doubling Sharing and halving Odd and even numbers Consolidating and deepening understanding

EYFS Vocabulary

Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions, Decimals and Percentages	Measurement	Geometry	Statistics
Zero (0), One (1), two (2), three (3), four (4), five (5), six (6), seven (7), eight (8), nine (9), ten (10), eleven (11), twelve (12), thirteen (13), fourteen (14), fifteen (15), sixteen (16), seventeen (17), eighteen (18), nineteen (19), twenty (20) Number, Subitise, Cardinal How many, compare Same, different More, less, fewer One more/one less Largest, smallest Order, group, show First, Second, Third Total, altogether Next, after Count, count on, count forwards Count back, count backwards Five frame, tens frame Number line, bar model Part-whole model	1, 2, 3, 4, 5, 6, 7, 8, 9, 10 One, two, three, four, five Odd/Even Sort, group, object Same, different Size, shape, colour, pattern Bigger, smaller How many More than/Less than One less/One more Order Fewer, take away Add, altogether Half, double, share Five frame/s Parts, whole Part-whole model How many Total Ten frame/s Number Bonds Forwards Backwards Direction	Double Equal groups Double facts Doubling More Same/different Continue Pattern Next How many, altogether Count, groups More, fewer, less, amount Half, halving, share, fair Equal, each Uneven Solution Odd, even Odd number, even number	n/a	First Next Later Then Last Before After Every day Time Clock face O'clock Order Timetable Sequence Heavy, Light Heavier, lighter Balanced, Same, Equal Empty, full, half full Most. least Second, Minute, Hour.	In On Below Under Above In front of Behind Next to Up Down Across Forwards Backwards Left Right Roll Stack Push Curved Straight Round Corners Face Edge Sides Smooth Square Rectangle Circle Triangle Sphere Cube Cuboid Cylinder Cone Big Little Flat Pointy Same Difference Different Properties	n/a

Year 1 – White Rose topic guidance

Wk	Term 1a	Wk	Term 1b
1	Number: Place value (within 10)	1	Number: Addition and subtraction (within 10)
2	Number: Place value (within 10)	2	Number: Addition and subtraction (within 10)
3	Number: Place value (within 10)	3	Geometry: Shape
4	Number: Place value (within 10)	4	Number: Place value (within 20)
5	Number: Place value (within 10)	5	Number: Place value (within 20)
6	Number: Addition and subtraction (within 10)	6	Consolidation
7	Number: Addition and subtraction (within 10)	7	Consolidation
8	Number: Addition and subtraction (within 10)		

Wk	Term 2a	Wk	Term 2b
1	Number: Place value (within 20)	1	Measurement (length & height)
2	Number: Addition and subtraction (within 20)	2	Measurement (length & height)
3	Number: Addition and subtraction (within 20)	3	Measurement (weight & volume)
4	Number: Addition and subtraction (within 20)	4	Measurement (mass & volume)
5	Place value (within 50)	5	Consolidation
6	Place value (within 50)		
7	Consolidation		

Wk	Term 3a	Wk	Term 3b
1	Number: Multiplication and division	1	Geometry: Position & direction
2	Number: Multiplication and division	2	Number: Place value (within 100)
3	Number: Multiplication and division	3	Number: Place value (within 100)
4	Fractions	4	Measurement: Money
5	Fractions	5	Measurement: Time
		6	Measurement: Time
		7	Consolidation

YEAR 1

NUMBER				MEASUREMENT	GEOMETRY		STATISTICS
Number and place value	Addition and subtraction	Multiplication and division	Fractions		Properties of shapes	Position and direction	
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 twos, fives and tens. Given a number, identify one more and one less. 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. Read and write numbers from 1 to 20 in numerals and words.	Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. Represent and use number bonds and related subtraction facts within 20. Add and subtract one-digit and two-digit numbers to 20, including zero. Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9.$	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.	Recognise, find and name a half as one of two equal parts of an object, shape or quantity. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.	Compare, describe and solve practical problems for: - lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half) - mass or weight (e.g. heavy/light, heavier than, lighter than) - capacity/volume (e.g. full/empty, more than, less than, half, half full, quarter) - time (e.g. quicker, slower, earlier, later) Measure and begin to record the following: - lengths and heights - mass/weight - capacity and volume - time (hours, minutes, seconds) Recognise and know the value of different denominations of coins and notes. Sequence events in chronological order using language (e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening). 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.	Recognise and name common 2-D and 3-D shapes, including: 2-D shapes (e.g. rectangles (including squares), circles and triangles) 3-D shapes (e.g. cuboids (including cubes), pyramids and spheres).	Describe position, direction and movement, including whole, half, quarter and three-quarter turns.	

Year 1 Vocabulary

Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions, Decimals and Percentages	Measurement	Geometry	Statistics
In addition to previous years: Digit Value Matching Is equal to = Greater than > Less than < Partition	In addition to previous years: Sum Digits Plus Count Count on/back How many left? In total Compare Fact Family Ones, Tens Number Sentence Partition	In addition to previous years: Array Row Column Twice Total Equal groups Same, different Share, sharing Equally, fairly Total, altogether Each Bar Model Equal parts Groups of Lots of Fact family Unequal groups	Half Halves Quarter Equal Share Split Part Whole	In addition to previous years: Long/Short/Tall, Length/height Compare Measure Ruler Centimetres (cm) Weight, weigh Capacity Balance scales Shorter, longer Earlier, later Yesterday, today Tomorrow, day Week, month, year Monday, Tuesday Wednesday Thursday, Friday Saturday, Sunday Calendar, date Minute hand Hour hand Second hand O'clock Half past Pound, penny Pennies, pence Coins, notes Bank notes, £.p.	In addition to previous years: 2D 3D Pyramid Pattern Repeat Turn Position Direction Half turn Quarter turn Three-quarter turn Whole turn In between Below Top Middle Bottom	n/a

Year 2 – White Rose topic guidance

Wk	Term 1a	Wk	Term 1b
1	Number: Place value	1	Number: Addition and subtraction
2	Number: Place value	2	Geometry: Shape
3	Number: Place value	3	Geometry: Shape
4	Number: Place value	4	Geometry: Shape
5	Number: Addition and subtraction	5	Measurement: Money
6	Number: Addition and subtraction	6	Measurement: Money
7	Number: Addition and subtraction	7	
8	Number: Addition and subtraction		

Wk	Term 2a	Wk	Term 2b
1	Number: Multiplication and division	1	Measurement: Mass, capacity & temperature
2	Number: Multiplication and division	2	Measurement: Mass, capacity & temperature
3	Number: Multiplication and division	3	Measurement: Mass, capacity & temperature
4	Number: Multiplication and division	4	Statistics
5	Number: Multiplication and division	5	Statistics
6	Measurement: Length & height		
7	Measurement: Length & height		

Wk	Term 3a	Wk	Term 3b
1	Number: Fractions	1	Problem solving
2	Number: Fractions	2	Problem solving
3	Number: Fractions	3	Measurement: Time
4	Geometry: Position and direction	4	Measurement: Time
5	Geometry: Position and direction	5	Measurement: Time
		6	Consolidation
		7	Consolidation

YEAR 2

NUMBER				MEASUREMENT	GEOMETRY		STATISTICS
Number and place value	Addition and subtraction	Multiplication and division	Fractions		Properties of shapes	Position and direction	
Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward. Recognise the place value of each digit in a two-digit number (tens, ones). Identify, represent and estimate numbers using different representations, including the number line. Compare and order numbers from 0 up to 100; use <, > and = signs. Read and write numbers to at least 100 in numerals and in words. Use place value and number facts to solve problems.	Solve problems with addition and subtraction: - using concrete objects and pictorial representations, including those involving numbers, quantities and measures - applying their increasing knowledge of mental and written methods 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 ones - a two-digit number and tens - two two-digit numbers - adding three one-digit numbers Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication ($\times$), division ($\div$) and equals (=) signs. Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a length, shape, set of objects or quantity. Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. Compare and order lengths, mass, volume/capacity and record the results using >, < and =. 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. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change. 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.	Identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line. Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces. Identify 2-D shapes on the surface of 3-D shapes (e.g. a circle on a cylinder and a triangle on a pyramid). Compare and sort common 2-D and 3-D shapes and everyday objects.	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).	Interpret and construct simple pictograms, tally charts, block diagrams and simple 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.

Year 2 Vocabulary

Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions, Decimals and Percentages	Measurement	Geometry	Statistics
In addition to previous years: Place value grid More Less Most Least Greatest Order Compare Partition	In addition to previous years: Method Column Exchange Place Value 1-digit number 2-digit number Calculation Subtract/Minus Bar Model Efficient	In addition to previous years: Repeated addition Number of groups Times Times -table Multiply Multiplication More than Less than Multiplication facts Division	In addition to previous years: How many Different Halves Quarters Thirds Compare Order	In addition to previous years: Metres (m) Mass Grams (g) Kilograms (kg) Temperature Degrees (°C) Thermometer Litres (l) Millilitres (ml) Notes/Coins Change Money Buy/Spend Value/Amount/Total Analogue Quarter past Quarter to, am/pm	In addition to previous years: Quadrilateral Polygon Pentagon Hexagon Octagon Vertex Vertices Line of symmetry Symmetrical Reflection Hemisphere Curved surface Edge Prism Anti -clockwise Clockwise	Pictogram Key Tally Chart

Year 3 – White Rose topic guidance

Wk	Term 1a	Wk	Term 1b
1	Number: Place value	1	Number: Multiplication and division
2	Number: Place value	2	Number: Multiplication and division
3	Number: Place value	3	Number: Multiplication and division
4	Number: Addition and subtraction	4	Number: Multiplication and division
5	Number: Addition and subtraction	5	Number: Multiplication and division
6	Number: Addition and subtraction	6	Number: Multiplication and division
7	Number: Addition and subtraction	7	Number: Multiplication and division
8	Number: Addition and subtraction		

Wk	Term 2a	Wk	Term 2b
1	Measurement: Length & perimeter	1	Measurement: Mass & capacity
2	Measurement: Length & perimeter	2	Measurement: Mass & capacity
3	Measurement: Length & perimeter	3	Measurement: Mass & capacity
4	Number: Fractions	4	Number: Fractions
5	Number: Fractions	5	Number: Fractions
6	Number: Fractions		
7	Consolidation		

Wk	Term 3a	Wk	Term 3b
1	Measurement: Money	1	Geometry: Shape
2	Measurement: Money	2	Geometry: Shape
3	Measurement: Time	3	Statistics
4	Measurement: Time	4	Statistics
5	Measurement: Time	5	Consolidation
		6	Consolidation
		7	Consolidation

YEAR 3

NUMBER				MEASUREMENT	GEOMETRY		STATISTICS
Number and place value	Addition and subtraction	Multiplication and division	Fractions		Properties of shapes	Position and direction	
Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.	Add and subtract numbers mentally, including: - a three-digit number and ones - a three-digit number and tens - a three-digit number and hundreds.	Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.	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.	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).	Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.		Interpret and present data using bar charts, pictograms and tables.
Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).		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.	Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.	Measure the perimeter of simple 2-D shapes.	Recognise angles as a property of shape or a description of a turn.		Solve one-step and two-step questions (e.g. 'How many more?' and 'How many fewer?') using information presented in scaled bar charts and pictograms and tables.
Compare and order numbers up to 1000.	Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.		Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.	Add and subtract amounts of money to give change, using both £ and p in practical contexts.	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, represent and estimate numbers using different representations.		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.	Recognise and show, using diagrams, equivalent fractions with small denominators.	Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.			
Read and write numbers up to 1000 in numerals and in words.	Estimate the answer to a calculation and use inverse operations to check answers.		Add and subtract fractions with the same denominator within one whole (e.g. $5/7 + 1/7 = 6/7$)	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.			
Solve number problems and practical problems involving these ideas.	Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.		Compare and order unit fractions, and fractions with the same denominators.	Know the number of seconds in a minute and the number of days in each month, year and leap year.	Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.		
			Solve problems that involve all of the above.	Compare durations of events (e.g. to calculate the time taken by particular events or tasks).			

Year 3 Vocabulary

Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions, Decimals and Percentages	Measurement	Geometry	Statistics
In addition to previous years: Hundred Hundreds Sequence	In addition to previous years: Estimate Inverse Difference, Calculations, Place value Related facts 3-digit number Increase Decrease	In addition to previous years: Short division Grid method Division facts Divide ($\div$), Division Division fact Remainder One -step Two -step Multi -step Repeated addition Inverse Operation Sets of x groups of y	In addition to previous years: Equal parts Fraction Unit fraction Non-unit fraction Denominator Numerator Fifths, eighths, tenths, Whole number Decimal point Integer partition	In addition to previous years: Perimeter Distance around Millimetres (mm), Leap year Midnight Midday/Noon, Roman numerals 12-hour clock 24-hour clock Daytime Night-time Seconds Minutes Hours Digital Clock Convert Combinations Expensive Cheapest Length Width	In addition to previous years: Angle Right angle Straight Line Perpendicular Parallel Vertical Horizontal Apex Heptagon	In addition to previous years: Bar Chart Table Vertical Horizontal Axis Scale Data

Year 4 – White Rose topic guidance

Wk	Term 1a	Wk	Term 1b
1	Number: Place value	1	Number: Multiplication and division
2	Number: Place value	2	Number: Multiplication and division
3	Number: Place value	3	Number: Multiplication and division
4	Number: Place value	4	Number: Multiplication and division
5	Number: Addition and subtraction	5	Number: Multiplication and division
6	Number: Addition and subtraction	6	Number: Multiplication and division
7	Number: Addition and subtraction	7	Consolidation
8	Measurement: Area		

Wk	Term 2a	Wk	Term 2b
1	Measurement: Length & perimeter	1	Number: Decimals
2	Measurement: Length & perimeter	2	Number: Decimals
3	Number: Fractions	3	Number: Decimals
4	Number: Fractions	4	Number: Decimals
5	Number: Fractions	5	Number: Decimals
6	Number: Fractions		
7	Consolidation		

Wk	Term 3a	Wk	Term 3b
1	Measurement: Money	1	Geometry: Shape
2	Measurement: Money	2	Geometry: Shape
3	Measurement: Time	3	Statistics
4	Measurement: Time	4	Geometry: Position & direction
5	Consolidation	5	Geometry: Position & direction
		6	Consolidation
		7	Consolidation

YEAR 4

NUMBER				MEASUREMENT	GEOMETRY		STATISTICS
Number and place value	Addition and subtraction	Multiplication and division	Fractions (including decimals)		Geometry: Properties of shapes	Geometry: Position and direction	
Count in multiples of 6, 7, 9, 25 and 1000. Find 1000 more or less than a given number. Count backwards through zero to include negative numbers. Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones). Order and compare numbers beyond 1000. Identify, represent and estimate numbers using different representations. Round any number to the nearest 10, 100 or 1000. Solve number and practical problems that involve all of the above and with increasingly large positive numbers. Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.	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.	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 three numbers. 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 one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.	Recognise and show, using diagrams, families of common equivalent fractions. Count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten. 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. Recognise and write decimal equivalents of any number of tenths or hundredths. Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$. 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 units, tenths and hundredths. Round decimals with one decimal place to the nearest whole number. Compare numbers with the same number of decimal places up to two decimal places. Solve simple measure and money problems involving fractions and decimals to two decimal places.	Convert between different units of measure (e.g. kilometre to metre; hour to minute). Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres. Find the area of rectilinear shapes by counting squares. Estimate, compare and calculate different measures, including money in pounds and pence. 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.	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. 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. 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.	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.

Year 4 Vocabulary

Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions, Decimals and Percentages	Measurement	Geometry	Statistics
In addition to previous years: Thousands Rounding Round up Round down Negative number Positive number Roman numerals	In addition to previous years: No new vocabulary	In addition to previous years: Grouped Factor Product Multiple Calculate Calculation Correspondence Scaling	In addition to previous years: Hundredth/s Proper fraction Decimal Fraction Whole Integer Equivalent Decimal point Decimal place Convert sixths, sevenths, ninths elevenths, twelfths	In addition to previous years: Area Rectilinear Squared (cm², m² etc) Kilometres Reflection Rotation	In addition to previous years: Interior angle Acute Obtuse Regular Irregular Isosceles Scalene Equilateral Reflective Symmetry Grid Co-ordinates	In addition to previous years: Line graph Time graph Discrete Continuous Pattern Relationship Maximum/Minimum Value

Year 5 – White Rose topic guidance

Wk	Term 1a	Wk	Term 1b
1	Number: Place value	1	Number: Fractions
2	Number: Place value	2	Number: Fractions
3	Number: Place value	3	Number: Fractions
4	Number: Addition and subtraction	4	Number: Fractions
5	Number: Addition and subtraction	5	Number: Multiplication and division
6	Number: Multiplication and division	6	Number: Multiplication and division
7	Number: Multiplication and division	7	Number: Multiplication and division
8	Number: Multiplication and division		

Wk	Term 2a	Wk	Term 2b
1	Number: Fractions	1	Statistics
2	Number: Fractions	2	Statistics
3	Number: Decimals & percentages	3	Geometry: Shape
4	Number: Decimals & percentages	4	Geometry: Shape
5	Number: Decimals & percentages	5	Geometry: Shape
6	Measurement: Perimeter & area		
7	Measurement: Perimeter & area		

Wk	Term 3a	Wk	Term 3b
1	Geometry: Position & direction	1	Number: Negative numbers
2	Geometry: Position & direction	2	Measurement: Converting units
3	Number: Decimals	3	Measurement: Converting units
4	Number: Decimals	4	Measurement: Volume
5	Number: Decimals	5	Consolidation
		6	Consolidation
		7	Consolidation

YEAR 5

NUMBER				MEASUREMENT	GEOMETRY		STATISTICS
Number and place value	Addition and subtraction	Multiplication and division	Fractions (including decimals and percentages)		Properties of shapes	Position and direction	
Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit.	Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).	Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.	Compare and order fractions whose denominators are all multiples of the same number.	Convert between different units of metric measure (e.g. kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).	Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.	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.	Solve comparison, sum and difference problems using information presented in a line graph.
Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.	Add and subtract numbers mentally with increasingly large numbers.	Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.	Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.	Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.	Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.		Complete, read and interpret information in tables, including timetables.
Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero.	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.	Establish whether a number up to 100 is prime and recall prime numbers up to 19.	Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $2/5 + 4/5 = 6/5 = 1 \frac{1}{5}$)	Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.	Draw given angles, and measure them in degrees ($^{\circ}$)		
Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	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.	Add and subtract fractions with the same denominator and denominators that are multiples of the same number.	Calculate and compare the area rectangles (including squares) and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes.	Identify: - angles at a point and one whole turn ($\text{total } 360^{\circ}$) - angles at a point on a straight line and $\frac{1}{2}$ a turn ($\text{total } 180^{\circ}$) - other multiples of 90°		
Solve number problems and practical problems that involve all of the above.		Multiply and divide numbers mentally drawing upon known facts.	Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	Estimate volume (e.g. using 1 cm^3 blocks to build cuboids (including cubes)) and capacity (e.g. using water)	Use the properties of rectangles to deduce related facts and find missing lengths and angles.		
Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.		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.	Read and write decimal numbers as fractions (e.g. $0.71 = 71/100$)	Solve problems involving converting between units of time.	Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.		
		Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3).	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.	Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.			
		Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.	Round decimals with two decimal places to the nearest whole number and to one decimal place.				
		Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.	Read, write, order and compare numbers with up to three decimal places.				
		Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.	Solve problems involving number up to three decimal places.				
		Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	Recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator 100, and as a decimal.				
			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 with a denominator of a multiple of 10 or 25.				

Year 5 Vocabulary

Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions, Decimals and Percentages	Measurement	Geometry	Statistics
In addition to previous years: Ten thousand/s Hundred thousand/s Million	In addition to previous years: Round	In addition to previous years: Prime Prime Factors Long division, Divisor Dividend Prime number Composite number Square ($\times^2$) Cube ($\times^3$)	In addition to previous years: Thousandth/s Remainder Divisor Dividend Quotient Percent (%) Percentage Decimal place Rounding to $\frac{1}{2}$ d.p. Factor Highest common factor Mixed Number Convert Improper fraction Simplify Simplest fraction Common Numerator Common Denominator	In addition to previous years: Scale Squared (cm^2, m^2 etc) Metric units Imperial units Ounce (oz), Pound (lb), stone (st), Pint (pt), gallon Inch (in), foot, yard (yd).	In addition to previous years: Degree ($^\circ$) Reflex Interior angle Top view Plan view Side view Mirror line Translate Translation	In addition to previous years: Timetable/s Two-way table Dual line graph

Year 6 – White Rose topic guidance

Wk	Term 1a	Wk	Term 1b
1	Number: Place value	1	Number: Fractions
2	Number: Place value	2	Number: Fractions
3	Number: Addition, subtraction, multiplication & division	3	Number: Fractions
4	Number: Addition, subtraction, multiplication & division	4	Number: Fractions
5	Number: Addition, subtraction, multiplication & division	5	Measurement: Converting units
6	Number: Addition, subtraction, multiplication & division	6	Measurement: Ratio
7	Number: Addition, subtraction, multiplication & division	7	Measurement: Ratio
8	Consolidation		

Wk	Term 2a	Wk	Term 2b
1	Number: Algebra	1	Measurement: Perimeter, area & volume
2	Number: Algebra	2	Measurement: Perimeter, area & volume
3	Number: Decimals	3	Statistics
4	Number: Decimals	4	Statistics
5	Number: Fractions, decimals & percentages	5	Geometry: Shape
6	Number: Fractions, decimals & percentages	6	Geometry: Shape
7	Consolidation		

Wk	Term 3a	Wk	Term 3b
1	Geometry: Shape	1	Themed projects, consolidation and problem solving.
2	Geometry: Position & direction	2	WR Bakery
3	Consolidation	3	WR Tours
4	SATS week	4	WR Futures
5	Consolidation	5	
6	Consolidation	6	

YEAR 6

NUMBER			RATIO and PROPORTION	ALGEBRA	MEASUREMENT	GEOMETRY		STATISTICS
Number and place value	Addition, subtraction, multiplication and division	Fractions (including decimals and percentages)				Properties of shapes	Position and direction	
Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit. Round any whole number to a required degree of accuracy. Use negative numbers in context, and calculate intervals across zero. Solve number and practical problems that involve all of the above.	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 remainders, 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. Identify common factors, common multiples and prime numbers. Use their knowledge of the order of operations to carry out calculations involving the four 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 and determine, in the context of a problem, an appropriate degree of accuracy.	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 (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$). Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$) Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$). Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are 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 rounded to specified degrees of accuracy. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.	Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. Solve problems involving the calculation of percentages (e.g. 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.	Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically. Find pairs of numbers that satisfy number sentences involving two unknowns. Enumerate all possibilities of combinations of two variables.	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 smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places. Convert between miles and kilometres. 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, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units (e.g. mm^3 and km^3).	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.	Describe positions on the full coordinate grid (all four quadrants). Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	Interpret and construct pie charts and line graphs and use these to solve problems. Calculate and interpret the mean as an average.

Year 6 Vocabulary

Number and Place Value	Addition and Subtraction	Multiplication and Division	Fractions, Decimals and Percentages	Measurement	Geometry	Statistics	Ratio and Proportion	Algebra
In addition to previous years: Ten million Linear Sequence Estimate Approximately Exactly	In addition to previous years: No new vocabulary	In addition to previous years: Common factor Common multiple Brackets	In addition to previous years: Lowest common multiple	In addition to previous years: Conversion table Conversion graph Volume Cubed (cm³, m³) Height	In addition to previous years: Quadrant Reflect Vertically opposite Radius Diameter Circumference Net	In addition to previous years: Average Mean Pie chart Segment	Ratio notation (1:2) Proportion Part Whole Total Group Fraction Unequal Equal Simplest form Simplify Similar Enlarge Enlargement scale Map scale Scale factor	Pattern Sequence Rule Term Algebra Algebraic expression Formula Formulae Substitute Generalise Operation Calculation Calculate Equation Inverse Solution Represent Value. Enumerate Variable One-step Two-step Unknown Term to term rule