Maths Curriculum Mapping

White Rose Objectives Version 3 September 2023
Mixed year group version

EYFS Reception		
Autumn Term	Spring Term	Summer Term
Matching & sorting objects within 10	Introducing zero	Building numbers beyond 10 (within 20)
Comparing amounts	Finding, subitising and representing 0-5	Continuing patterns beyond 10 (within 20)
Comparing size, mass and capacity	1 more, 1 less	Verbal counting beyond 20
Exploring simple patterns	Composition and conceptual subitising to 5	Verbal counting patterns
Continuing and creating simple patterns	Comparing mass and capacity	Adding and taking away
Numbers 1,2 & 3	Find a balance	How many did I add and take away?
Finding, subitising and representing 1,2 & 3	Finding, subitising and representing 6,7, & 8	Selecting shapes for a purpose
1 more and 1 less	1 more, 1 less	Rotating and manipulating shapes
Composition of 1,2, & 3	Composition of 6,7 & 8	Composing and decomposing shapes
Identifying and naming circles and triangles	Making pairs – odd and even	Copying 2D shape pictures
Comparing circles and triangles	Find and make double to 8	Finding 2D shapes within 3D shapes
Shapes in the environment	Explore and compare length & height	Sharing and grouping
Describing position	Talk, order and sequence time	Even and odd sharing
Finding, subitising and representing 4 & 5	Find and represent 9 & 10	Playing with building doubles
1 more, 1 less	Compare numbers to 10	Repeated patterns
Composition of 1-5	Conceptual subsitising to 10	Creating and exploring own pattern rules
Identifying and naming shapes with 4 sides	1 more, 1 less	Visualise from different positions
Combining shapes with 4 sides	Composition to 10	Describing positions
Shapes in the environment	Number bonds to 10	Giving instructions to build
Time – day and night	Making arrangements of 10	Exploring mapping
	Recognising and naming 3-D shapes	Patterns and relationships
	Finding 2-d shapes within 3D shapes	
	3D shapes in the environment	
	Identify more complex patters	
	Copy and continue patterns	
	Patterns in the environment	

Year 1		
Autumn Term	Spring Term	Summer Term
Place Value within 10	**Place value within 20**	**Multiplication and Division**
Counting and sorting objects from a larger group	Count within 20	Counting in 2s, 10s, and 5s
Representing objects	Understand 10, 11, 12, 13, 1, 15, 16, 17, 18, 19, 20	Recognise and add equal groups
Recognising numbers as words	1 more, 1 less	Make arrays
Counting forwards and backwards	The number line to 20	Make doubles
1 more, 1 less	Use and estimate using a number line to 20	Make equal groups – grouping and sharing
Comparing groups and numbers	Compare and order numbers to 20	**Fractions**
Fewer, more same, less than, greater than, equal to	**Addition and subtraction (within 20)**	Recognising a half of an object of a shape
Order objects and numbers	Add by counting on within 20	Find a half of an object or shape
The number line	Add ones using number bonds	Recognise a half of a quantity
Addition and subtraction (within 10)	Find and make number bonds to 20	Find a half of a quantity
Introduce parts and wholes	Doubles and near doubles	Recognising a quarter of an object or a shape
Part-whole model	Subtract 1 using number bonds	Find a quarter of an object or shape
Writing number sentences	Subtraction – counting back and finding the difference	Recognise and find a quarter of a quantity
Fact Families – addition facts	Related facts	**Position and Direction**
Number bonds to 10	Missing number problems	Describe turns and position – left and right
Addition problems	**Place value (within 50)**	Describe position – forwards and backwards
Find a part	Count form 20 to 50	Describe position – above and below
Subtraction – find a part	Count by making groups of 10	Ordinal numbers
Fact families – the eight facts	Groups of tens and ones	**Place value (within 100)**
Subtraction and using a number line	Partition into tens and ones	Count from 50 to 100
Add or subtract 1 or 2	Using a number line to 50	Tens to 100
Shape	1 more, 1 less	Partition into tens and ones
Recognising and sorting 2D and 3D shapes	**Length and Height**	The number line to 100
Patterns with 2D and 3D shapes	Compare lengths and heights	1 more, 1 less
	Measure lengths using objects	Compare numbers with the same number of tens
	Measure lengths in centimetres	Compare any two numbers
	Mass and Volume	**Money**
	Heavier and lighter	Recognising coins, notes and counting in coins
	Measure and compare mass	**Time**
	Full and empty	Before and after
	Compare volume	Days of the week
	Measure and compare capacity	Months of the year
		Hours, minutes and seconds
		Tell the time to the hour
		Tell the time to the half hour

Year 2		
Autumn Term	Spring Term	Summer Term
Place value	**Money**	Fractions
Numbers to 20	Counting money – pounds and pence	Introduction to parts and whole
Counting objects to 100 by making 10's	Choosing notes and coins	Equal and unequal parts
Recognising tens and ones	Making the same amount	Recognise and find a half
Using a place value chart	Compare amounts of money	Recognise and find a quarter
Partitioning numbers to 100	Calculate with money	Recognise and find a third
Write numbers to 100 in expanded form	Make a pound, find change	Find the whole
10s and 1s on the number line to 100	Two step problems	Unit fractions and non-unit fractions
Estimate numbers on a number line	**Multiplication and Division**	Recognise equivalent fractions – half and two quarters
Compare objects and numbers	Recognising and making equal groups	Recognise and find three-quarters
Order objects and numbers	Add equal groups	Count in fractions up to a whole
Count in 2s, 5s, and 10s	Introduce the multiplication symbol	**Time**
Count in 3s	Multiplication sentences	O'clock and half past
Addition and Subtraction	Using arrays	Quarter past and quarter to
Number bonds to 10	Make equal groups – grouping and sharing	Tell time to and past the hour
Fact families – addition and subtraction bonds to 20	The 2 times table	Tell the time to 5 minutes
Related facts	Divide by 2	Minutes in an hour
Bonds to 100 (in tens)	Doubling and halving	Hours in a day
Add and subtract 1s	Odd and even numbers	**Statistics**
Add by making 10	**Length and Height**	Making tally charts , tables and block diagrams
Add three 1 digit numbers	Measure in cm and m	Draw and interpret pictograms
Add to the next 10 and across a 10	Compare and order lengths and heights	**Position and Direction**
Subtract across a 10 and form a 10	Four operations with lengths and heights	Language of position
10 more, 10 less	**Mass, Capacity and Temperature**	Describe movement and turns
Add and subtract 10s	Comparing mass	Shape patterns with turns
Add and subtract 2 digit numbers	Measuring in grams and kilograms	**Problem Solving**
Compare number sentences	Four operations with mass	
Missing number problems	Compare volume and capacity	
Shape	Measure in litres and millilitres	
Recognise 2-D and 3-D shapes	Four operations with volume and capacity	
Count sides and vertices on 2-D shapes	Temperature	
Draw 2-D shapes		
Lines of symmetry on shapes		
Sort 2 D and 3 D shapes		
Count faces, edges and vertices on 3D shapes		
Make patterns with 2D and 3D shapes		

Year 3		
Autumn Term	**Spring Term**	**Summer Term**
Place Value	**Multiplication and Division**	**Fractions**
Represent and partition numbers to 100	Multiples of 10 and related calculations	Add and subtract fractions
Number line to 100	Reasoning about multiplication	Partition the whole
Hundreds	Multiply a 2 digit number by a 1 digit number – no exchange and with exchange	Unit fractions of a set of objects
Represent and partition numbers to 1000	Link multiplication and division	Non-unit fractions of a set of objects
Hundreds, tens and ones	Divide a 2 digit number by a 1 digit number	Reasoning with fractions of an amount
Find 1, 10 or 100 more or less	Scaling	**Money**
Number line to 1,000	How many ways?	Pounds and pence and converting them
Compare and order numbers to 1,000	**Length and Perimeter**	Add and subtract money
Count in 50s	Measure in metres and centimetres	Finding change
Addition and subtraction	Measure in millimetres	**Time**
Apply number bonds within 10	Equivalent lengths (cm and m)	Roman numerals to 12
Add and subtract 1s, 10s and 100s	Perimeter on a grid	Tell the time to 5 minutes and to the minute
Spot the pattern	Perimeter of a rectangle and rectilinear shapes	Read time on a digital clock
Add two and subtract two numbers – no exchange	Perimeter of polygons	Use am and pm
Add and subtract 2 digit and 3 digit numbers	**Fractions**	Years months days
Number bonds to 100	Understand the denominator of unit fractions	Days and hours
Estimate answers	Compare and order unit fractions	Hours and minutes
Inverse operations	Understand the numerators or non-unit fractions	Minutes and seconds
Make decisions	Understand the whole	Units of time
Multiplication and Division	Compare and order non-unit fractions	Solve problems with time
Equal groups/arrays	Fractions and scales	**Shape**
Multiples of 2, 5 and 10	Fractions on a number line	Turns, angles and right angles
Sharing and grouping	Equivalent fractions on a number line	Comparing angles
Multiply and divide by 3	Equivalent fractions as bar models	Measure and draw angles accurately
Multiply and divide by 4	**Mass and Capacity**	Horizontal and vertical
Multiply and divide by 8	Use scales	Parallel and perpendicular
The 2, 4 and 8 times tables	Measure mass in grams and kilograms	Recognise and describe 2D shapes
	Equivalent masses	Draw polygons
	Comparing masses	Recognise, describe and make 3D shapes
	Add and subtract masses	**Statistics**
	Measure capacity and volume in litres and millilitres	Interpret and draw pictograms
	Equivalent capacities and volume	Interpret and draw bar charts
	Compare, add and subtract capacity and volume	Collect and represent data
		Two-way tables

Year 4		
Autumn Term	Spring Term	Summer Term
Place Value	**Multiplication and Division**	**Decimals**
Represent and partition numbers to 1,000	Using factor pairs	Make a whole with tenths and hundredths
Number line up to 1,000	Multiply by 10, 100	Partition and compare and order decimals
Represent numbers to 10,000	Divide by 10 and 100	Round to the nearest whole number
Partition numbers up to 10,000	Related facts – multiplication and division	Halves and quarters as decimals
Find 1, 10, 100 1,000 more or less	Informal written methods for multiplication	**Money**
Number line to 10,000	Multiply a 2 digit, 3 digit number by a 1 digit number	Write money using decimals
Compare and order numbers to 10,000	Divide a 2 digit , 3 digit number by a 1 digit number	Convert money between pounds and pence
Roman numerals	Correspondence problems	Compare amounts of money
Round to the nearest 10, 100, 1,000	Efficient multiplication	Estimate and calculate with money
Addition and subtraction	**Length and Perimeter**	Solve problems with money
Add and subtract 1s,10s, 100s and 1,000s	Measure in kilometres and metres	**Time**
Add up to 4 digit numbers with exchanging	Equivalent lengths	Years, weeks months and days
Subtract two 4 digit numbers – no exchanging	Perimeter on a grid	Hours minutes and seconds
Estimate answers & checking strategies	Perimeter of a rectangle	Convert time between analogue and digital times
Area	Perimeter of rectilinear shapes	Convert to and from the 24 hour clock
What is area?	Perimeter of polygons	**Shape**
Counting squares, making shapes and comparing areas	**Fractions**	Understand angles as turns
Multiplication and division	Understand the whole	Identify angles
Multiples of 3	Count beyond 1	Compare and order angles
Multiply and divide by 3 and 6	Partition a mixed number	Triangles, Quadrilaterals and Polygons
6 times tables and division facts	Number lines with mixed numbers	Lines of symmetry
Multiply and divide by 9	Compare and order mixed numbers	Complete a symmetric figure
9 times table and division facts	Convert mixed numbers to improper fractions	**Statistics**
The 3, 6 and 9 times tables	Convert improper fractions to mixed numbers	Interpret charts
7, 11, and 12 times tables and division facts	Equivalent fractions on a number line	Comparison, sum and difference
Multiply by 1 and 0	Equivalent fraction families	Interpret and draw line graphs
Divide a number by 1 and itself	Add two or more fractions and mixed numbers	Collect and represent data
Multiply 3 numbers	Subtract from whole amounts and mixed numbers	Two-way tables
	Decimals	**Position and Direction**
	Tenths as fractions and decimals	Describe position using coordinates
	Tenths on a place value chart and number line	Plot coordinates
	Divide a 1 digit and 2 digit number by 10	Draw 2D shapes on a grid
	Hundredths as a fractions and decimals	Translate on a grid
	Hundredths on a place value chart	Describe translation on a grid
	Divide a 1 or 2 digit number by 100	

Year 5		
Autumn Term	Spring Term	Summer Term
Place Value	**Multiplication and division**	**Shape**
Roman numerals to 1,000	Multiply up to a 4 digit number by a 1 digit number	Understand and use degrees
Numbers to 10,000, 100,000 and 1,000,000	Multiply a 2 digit number by a 2 digit number	Classify and estimate angles
Read and write numbers to 1,000,000	Multiply a 3 digit number by a 2 digit number	Measure angles up to 180 degrees
Powers of 10	Multiply a 4 digit number by a 2 digit number	Draw lines and angles accurately
10,100, 1,000, 10,000, 100,000 more or less	Solve problems with multiplication	Calculate angles around a point and on a straight line
Partition numbers to 1,000,000	Short division	Lengths and angles in shapes
Compare and order numbers to 1,000,000	Divide a 4 digit number by a 1 digit number	Regular and irregular polygons
Round to the nearest 10, 100 or 1,000	Divide with reminders	3D shapes
Round within 1,000,000	Solve problems with multiplication and division	**Position and Direction**
Addition and Subtraction	**Fractions**	Read and plot coordinates
Mental strategies	Multiply a unit fraction by an integer	Problem solving with coordinates
Add whole numbers with more than 4 digits	Multiply a non-unit fraction by an integer	Translation
Subtract whole numbers with more than 4 digits	Multiply a mixed number by an integer	Translation with coordinates
Round to check answers	Calculate a fraction of a quantity	Lines of symmetry
Inverse operation (addition and subtraction)	Find the whole	Reflection in horizontal and vertical lines
Multi-step addition and subtraction problems	Use fractions as operators	**Decimals**
Compare calculations and find missing numbers	**Decimals and Percentages**	Use know facts to add and subtract decimals within 1
Multiplication and Division	Decimals up to 2 places	Complements to 1
Multiples and common multiples	Equivalent fractions and decimals	Add and subtract decimals across 1
Factors and common factors	Thousandths as fractions and decimals	Add decimals and subtract decimals
Prime numbers	Thousandths on a place value chart	Decimal sequences
Square and cube numbers	Order and compare decimals with up to 3 decimal places	Multiply and divide by 10,100 and 1,000
Multiply by 10,100 and 1,000	Round to the nearest whole number	Multiply and divide decimals – missing values
Divide by 10,100, and 1,000	Round to 1 decimal place	**Negative numbers**
Multiples of 10, 100 and 1,000	Understand percentages as fractions and decimals	Count through zero in 1s and in multiples
Fractions	Equivalent fractions, decimals and percentages	Compare and order negative numbers
Find fractions equivalent to a unit fraction	**Perimeter and Area**	Find the difference
Find fractions equivalent to a non-unit fraction	Perimeter of rectangles and rectilinear shapes	**Converting units**
Recognise equivalent fractions	Perimeter of polygons	Kilograms and kilometres
Convert improper fractions to missed numbers	Area of rectangles	Millimetres and millilitres
Convert mixed numbers to improper fractions	Area of compound shapes	Convert units of length
Compare and order fractions	Estimate area	Convert between metric and imperial units
Add and subtract fractions with the same denominator	**Statistics**	Convert unit of time
Add mixed numbers		Calculate with timetables

Subtract fractions from mixed numbers	Draw, read and interpret line graphs	**Volume**
Subtract two mixed numbers	Read and interpret tables	Cubic centimetres
	Two-way tables	Compare and estimate volume
	Read and interpret tables	Estimate capacity

Year 6		
Autumn Term	**Spring Term**	**Summer Term**
Place Value	**Ratio**	Shape
Numbers to 1,000,000 and 10,000,000	Add or multiply?	Measure and classify angles
Read and write numbers to 10,000,000	Use ratio language	Calculate angles
Powers of 10	Introduction to the ratio symbol	Vertically opposite angles
Number line to 10,000,000	Ratio and fractions	Angles in a triangles, quadrilaterals and polygons
Compare and order any integers	Scale drawing	Circles
Round any integer	Use scale factors	Draw shapes accurately
Negative numbers	Similar shapes	Nets of 3D shapes
Four operations	Ratio problems	**Position and direction**
Add and subtract integers	Proportion problems	The first quadrant
Common factors and multiples	Recipes	Read and plot points in the four quadrants
Rules of divisibility	**Algebra**	Solve problems with coordinates
Prime numbers to 100	1 and 2 step function machines	Translations and reflections
Square and cube numbers	Form expressions	**Consolidation**
Multiply up to a 4 digit number by a 2 digit number	Substitution and formulae	Revision of all topics
Solve problems with multiplication	Form equations	Problem Solving
Short division	Solve 1 step and 2 step equations	Themed projects
Division using factors	Find pairs of values	
Long division with remainders	Solve problems with two unknowns	
Fractions	**Decimals**	
Equivalent fractions and simplifying	Place value within1, integers and decimals	
Equivalent fractions on a number line	Round, add and subtract decimals	
Compare and order (denominator and numerator)	Multiply by 10, 100 and 1,000	
Add and subtract simple fractions	Divide by 10,100 and 1,000	
Add and subtract mixed numbers	Multiply decimals by integers	
Multi step problems	Multiply and divide decimals in context	
Multiply fractions by integers and fractions	**Fractions, decimals and percentages**	
Divide a fraction by an integer	Decimals and fraction equivalents	
Mixed questions with fractions	Fractions as division	
Fraction of an amount – find the whole	Understand percentages	
Converting Units	Fractions to percentages	
Converting and calculating metric measures	Equivalent fractions, decimals and percentages	

Miles and Kilometres Imperial measures	Order fractions, decimals and percentages Percent of an amount Percentages – missing values **Area, perimeter and volume** Area and perimeter of shapes Area of triangles and parallelogram Volume of a cuboid **Statistics** Lind graphs Dual bar chart Read and interpret pie charts Pie charts with percentages Draw pie charts The mean	