## Maths long term plan 2023/24

Nursery		
Autumn	Spring	Summer
Daily whole class maths sessions	Daily whole class maths sessions	Daily whole class maths sessions
Nursery rhymes during circle times (puppets)	Nursery rhymes during circle times (puppets)	Nursery rhymes during circle times (puppets)
Daily book choice – comparison of height, counting,	Daily book choice – comparison of height,	Daily book choice – comparison of height,
more, less than	counting, more, less than	counting, more, less than
Enhancements in the classroom linked to topics	Enhancements in the classroom linked to	Enhancements in the classroom linked to
	topics	topics
Develop recognition of up to 2 objects without having		
to count	Develop recognition of up to 3 objects without	Develop recognition of up to 5 objects
Reciting numbers up to 3	having to count individually	without having to count individually
Say one number for each item in order: 1,2,3	Reciting numbers up to 5	Recite numbers up to 10
Show some finger numbers	Say one number for each item in order	Say one number for each item in order Show
Recognises some numerals and beginning to link them	Show some finger numbers	finger numbers up to 5
to amounts	Recognise numerals to 3 and able to link them	Know that the last number you counted tells
Experiment with their own symbols and marks	to amounts	you how many there are in total Recognise
Select shapes appropriately for tasks	Experiment with their own symbols and marks	numerals to 5 and able to link them to
Understand position through words alone	Solve real life mathematical problems with	amounts
Make comparisons between objects relating to size	numbers up to 3	Experiment with their own symbols and
Talk about and identify patterns around them Solve	Compare quantities "more than" and "fewer	marks
real-life mathematical problems with numbers up to 2	than" Combines shapes to make new ones	Solve real-life mathematical problems with
	Explore and talk about different 2D and 3D	numbers up to 5
	shapes Discuss routes and locations	Explore and talk about different 2D and 3 D
	Make comparisons between objects relating to	shapes, using informal mathematical
	length/height	language
	Extend and create ABAB patterns	Describe a familiar route
		Make comparisons between objects relating
		to weight/capacity
		Notice and correct an error in a simple
		repeating pattern

		Begin to describe a sequence of events using
		words such as first, then.
Reception		
Autumn	Spring	Summer
	'Alive in 5'	(To 20 and beyond)
'lust Like Me'	Number	Number
Number	Introducing zero	Building numbers beyond 10
Match and sort numbers	Comparing numbers to 5	Counting patterns beyond 10
Compare amounts	Composition of 4&5	
		Spatial reasoning
Measure, Shape and special thinking	Measure, Shape and special thinking	Spatial reasoning
Compare size , mass, & capacity	Compare mass	Match, rotate, manipulate
Exploring patern	Compare capacity	
		'first , then, now'
'lt's me 1,2.3	'Growing 6,7,8'	<u>Number</u>
<u>Number</u>	<u>Number</u>	Adding more
Representing 1, 2, 3	6,7,8	Taking away
Comparing 1, 2,3	Making pairs	
Composition of 1,2,3	Combining 2 groups	Spatial reasoning
		Spatial reasoning
Measure, Shape and special thinking	Measure, Shape and special thinking	Compose and decompose
Circles and triangles	Length & height	
Positional language	time	'Find my pattern'
		Number
'Light and dark'	'Building 9 and 10'	Doubling
Number	Number	Sharing and grouping

Representing numbers to 5	9&10	Even and odd
One more or less	Comparing numbers to 10	
	Bonds tp 10	Spatial reasoning
Measure, Shape and special thinking		Spatial reasoning
Shapes with 4 sides	Measure, Shape and special thinking	Visualise and build
Time	3D shape	
	pattern	'On the move'
		Number
		Deepening understanding
		Patterns and relationships
		Spatial reasoning
		Spatial reasoning
		mapping
	Year 1	
Autumn	Spring	Summer
To read and write numbers from 1 to 20 in	To read and write numbers from 1 to 50 in	To count to and across 100, forward and
numerals and words	numerals and words	backward, beginning with 0 or 1, or from any
		given number.
To compare numbers and objects	To identify 1 more or 1 less from a given number	
		To solve one-step problems involving
To order numbers and objects	To add and subtract 1-digit and 2- digit numbers	multiplication and division, by calculating the
	to 20, including zero.	answer using concrete objects, pictorial
To identify 1 more or 1 less from a given number		representations and arrays with the support of
	To solve one-step problems that involve addition	my teacher.
To read, write and interpret mathematical	and subtraction, using concrete objects and	
statements involving + - = signs.	pictorial representations, and missing number	To recognise, find and name a quarter as one of
	problems.	four equal parts of an object, shape or quantity.
To understand fact families		
	To measure and begin to record the following:	To recognise and use language relating to dates,
To represent and use number bonds and related	mass/weight.	including days of the week, weeks, months,
subtraction and addition facts within 10.		years.
	To measure and begin to record the following:	
To use subtraction to find the difference.	length and heights.	

To recognize and name common 2D change	To mossure and begin to record the following:	To tell the time to the hour and half past the
including circles and triangles.	capacity and volume.	these times.
To recognise and name common 3D shapes, including: cuboids (including cubes), pyramids	To compare, describe and solve practical	To sequence events in chronological order using language (e.g. before, after, next, first, today
spheres.	problems for: lengths and heights and	yesterday, tomorrow, morning, afternoon,
	mass/weight	evening).
	To compare, describe and solve practical	To compare, describe and solve practical
	problems for: capacity and volume	problems for: time.
		To recognise and know the value of different
		denominations of coins and notes.
		To describe position, direction and movement,
		including half, quarter and three-quarter turns .
	Year 2	
Autumn	Spring	<u>Summer</u>
To count in steps of 2 and 5 from 0, and in tens	To calculate the mathematical statements for	To tell and write the time to quarter past/to the
from any number, forward and backward.	multiplication and division within the	hour and draw the hands on a clock face to show
	multiplication tables and write them using the x ÷	these times.
To read and write numbers to at least 100 in	and = signs.	
numerals and in words.		To compare and sequence intervals of time.
	To understand that multiplication of two	
To compare and order numbers from 0 up to	numbers can be one in any order (commutative)	To choose and use appropriate standard units to
100; use < > and = signs.	and division of one number by another cannot.	estimate and measure: length/height in any
-		direction (m/cm); mass (kg/g) to the nearest
To recognise the place value of each digit in a 2-	To recognise that division is the inverse of	appropriate unit, using rulers and scales.
digit number.	multiplication and use to check calculations.	

		To compare and order lengths and mass, and
To count in steps of 3 from 0, and in tens from	To recall and use multiplication and division facts	record the results using >, < and =.
any number, forward and backward.	for the 2, 5 and 10 tables, including recognising	
	odd and even numbers.	
To recall and use addition and subtraction facts		To choose and use appropriate standard units to
to 20 fluently and derive and use related facts up		estimate and measure: temperature (°C);
to 100.	To identify 2D shapes on the surface of 3D	capacity (I/mI) to the nearest appropriate unit,
	shapes.	using thermometers and measuring vessels.
To add and subtract numbers mentally,		
including: 2-digit numbers and ones; 2-digit	To identify and describe the properties of 2D	To use mathematical vocabulary to describe
numbers and tens; two 2- digit numbers; adding	shapes, including the number of sides and line	position, direction and movement, including
three 1-digit numbers.	symmetry in a vertical line.	movement in a straight line distinguishing
To understand that addition of any two numbers	To identify and describe the properties of 3D	apples for quarter, balf and three quarter turns
can be done in any order (commutative) and	shapes including the number of edges vertices	(clockwise and anti-clockwise)
subtraction of one number from another cannot	and faces	
		To write simple fractions and recognise the
To recognise and use the inverse relationship	To compare and sort common 2D and 3D shapes	equivalence.
between addition and subtraction and use this to	and everyday objects.	
check calculations and missing number problems.		To recognise, find, name and write factions 1/3,
	To order and arrange combinations of	1/4, 2/4, 1/2, 3/4 of a length, shape, set of
To make equal groups	mathematical objects in patterns and sequences.	objects, or quantity.
To recognise and use symbols for pounds (£) and	To ask and answer simple questions by counting	
pence (p); combine amounts to make particular	the number of objects in each category and	
values.	sorting the categories by quantity.	
To find different combinations of poins that equal	To ask and answer questions about totalling and	
the same amounts of money		
	To interpret and construct: nictograms: tally	
	charts: block diagrams and simple tables	

To solve simple problems in a practical context		
involving addition and subtraction of money of		
the same unit, including giving change.		
	Year 3	
Autumn	Spring	Summer
Place Value	Multiplication and division	<b>Fractions</b>
Represent numbers to 100	Multiples of 10	
Partition numbers to 100	Multiply 2 digit by 1 digit, no exchange	Making the whole
Number line to 100	Multiply 2 digit by 1 digit, with exchange	Tenths
Hundreds	Link multiplication with division	
Represent numbers to 1,000	Divide 2 digit by 1 digit no exchange	Count in tenths
Partition numbers to 1,000	Divide 2 digit by 1 digit with exchange	Tenths as decimals
Flexible partitioning of numbers to 1000		Fractions on a number line
Hundreds, tens and ones	Length and Perimeter	fractions of a set of objects
Find 1, 10 or 100 more or less	Measure length in cm and m	equivalent fractions
Number line to 1,000	Measure in mm	compare fractions
Estimating on a number line to 1,000	M, CM, MM	order fractions
Compare numbers to 1,000	Equivalent lengths m and cm	Add fractions
Order numbers to 1,000	Equivalent lengths mm and cm	Subtract fractions
Count in 50s	Compare lengths	
	Add lengths	
	Subtract lengths	Money
Addition and Subtraction	Measure perimeter	Pounds and pence
Apply number bonds within 10	Calculate perimeter	Convert pounds and pence
Add and subtract 1s		Add money
Add and subtract 10s	Fractions	Subtract money
Add and subtract 100s	Understand denominators of unit fractions	Give change
Spot the pattern	Compareand order unit fractions	
Add 1s across a 10	Understand the numerator of non unit fractions	Time
Add 10s across a 100	Understand a whole	O clock

Subtract 1s across a 10	Fractions and scales	Quarter past quarter to
Subtract 10s across a 100	Fractions on a number line	Months and years
Make connections	Count in fractions on a number line	Hours in a day
Add two numbers (no exchange) Subtract two	Equivalent fractions on a number line	Telling the time to 5 minutes
numbers (no exchange) Add two numbers	Equivalent fractions as bar models	Telling the time to 1 minute
(across a 10)		Using am and pm
Add two numbers (across a 100) Subtract two	Mass and capacity	24 hour clock
numbers (across a 10) Subtract two numbers	Use scales	Finding duration
(across a 100)	Measure mass in grams	Comparing duration
Add 2-digit and 3-digit numbers Subtract a 2-digit	Measure in KG and G	Start and end times
number from a 3-digit number	Equivalent masses	Measuring times in seconds
Complements to 100	Compare mass	Problem solving with time
Estimate answers	Add and subtract mass	
Inverse operations	Measure capacity and volume in ml	Properties of shape
Make decisions	Measure capacity and volume in I and ml	Turns and angles
	Equivalent capacity	Right angles in shapes
Multiplication and Division	Compare capacity	Compare angles
Multiplication - equal groups	Add and subtract capacity and volume	Draw accurately
Use arrays		Horizontal and vertical
Multiples of 2		Parallel and perpendicular
Multiples of 5 and 10		Recognise and describe 2d shapes
Sharing and grouping		Recognise and describe 3d shapes
Multiply by 3		Make 3D shapes
Divide by 3		
The 3 times-table		<u>Statistics</u>
Multiply by 4		Make tally charts
Divide by 4		Draw pictograms
The 4 times-table		Interpret pictograms
Multiply by 8		Bar charts
Divide by 8		Tables
The 8 times-table		
The 2, 4 and 8 times-tables		

Year 4		
Autumn	Spring	Summer
Place Value	-Multiplication and division	Decimals
-Represent numbers to 1,000	Factor pairs	Make a whole
-Partition numbers to 1,000	-Use factor pairs	Write decimals
-Number line to 1,000	-Multiply by 10	Compare decimals
-Thousands	-Multiply by 100	Order decimals
-Represent numbers to 10,000	-Divide by 10	Round decimals
-Partition numbers to 10,000	-Divide by 100	Halves and quarters
-Flexible partitioning of numbers to 10,000	- Informal written methods for multiplication	
-Find 1, 10, 100, 1,000 more or less	-Multiply a 2-digit number by a 1-digit number	Money
-Number line to 10,000	-Multiply a 3-digit number by a 1-digit number	-Pounds & pence
-Estimate on a number line to 10,000	-Divide a 2-digit number by a 1-digit number (1)	-Ordering money
-Compare numbers to 10,000	-Divide a 3-digit number by a 1-digit number	-Add money
-Order numbers to 10,000	-Correspondence problems	-Subtract money
-Roman numerals	-Efficient multiplication	-Multiply money
-Round to the nearest 10		-Divide money
-Round to the nearest 100	Length and Perimeter	
-Round to the nearest 1,000	-Measure in kilometres and metres	Time
-Round to the nearest 10, 100 or 1,000	-Equivalent lengths (kilometres and metres)	-Units of time
	-Perimeter on a grid	-Hours, minutes, seconds
Addition and subtraction	-Perimeter of a rectangle	-Weeks, months, years
-Add and subtract 1s, 10s, 100s and 1,000s	-Perimeter of rectilinear shapes	-12 hour and 24-hour clocks
-Add up to two 4-digit numbers - no exchange	-Find missing lengths in rectilinear shapes	
-Add two 4-digit numbers - one exchange	-Calculate perimeter of rectilinear shapes	Statistics
-Add two 4-digit numbers– more than one	-Perimeter of regular polygons	-Bar charts
exchange		-Pictograms
-Subtract two 4-digit numbers - no exchange	Fractions	-Interpret charts
-Subtract two 4-digit numbers - one exchange	-Understand the whole	-Using tables
-Subtract two 4-digit numbers – more than one	-Count beyond 1	-Line graphs
exchange	-Partition a mixed number	Geometry
-Efficient subtraction	-Number lines with mixed numbers	-2D Shapes
-Estimate answers	-Compare and order mixed numbers	-Comparing angles

-Checking strategies	-Understand improper fractions -Convert mixed	-Identify angles
	numbers to improper fractions	-Triangles
Measurement: Area	-Convert improper fractions to mixed numbers	-Quadrilaterals
-What is area?	-Equivalent fractions on a number line	-Line of symmetry
-Counting squares	-Equivalent fraction families	
-Make shapes	-Add two or more fractions	Position & Direction
- Compare area	-Add fractions and mixed numbers	-Position
Multiplication and division	-Subtract two fractions	-Co-ordinates
-Multiply by 10 & 100	-Subtract from whole amounts	-Translations
-Divide by 10 & 100	-Subtract from mixed numbers	
-Multiply by 1 & 0	Decimals	
-Divide by 1 and itself	-Tenths as decimals	
-To recognise and use factor pairs and	-Tenths on a place value chart	
commutativity in mental calculations.	-Tenths on a number line	
-To multiply 2-digit and 3-digit numbers by a 1-	-Divide a 1-digit number by 10	
digit number using formal written layout.	-Divide a 2-digit number by 10	
-To divide 2-digit and 3-digit numbers by a 1-digit	-Hundredths as fractions	
number using formal written layout with no	-Hundredths as decimals	
remainder.	-Hundredths on a place value	
	-Divide a 1- or 2-digit number by 100	
	Year 5	
Autumn	Spring	<u>Summer</u>
Place Value	Multiplication & Division B	Shape
-Roman numerals to 1,000	- Multiply up to a 4-digit number by a 1-digit	Measuring angles in degrees
-Numbers to 10,000	number	Measuring with a protractor
-Numbers to 100,000	- Multiply a 2-digit number by a 2-digit number	Drawing lines and angles accurately
-Numbers to 1,000,000	(area model)	Calculating angles on a straight line
-Read and write numbers to 1,000,000	-Multiply a 2-digit number by a 2-digit number	Calculating angles round a point
-Powers of 10		Calculating lengths and angles in shapes

-10/100/1,000/10,000/100,000 more or less	- Multiply a 3-digit number by a 2-digit number	Regular and irregular polygons
-Partition numbers to 1,000,000	- Multiply a 4-digit number by a 2-digit number	Reasoning about 3d shapes
-Number line to 1,000,000	- Solve problems with multiplication	
-Compare and order numbers to 100,000	- Short division	Negative numbers
-Compare and order numbers to 1,000,000	- Divide a 4-digit number by a 1-digit number	
-Round to the nearest 10, 100 or 1,000	- Divide with remainders	Position & Direction
-Round within 100,000	- Efficient division	Position in the first quadrant
-Round within 1,000,000	- Solve problems with multiplication and division	Reflection
		Reflection with coordinates
Addition and subtraction	Fractions B	Translation with coordinates
-Mental strategies	- Multiply a unit fraction by an integer	
-Add whole numbers with more than four digits	- Multiply a non-unit fraction by an integer	Decimals
-Subtract whole numbers with more than four	- Multiply a mixed number by an integer	Adding and subtracting decimals within 1
digits	- Calculate a fraction of a quantity	Complements to 1
-Round to check answers	- Fraction of an amount	Adding decimals crossing the whole
-Inverse operations (addition and subtraction)	- Find the whole	Adding and subtracting decimals with the same
-Multi-step addition and subtraction problems	- Use fractions as operators	number of decimal places
-Compare calculations		Adding and subtracting decimals with a different
-Find missing numbers	Decimals & Percentages	number of decimal places
	-Decimals up to 2 decimal places	Adding and subtracting wholes as decimals
Multiplication & Division A	-Equivalent fractions and decimals (tenths)	Decimal sequences
-Multiples	- Equivalent fractions and decimals (hundredths)	Multiplying and dividing decimals by 10,100 and
-Common multiples	-Equivalent fractions and decimals	1000
-Factors		
-Common factors	Decimals & Percentages	Measurement - converting units
-Prime numbers	- Thousandths as fractions	Kilograms & kilometres
-Square numbers	- Thousandths as decimals	Milligrams & millilitres
-Cube numbers	- Thousandths on a place value chart	Metric & Imperial units
-Multiply by 10, 100 and 1,000	- Order and compare decimals (same number of	
-Divide by 10, 100 and 1,000	decimal places)	Volume
-Multiples of 10, 100 and 1,000	- Order and compare any decimals with up to 3	Compare volume
	decimal places	Estimate volume
Fractions A	- Round to the nearest whole number	Estimate capacity

-Find fractions equivalent to a unit fraction	- Round to 1 decimal place
-Find fractions equivalent to a non-unit fraction	- Understand percentages
-Recognise equivalent fractions	- Percentages as fractions
-Convert improper fractions to mixed numbers	- Percentages as decimals
-Convert mixed numbers to improper fractions	- Equivalent fractions, decimals and percentages
-Compare fractions less than 1	
-Order fractions less than 1	Perimeter & Area
-Compare and order fractions greater than 1	- Perimeter of rectangles
-Add and subtract fractions with the same	- Perimeter of rectilinear shapes
denominator	- Perimeter of polygons
-Add fractions within 1	- Area of rectangles
-Add fractions with total greater than 1 -Add to a	- Area of compound shapes
mixed number	- Estimate area
-Add two mixed numbers	
-Subtract fractions	Statistics
-Subtract from a mixed number	- Draw line graphs
-Subtract from a mixed number - breaking the	- 2 Read and interpret line graphs
whole	- Read and interpret tables
- Subtract two mixed numbers	- Two-way tables
	- Read and interpret timetables
	Year 6

## Year 6

Autumn	Spring	Summer
Place Value	Ratio & Proportion – add or multiply, use	Properties of shape
Numbers to 1,000,000, numbers to 10,000,000	ratio language, ratio symbol, ratio and	Measuring with a protractor, calculating angles,
Read and write numbers to 10,000,000	fractions, scale drawings, scale factors, ratio	vertically opposite angles, angles in triangle,
Powers of 10	problems, proportion problems	angles in special quadrilaterals, angles in regular
Number line to 10,000,000	Algebra – function machines, form	polygons, drawing shapes accurately and drawing
Compare and order any integers	expression, substitution, formula, 1 & 2 step	nets of 3d shapes
Round any integers	equations, solving problems with 2 unknowns	
Negative numbers	Decimals – place value within 1, round	Position and direction
	decimals, add, subtract, multiply & divide	The first quadrant
	decimals	Four quadrants

Addition, subtraction, multiplication and	Fractions, decimals & percentages – decimal and	Translations
division	fraction equivalents, fractions as divison,	reflections
Add and subtract integers	understanding %, fractions as %, equivalent	
Common factors	fractions, decimals and %, percentage of amount	
Common multiples	Area, Perimeter & Volume – area & perimeter,	
Rules of divisibility	area of triangles, area of a parallelogram, volume	
Primes to 100	of a cuboid	
Square and cube numbers	Statistics - line graphs, dual bar charts, pie	
Multiply up to a 4-digit number by a 2-digit	charts, mean	
number		
Solve problems with multiplication		
Short division		
Division using factors		
Introduction to long division		
Long division with remainders		
Solve problems with division		
Solve multi-step problems		
Order of operations		
Mental calculations and estimation		
Reason from known facts		
Fractions (and decimals)		
Equivalent fractions and simplifying		
Equivalent fractions on a number line		
Compare and order (denominator)		
Compare and order (numerator)		
Add and subtract simple fractions		
Add and subtract any two fractions		
Add mixed numbers		
Subtract mixed numbers		
Multi-step problems		
Multiply fractions by integers		
Multiply fractions by fractions		

Divide a fraction by an integer	
Divide any fraction by an integer	
Mixed questions with fractions	
Fraction of an amount	
Fraction of an amount - find the whole	
Converting Units	
Metric measures	
Convert metric measures	
Calculate with metric measures	
Miles and kilometres	
Imperial measures	