

Maths (White Rose & Mastering Number) – Progression of Knowledge

The maths gems of fluency, reasoning and problem solving will be visited within each small step wherever possible.

The Key Knowledge for maths is situated approximately where it is expected to be taught. Teachers should use their professional experience to make any necessary changes in terms of when, where and how each small step of knowledge is taught.

	EYFS
Autumn	<p>Subitising: I can perceptually subitise within 3. I can identify sub-groups in larger arrangements. I can create my own patterns for numbers within 4. I can use my fingers to represent quantities which I can subitise. I can experience subitising in a range of contexts, including temporal patterns made by sounds.</p> <p>Cardinality, ordinality and counting I know how to relate the counting sequence to cardinality, seeing that the last number spoken gives the number in the entire set. I have experienced a wide range of opportunities to develop my knowledge of the counting sequence, including through rhyme and song. I have experienced a wide range of opportunities to develop 1:1 correspondence, including by coordinating movement and counting. I have been given opportunities to develop an understanding that anything can be counted, including actions and sounds. I know a range of strategies which support accurate counting.</p> <p>Composition I know that all numbers can be made of 1s. I know how to compose my own collections within 4.</p> <p>Comparison I understand that sets can be compared according to a range of attributes, including by their numerosity. I can use the language of comparison, including 'more than' and 'fewer than'. I can compare sets 'just by looking'.</p> <p>Subitising: I can subitise within 5, perceptually and conceptually, depending on the arrangements.</p> <p>Cardinality, ordinality and counting I know how to continue to develop my counting skills. I know how to explore the cardinality of 5, linking this to dice patterns and 5 fingers on 1 hand. I know how to count beyond 5. I can recognise some numerals, relating these to quantities I can subitise and count.</p> <p>Composition I know how to explore the concept of 'wholes' and 'parts' by looking at a range of objects that are composed of parts, some of which can be taken apart and some of which cannot. I know how to explore the composition of numbers within 5.</p> <p>Comparison I can compare sets using a variety of strategies, including 'just by looking', by subitising and by matching. I can compare sets by matching, seeing that when every object in a set can be matched to one in the other set, they contain the same number and are equal amounts.</p> <p>Shape, Space and Measure I know how to find and match objects which are the same. I know that collections can be sorted into sets based on attributes such as colour, size or shape. I know the same collection can be sorted in different ways. I know how to come up with my own criteria for sorting. I know that objects can be compared and ordered based on their size. I can use language such as big and little, tall and short to describe a range of objects in the classroom. I can copy, continue and create my own simple repeating patterns. I know that circles have 1 curved side. I know that triangles have 3 straight sides. I can recognise a circle and a triangle. I can build my own circles and triangles.</p>

	<p>I know that squares and rectangles have 4 straight sides and 4 corners. I can recognise these shapes on everyday items in the classroom and outside. I can build my own squares and rectangles. I can recognise squares and rectangles in a variety of different sizes and orientations. I can spot other shapes with 4 sides. I can talk about night and day and order key events in my daily life. I can use appropriate language to describe when events happen (eg. day, night, morning, afternoon, before, after, today, tomorrow). I know how to measure time in simple ways.</p>
Spring	<p>Subitising I can confidently subitise by continuing to explore patterns within 5, including structured and random arrangements. I can explore a range of patterns made by some numbers greater than 5, including structured patterns in which 5 is a clear part. I can continue to match arrangements to finger patterns.</p> <p>Cardinality, ordinality and counting I can verbally count to 20 and beyond. I know how to develop my object counting skills, using a range of strategies to develop accuracy. I know how to link counting to cardinality, including using my fingers to represent quantities between 5 and 10. I can order numbers, linking cardinal and ordinal representations of number.</p> <p>Composition I can continue to explore the composition of 5 and practise recalling 'missing' or 'hidden' parts for 5. I can explore the composition of 6, linking this to familiar patterns, including symmetrical patterns I am beginning to see that numbers within 10 can be composed of '5 and a bit'.</p> <p>Comparison I can continue to compare sets using the language of comparison. I can play games which involve comparing sets. I can continue to compare sets by matching, identifying when sets are equal. I can explore ways of making unequal sets equal</p> <p>Subitising I can explore symmetrical patterns, in which each side is a familiar pattern, linking this to 'doubles'.</p> <p>Cardinality, ordinality and counting I can continue to consolidate my understanding of cardinality, working with larger numbers within 10 I am becoming more familiar with the counting pattern beyond 20.</p> <p>Composition I can explore the composition of odd and even numbers, looking at the 'shape' of these numbers I am beginning to link even numbers to doubles I am beginning to explore the composition of numbers within 10.</p> <p>Comparison I can compare numbers, reasoning about which is more, using both an understanding of the 'howmanyness' of a number, and its position in the number system.</p> <p>Shape, Space and Measure I know how to make direct comparisons of weight-saying which one feels heaviest and checking using scales. I can use the language of heavy, heavier than, heaviest, light, lighter than, lightest to compare items. I know that larger items are not always heavy and small items are not always light. I know how to show nearly full, half full, nearly empty and empty. I know how to explore capacity using different materials such as water, sand, rice and beads. I know how to make direct comparisons by pouring from one container to another. I can use the language of tall, thin, narrow, wide and shallow. I know how to make indirect comparisons by counting how many pots it takes to fill one container.</p> <p>I can use the correct language to describe length and height. I know how to use specific vocabulary relating to length (longer, shorter), height (taller, shorter) and breadth (wider, narrower). I can make direct and indirect comparisons. I can order and sequence important times in my day using language such as now, before, later,</p>

	<p>soon, after, then and next to describe when events happen. I can recognise that regular events happen on the same day each week and can use the vocabulary 'yesterday', 'today', and 'tomorrow' to describe when events happen. I can describe significant events in my life and talk about events I am looking forward to. I know that some processes, such as growing vegetables, take a longer time.</p> <p>I can explore and manipulate 3D shapes in my play. I know which 3D shapes stack and which ones roll and can explain why. I know the name of some 3D shapes. I can talk about the similarities and differences between the shapes. I can sort the shapes according to what I notice.</p> <p>I can explore more complex patterns which use items more than once in each repeat (for example, ABB, AAB, AABB, AA,BBB). I can say patterns aloud. I can create patterns around the edge of shapes as well as in straight lines.</p>
Summer	<p>Subitising I can continue to practise increasingly familiar subitising arrangements, including those which expose '1 more' or 'doubles' patterns I can use my subitising skills to enable me to identify when patterns show the same number but in a different arrangement, or when patterns are similar but have a different number I know how to subitise structured and unstructured patterns, including those which show numbers within 10, in relation to 5 and 10 I can be encouraged to identify when it is appropriate to count and when groups can be subitised.</p> <p>Cardinality, ordinality and counting I can continue to develop my verbal counting to 20 and beyond, including counting from different starting numbers I can continue to develop my confidence and accuracy in both verbal and object counting.</p> <p>Composition I know how to explore the composition of 10.</p> <p>Comparison I can order sets of objects, linking this to my understanding of the ordinal number system I know how to consolidate my understanding of concepts previously taught through working in a variety of contexts and with different numbers.</p> <p>Shape, Space and Measure I can complete jigsaws and shape puzzles. I can select and rotate shapes to fill a given space. I can explain why I chose a particular shape and why a different shape wouldn't fit. I can match arrangements of shapes and can use positional language to describe where the shapes are in relation to one another. I can select shapes to complete picture boards or tangram outlines.</p> <p>I know that shapes can be combined and separated to make new shapes. I can investigate how many different ways a given shape can be built using smaller shapes. I can explore the different shapes I can make by combining a set of shapes in different ways.</p> <p>I can replicate simple constructions, models, real places and places in stories. I know that I can look at these replications from different positions. I can use positional language to describe where objects are in relation to other items. I can play barrier games. I can follow simple verbal instructions as I build. I can explore and investigate relationships between numbers and shapes. I can use Cuisenaire rods, pattern blocks and the unit construction blocks to explore these relationships. I can copy, continue and create a widening range of repeating patterns and symmetrical constructions. I know that we can make maps and plans to represent places and can use them to see where things are in relation to other things. I can look at and discuss different maps. I can create my own maps to represent the models I build, familiar places and places in stories.</p>

	Year 1
Autumn	Y1 AUTUMN BLOCK 1 Number: Place Value (within 10)
	Sort objects
	Count objects
	Count objects from a larger group
	Represent objects
	Recognise numbers as words
	Count on from any number
	1 more
	Count backwards within 10
	1 less
	Compare groups by matching
	Fewer, more, same
	Less than, greater than, equal to
	Compare number
	Order objects and numbers
	The number line
	Y1 AUTUMN BLOCK 2 Number: Addition and Subtraction (within 10)
	Introduce parts and wholes
	Part-whole model
	Write number sentences
	Fact families - addition facts
Number bonds within 10	
Systematic number bonds within 10	
Number bonds to 10	
Addition - add together	
Addition - add more	
Addition problems	
Find a part	
Subtraction - find a part	
Fact families - the eight facts	
Subtraction - take away/crossing out (How many left?)	
Subtraction - take away (How many left?)	
Subtraction on a number line	
Add or subtract 1 or 2	
Y1 AUTUMN BLOCK 3 Geometry: Shape	
Recognise and name 3-D shapes	
Sort 3-D shapes	

	<p>Recognise and name 2-D shapes</p> <p>Sort 2-D shapes</p> <p>Patterns with 2-D and 3-D shapes</p>
Spring	<p>Y1 SPRING BLOCK 1 Number: Place Value (within 20)</p> <p>Count within 20</p> <p>Understand 10</p> <p>Understand 11, 12 and 13</p> <p>Understand 14, 15 and 16</p> <p>Understand 17, 18 and 19</p> <p>Understand 20</p> <p>1 more and 1 less</p> <p>The number line to 20</p> <p>Use a number line to 20</p> <p>Estimate on a number line to 20</p> <p>Compare numbers to 20</p> <p>Order numbers to 20</p> <p>Y1 SPRING BLOCK 2 Number: Addition and Subtraction (within 20)</p> <p>Add by counting on within 20</p> <p>Add ones using number bonds</p> <p>Find and make number bonds to 20</p> <p>Doubles</p> <p>Near doubles</p> <p>Subtract ones using number bonds</p> <p>Subtraction – counting back</p> <p>Subtraction – finding the difference</p> <p>Related facts</p> <p>Missing number problems</p> <p>Y1 SPRING BLOCK 3 Number: Place Value (within 50)</p> <p>Count from 20 to 50</p> <p>20, 30, 40 and 50</p> <p>Count by making groups of tens</p> <p>Groups of tens and ones</p> <p>Partition into tens and ones</p> <p>The number line to 50</p> <p>Estimate on a number line to 50</p> <p>1 more, 1 less</p> <p>Y1 SPRING BLOCK 4 Measurement: Length and Height</p> <p>Compare lengths and heights</p> <p>Measure length using objects</p>

	<p>Measure length in centimetres</p> <p>Y1 SPRING BLOCK 5 Measurement: Mass and Volume</p> <p>Heavier and lighter</p> <p>Measure mass</p> <p>Compare mass</p> <p>Full and empty</p> <p>Compare volume</p> <p>Measure capacity</p> <p>Compare capacity</p>
<p>Summer</p>	<p>SUMMER BLOCK 1 Number: Multiplication and Division</p> <p>Count in 2s</p> <p>Count in 10s</p> <p>Count in 5s</p> <p>Recognise equal groups</p> <p>Add equal groups</p> <p>Make arrays</p> <p>Make doubles</p> <p>Make equal groups - grouping</p> <p>Make equal groups - sharing</p> <p>SUMMER BLOCK 2 Number: Fractions</p> <p>Recognise a half of an object or a shape</p> <p>Find a half of an object or a shape</p> <p>Recognise half of a quantity</p> <p>Find a half of a quantity</p> <p>Recognise a quarter of an object or a shape</p> <p>Find a quarter of an object or a shape</p> <p>Recognise a quarter of a quantity</p> <p>Find a quarter of a quantity</p> <p>SUMMER: BLOCK 3 Geometry: Position and Direction</p> <p>Describe turns</p> <p>Describe position - left and right</p> <p>Describe position - forwards and backwards</p> <p>Describe position - above and below</p> <p>Ordinal numbers</p> <p>SUMMER: BLOCK 4 Number: Place Value (within 100)</p> <p>Count from 50 to 100</p> <p>Tens to 100</p> <p>Partition into tens and ones</p> <p>The number line to 100</p>

	<p>1 more, 1 less</p> <p>Compare numbers with the same number of tens</p> <p>Compare any two numbers</p> <p>SUMMER: BLOCK 5 Measurement: Money</p> <p>Unitising</p> <p>Recognise coins</p> <p>Recognise notes</p> <p>Count in coins</p> <p>SUMMER: BLOCK 6 Measurement: Time</p> <p>Before and after</p> <p>Days of the week</p> <p>Months of the year</p> <p>Hours, minutes and seconds</p> <p>Tell the time to the hour</p> <p>Tell the time to the half hour</p>
	<p>Year 2</p>
<p>Autumn</p>	<p>Y2 AUTUMN BLOCK 1 Number: Place Value</p> <p>Numbers to 20</p> <p>Count objects to 100 by making 10s</p> <p>Recognise tens and ones</p> <p>Use a place value chart</p> <p>Partition numbers to 100</p> <p>Write numbers to 100 in words</p> <p>Flexibly partition numbers to 100</p> <p>Write numbers to 100 in expanded form</p> <p>10s on the number line to 100</p> <p>10s and 1s on the number line to 100</p> <p>Estimate numbers on a number line</p> <p>Compare objects</p> <p>Compare numbers</p> <p>Order objects and numbers</p> <p>Count in 2s, 5s and 10s</p> <p>Count in 3s</p> <p>Y2 AUTUMN BLOCK 2 Number: Addition and Subtraction</p> <p>Bonds to 10</p> <p>Fact families - addition and subtraction bonds within 20</p> <p>Related facts</p> <p>Bonds to 100 (tens)</p> <p>Add and subtract 1s</p>

Add by making 10
Add three 1-digit numbers
Add to the next 10
Add across a 10
Subtract across 10
Subtract from a 10
Subtract a 1-digit number from a 2-digit number (across a 10)
10 more, 10 less
Add and subtract 10s
Add two 2-digit numbers (not across a 10)
Add two 2-digit number (across a 10)
Subtract two 2-digit numbers (not across a 10)
Subtract two 2-digit number (across a 10)
Mixed addition and subtraction
Compare number sentences
Missing number problems

Y2 AUTUMN BLOCK 3 Geometry: Shape

Recognise 2-D and 3-D shapes
Count sides on 2-D shapes
Count vertices on 2-D shapes
Draw 2-D shapes
Lines of symmetry on shapes
Use lines of symmetry to complete shapes
Sort 2-D shapes
Count faces on 3-D shapes
Count edges on 3-D shapes
Count vertices on 3-D shapes
Sort 3-D shapes
Make patterns with 2-D and 3-D shapes

Spring

Y2 SPRING BLOCK 1 Measurement: Money

Count money - pence
Count money - pounds (notes and coins)
Count money - pounds and pence
Choose notes and coins
Make the same amount
Compare amounts of money
Calculate with money
Make a pound

Find change

Two-step problems

Y2 SPRING BLOCK 2 Number: Multiplication and Division

Recognise equal groups

Make equal groups

Add equal groups

Introduce the multiplication symbol

Multiplication sentences

Use arrays

Make equal groups - grouping

Make equal groups - sharing

The 2 times-table

Divide by 2

Doubling and halving

Odd and even numbers

The 10 times-table

Divide by 10

The 5 times-table

Divide by 5

The 5 and 10 times-tables

Y2 SPRING BLOCK 3 Measurement: Length and Height

Measure in centimetres

Measure in metres

Compare lengths and heights

Order lengths and heights

Four operations with lengths and heights

Y2 SPRING BLOCK 4 Measurement: Mass, Capacity and Temperature

Compare mass

Measure in grams

Measure in kilograms

Four operations with mass

Compare volume and capacity

Measure in millilitres

Measure in litres

Four operations with volume and capacity

Temperature

Summer

SUMMER BLOCK 1 Number: Fractions

Introduction to parts and whole

Equal and unequal parts

Recognise a half

Find a half

Recognise a quarter

Find a quarter

Recognise a third

Find a third

Find the whole

Unit fractions

Non-unit fractions

Recognise the equivalence of a half and two-quarters

Recognise three-quarters

Find three-quarters

Count in fractions up to a whole

SUMMER BLOCK 2 Measurement: Time

O'clock and half past

Quarter past and quarter to

Tell the time past the hour

Tell the time to the hour

Tell the time to 5 minutes

Minutes in an hour

Hours in a day

SUMMER BLOCK 3 Statistics

Make tally charts

Tables

Block diagrams

Draw pictograms (1–1)

Interpret pictograms (1–1)

Draw pictograms (2, 5 and 10)

Interpret pictograms (2, 5 and 10)

SUMMER BLOCK 4 Geometry: Position and direction

Language of position

Describe movement

Describe turns

Describe movement and turns

Shape patterns with turns

Year 3

Autumn

Y3 AUTUMN BLOCK 1 Number: Place Value

Represent numbers to 100

Partition numbers to 100

Number line to 100

Hundreds

Represent numbers to 1000

Partition numbers to 1000

Flexible partitioning of numbers to 1000

Hundreds, tens and ones

Find 1, 10 or 100 more or less

Number line to 1000

Estimating on a number line to 1000

Compare numbers to 1000

Order numbers to 1000

Count in 50s

Y3 AUTUMN BLOCK 2 Number: Addition and Subtraction

Apply number bonds within 10

Add and subtract 1s

Add and subtract 10s

Add and subtract 100s

Spot the pattern

Add 1s across a 10

Add 10s across a 100

Subtract 1s across a 10

Subtract 10s across a 100

Make connections

Add two numbers (no exchange)

Subtract two numbers (no exchange)

Add two numbers (across a 10)

Add two numbers (across a 100)

Subtract two numbers (across a 10)

Subtract two numbers (across a 100)

Add 2-digit and 3-digit numbers

Subtract a 2-digit number from a 3-digit number

Complements to 100

Estimate answers

Inverse operations

Make decisions

Y3 AUTUMN: BLOCK 3 Number: Multiplication and Division A

Multiplication - equal groups

Use arrays

Multiples of 2

	<p>Multiples of 5 and 10</p> <p>Sharing and grouping</p> <p>Multiply by 3</p> <p>Divide by 3</p> <p>The 3 times-table</p> <p>Multiply by 4</p> <p>Divide by 4</p> <p>The 4 times-table</p> <p>Multiply by 8</p> <p>Divide by 8</p> <p>The 8 times-table</p> <p>The 2, 4 and 8 times-tables</p>
Spring	<p>Y3 SPRING BLOCK 1 Number: Multiplication and Division B</p> <p>Multiples of 10</p> <p>Related calculations</p> <p>Reasoning about multiplication</p> <p>Multiply a 2-digit number by a 1-digit number - no exchange</p> <p>Multiply a 2-digit number by a 1-digit number - with exchange</p> <p>Link multiplication and division</p> <p>Divide a 2-digit number by a 1-digit number - no exchange</p> <p>Divide a 2-digit number by a 1-digit number - flexible partitioning</p> <p>Divide a 2-digit number by a 1-digit number - with remainders</p> <p>Scaling</p> <p>How many ways?</p> <p>Y3 SPRING BLOCK 2 Measurement: Length and Perimeter</p> <p>Measure in metres and centimetres</p> <p>Measure in millimetres</p> <p>Measure in centimetres and millimetres</p> <p>Metres, centimetres and millimetres</p> <p>Equivalent lengths (metres and centimetres)</p> <p>Equivalent lengths (centimetres and millimetres)</p> <p>Compare lengths</p> <p>Add lengths</p> <p>Subtract lengths</p> <p>What is perimeter?</p> <p>Measure perimeter</p> <p>Calculate perimeter</p> <p>Y3 SPRING BLOCK 3 Number: Fractions A</p> <p>Understand the denominators of unit fractions</p>

Compare and order unit fractions
Understand the numerators of non-unit fractions
Understand the whole
Compare and order non-unit fractions
Fractions and scales
Fractions on a number line
Count in fractions on a number line
Equivalent fractions on a number line
Equivalent fractions as bar models

Y3 SPRING BLOCK 4 Measurement: Mass and Capacity

Use scales
Measure mass in grams
Measure mass in kilograms and grams
Equivalent masses (kilograms and grams)
Compare mass
Add and subtract mass
Measure capacity and volume in millilitres
Measure capacity and volume in litres and millilitres
Equivalent capacities and volumes (litres and millilitres)
Compare capacity and volume
Add and subtract capacity and volume

Summer

Y3 SUMMER BLOCK 1 Number: Fractions B

Add fractions
Subtract fractions
Partition the whole
Unit fractions of a set of objects
Non-unit fractions of a set of objects
Reasoning with fractions of an amount

Y3 SUMMER BLOCK 2 Measurement: Money

Pounds and pence
Convert pounds and pence
Add money
Subtract money
Find change

Y3 SUMMER BLOCK 3 Measurement: Time

Roman numerals to 12
Tell the time to 5 minutes
Tell the time to the minute
Read time on a digital clock

Use a.m. and p.m.
Years, months and days
Days and hours
Hours and minutes - use start and end times
Hours and minutes - use durations
Minutes and seconds
Units of time
Solve problems with time

Y3 SUMMER BLOCK 4 Geometry: Shape

Turns and angles
Right angles
Compare angles
Measure and draw accurately
Horizontal and vertical
Parallel and perpendicular
Recognise and describe 2-D shapes
Draw polygons
Recognise and describe 3-D shapes
Make 3-D shapes

Y3 SUMMER BLOCK 5 Statistics

Interpret pictograms
Draw pictograms
Interpret bar charts
Draw bar charts
Collect and represent data
Two-way tables

Year 4

Autumn 1

Y4 AUTUMN BLOCK 1 Number: Place Value

Represent numbers to 1000
Partition numbers to 1000
Number line to 1000
Thousands
Represent numbers to 10 000
Partition numbers to 10 000
Flexible partitioning of numbers to 10 000
Find 1, 10, 100, 1000 more or less
Number line to 10 000
Estimate on a number line to 10 000
Compare numbers to 10 000

Order numbers to 10 000

Roman numerals

Round to the nearest 10

Round to the nearest 100

Round to the nearest 1000

Round to the nearest 10 000

Y4 AUTUMN BLOCK 2 Number: Addition and Subtraction

Add and subtract 1s, 10s, 100s and 1,000s

Add up to two 4-digit numbers - no exchange

Add two 4-digit numbers - one exchange

Add two 4-digit numbers - more than one exchange

Subtract two 4-digit numbers - no exchange

Subtract two 4-digit numbers - one exchange

Subtract two 4-digit numbers - more than one exchange

Efficient subtraction

Estimate answers

Checking strategies

Y4 AUTUMN BLOCK 3 Measurement: Area

What is area?

Counting squares

Make shapes

Compare area

Y4 AUTUMN BLOCK 4 Number: Multiplication and Division A

Multiples of 3

Multiply and divide by 6

6 times-table and division facts

Multiply and divide by 9

9 times-table and division facts

The 3, 6 and 9 times-tables

Multiply and divide by 7

7 times-table and division facts

11 times-table and division facts

12 times-table and division facts

Multiply by 1 and 0

Divide by 1 and itself

Multiply three numbers

Spring 1

Y4 SPRING BLOCK 1 Number: Multiplication and Division B

Factor pairs

Use factor pairs

Multiply by 10

Multiply by 100

Divide by 10

Divide by 100

Related facts - multiplication and division

Informal written methods for multiplication

Multiply a 2-digit number by a 1-digit number

Multiply a 3-digit number by a 1-digit number

Divide a 2-digit number by a 1-digit number (1)

Divide a 2-digit number by a 1-digit number (2)

Divide a 3-digit number by a 1-digit number

Correspondence problems

Efficient multiplication

Y4 SPRING BLOCK 2 Measurement: Length and Perimeter

Measure in kilometres and metres

Equivalent lengths (kilometres and metres)

Perimeter on a grid

Perimeter of a rectangle

Perimeter of rectilinear shapes

Find missing lengths in rectilinear shapes

Calculate perimeter of rectilinear shapes

Perimeter of regular polygons

Perimeter of polygons

Y4 SPRING BLOCK 3 Number: Fractions

Understand the whole

Count beyond 1

Partition a mixed number

Number lines with mixed numbers

Compare and order mixed numbers

Understand improper fractions

Convert mixed numbers to improper fractions

Convert improper fractions to mixed numbers

Equivalent fractions on a number line

Equivalent fraction families

Add two or more fractions

Add fractions and mixed numbers

Subtract two fractions

Subtract from whole amounts

Subtract from mixed numbers

Y4 SPRING BLOCK 4 Number: Decimals A

Tenths as fractions
Tenths as decimals
Tenths on a place value chart
Tenths on a number line
Divide a 1-digit number by 10
Divide a 2-digit number by 10
Hundredths as fractions
Hundredths as decimals
Hundredths on a place value chart
Divide a 1- or 2-digit number by 100

Summer

Y4 SUMMER BLOCK 1 Number: Decimals B

Make a whole with tenths
Make a whole with hundredths
Partition decimals
Flexibly partition decimals
Compare decimals
Order decimals
Round to the nearest whole number
Halves and quarters as decimals

Y4 SUMMER BLOCK 2 Measurement: Money

Write money using decimals
Convert between pounds and pence
Compare amounts of money
Estimate with money
Calculate with money
Solve problems with money

Y4 SUMMER BLOCK 3 Measurement: Time

Years, months, weeks and days
Hours, minutes and seconds
Convert between analogue and digital times
Convert to the 24-hour clock
Convert from the 24-hour clock

Y4 SUMMER BLOCK 4 Geometry: Shape

Understand angles as turns
Identify angles
Compare and order angles
Triangles

	<p>Quadrilaterals</p> <p>Polygons</p> <p>Lines of symmetry</p> <p>Complete a symmetric figure</p> <p>Y4 SUMMER BLOCK 5 Statistics</p> <p>Interpret charts</p> <p>Comparison, sum and difference</p> <p>Interpret line graphs</p> <p>Draw line graphs</p> <p>Y4 SUMMER BLOCK 6 Geometry: Position and direction</p> <p>Describe position using coordinates</p> <p>Plot coordinates</p> <p>Draw 2-D shapes on a grid</p> <p>Translate on a grid</p> <p>Describe translation on a grid</p>
	<p>Year 5</p>
<p>Autumn 1</p>	<p>Y5 AUTUMN BLOCK 1 Number: Place Value</p> <p>Roman numerals to 1000</p> <p>Numbers to 10 000</p> <p>Numbers to 100 000</p> <p>Numbers to 1 000 000</p> <p>Read and write numbers to 1 000 000</p> <p>Powers of 10</p> <p>10/100/1 000/10 000/100 000 more or less</p> <p>Partition numbers to 1 000 000</p> <p>Number line to 1 000 000</p> <p>Compare and order numbers to 100 000</p> <p>Compare and order numbers to 1 000 000</p> <p>Round to the nearest 10, 100 or 1000</p> <p>Round within 100 000</p> <p>Round within 1 000 000</p> <p>Y5 AUTUMN BLOCK 2 Number: Addition and Subtraction</p> <p>Mental strategies</p> <p>Add whole numbers with more than four digits</p> <p>Subtract whole numbers with more than four digits</p> <p>Round to check answers</p> <p>Inverse operations (addition and subtraction)</p> <p>Multi-step addition and subtraction problems</p> <p>Compare calculations</p>

Find missing numbers

Y5 AUTUMN BLOCK 3 Number: Multiplication and Division A

Multiples

Common multiples

Factors

Common factors

Prime numbers

Square numbers

Cube numbers

Multiply by 10, 100 and 1000

Divide by 10, 100 and 1000

Multiples of 10, 100 and 1000

Y5 AUTUMN BLOCK 4 Number: Fractions A

Find fractions equivalent to a unit fraction

Find fractions equivalent to a non-unit fraction

Recognise equivalent fractions

Convert improper fractions to mixed numbers

Convert mixed numbers to improper fractions

Compare fractions less than 1

Order fractions less than 1

Compare and order fractions greater than 1

Add and subtract fractions with the same denominator

Add fractions within 1

Add fractions with total greater than 1

Add to a mixed number

Add two mixed numbers

Subtract fractions

Subtract from a mixed number

Subtract from a mixed number - breaking the whole

Subtract two mixed numbers

Spring 1

Y5 SPRING BLOCK 1 Number: Multiplication and Division B

Multiply up to a 4-digit number by a 1-digit number

Multiply a 2-digit number by a 2-digit number (area model)

Multiply a 2-digit number by a 2-digit number

Multiply a 3-digit number by a 2-digit number

Multiply a 4-digit number by a 2-digit number

Solve problems with multiplication

Short division

Divide a 4-digit number by a 1-digit number

Divide with remainders

Efficient division

Solve problems with multiplication and division

Y5 SPRING BLOCK 2 Number: Fractions B

Multiply a unit fraction by an integer

Multiply a non-unit fraction by an integer

Multiply a mixed number by an integer

Calculate a fraction of a quantity

Fraction of an amount

Find the whole

Use fractions as operators

Y5 SPRING BLOCK 3 Number: Decimals and Percentages

Decimals up to 2 decimal places

Equivalent fractions and decimals (tenths)

Equivalent fractions and decimals (hundredths)

Equivalent fractions and decimals

Thousandths as fractions

Thousandths as decimals

Thousandths on a place value chart

Order and compare decimals (same number of decimal places)

Order and compare any decimals with up to 3 decimal places

Round to the nearest whole number

Round to 1 decimal place

Understand percentages

Percentages as fractions

Percentages as decimals

Equivalent fractions, decimals and percentages

Y5 SPRING BLOCK 4 Measurement: Perimeter and Area

Perimeter of rectangles

Perimeter of rectilinear shapes

Perimeter of polygons

Area of rectangles

Area of compound shapes

Estimate area

Y5 SPRING BLOCK 5 Statistics

Draw line graphs

Read and interpret line graphs

Read and interpret tables

Two-way tables

	Read and interpret timetables
Summer	<p>Y5 SUMMER BLOCK 1 Geometry: Shape</p> <p>Understand and use degrees</p> <p>Classify angles</p> <p>Estimate angles</p> <p>Measure angles up to 180°</p> <p>Draw lines and angles accurately</p> <p>Calculate angles around a point</p> <p>Calculate angles on a straight line</p> <p>Lengths and angles in shapes</p> <p>Regular and irregular polygons</p> <p>3-D shapes</p> <p>Y5 SUMMER BLOCK 2 Geometry: Position and direction</p> <p>Read and plot coordinates</p> <p>Problem solving with coordinates</p> <p>Translation</p> <p>Translation with coordinates</p> <p>Lines of symmetry</p> <p>Reflection in horizontal and vertical lines</p> <p>Y5 SUMMER BLOCK 3 Number: Decimals</p> <p>Use known facts to add and subtract decimals within 1</p> <p>Complements to 1</p> <p>Add and subtract decimals across 1</p> <p>Add decimals with the same number of decimal places</p> <p>Subtract decimals with the same number of decimal places</p> <p>Add decimals with different numbers of decimal places</p> <p>Subtract decimals with different numbers of decimal places</p> <p>Efficient strategies for adding and subtracting decimals</p> <p>Decimal sequences</p> <p>Multiply by 10, 100 and 1000</p> <p>Divide by 10, 100 and 1000</p> <p>Multiply and divide decimals – missing values</p> <p>Y5 SUMMER BLOCK 4 Number: Negative Numbers</p> <p>Understand negative numbers</p> <p>Count through zero in 1s</p> <p>Count through zero in multiples</p> <p>Compare and order negative numbers</p> <p>Find the difference</p> <p>Y5 SUMMER BLOCK 5 Measurement: Converting</p>

units

Kilograms and kilometres

Millimetres and millilitres

Convert units of length

Convert between metric and imperial units

Convert units of time

Calculate with timetables

Y5 SUMMER BLOCK 6 Measurement: Volume

Cubic centimetres

Compare volume

Estimate volume

Estimate capacity

Year 6

Autumn

Y6 AUTUMN BLOCK 1 Number: Place Value

Numbers to 1 000 000

Numbers to 10 000 000

Read and write numbers to 10 000 000

Powers of 10

Number line to 10 000 000

Compare and order any integers

Round any integers

Negative numbers

Y6 AUTUMN BLOCK 2 Number: Addition, Subtraction, Multiplication and Division

Add and subtract integers

Common factors

Common multiples

Rules of divisibility

Primes to 100

Square and cube numbers

Multiply up to a 4-digit number by a 2-digit 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

Y6 AUTUMN BLOCK 3 Number: Fractions A

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

Y6 AUTUMN BLOCK 4 Number: Fractions B

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

Y6 AUTUMN BLOCK 5 Measurement: Converting Units

Metric measures

Convert metric measures

Calculate with metric measures

Miles and kilometres

Imperial measures

Spring

Y6 SPRING BLOCK 1 Number: Ratio

Add or multiply?

Use ratio language

Introduction to the ratio symbol

Ratio and fractions

Scale drawing

Use scale factors

Similar shapes

Ratio problems

Proportion problems

Recipes

Y6 SPRING BLOCK 2 Number: Algebra

1-step function machines

2-step function machines

Form expressions

Substitution
Formulae
Form equations
Solve 1-step equations
Solve 2-step equations
Find pairs of values
Solve problems with two unknowns

Y6 SPRING BLOCK 3 Number: Decimals

Place value within 1
Place value – integers and decimals
Round decimals
Add and subtract decimals
Multiply by 10, 100 and 1000
Divide by 10, 100 and 1000
Multiply decimals by integers
Divide decimals by integers
Multiply and divide decimals in context

Y6 SPRING BLOCK 4 Number: Fractions, Decimals and Percentages

Decimal and fraction equivalents
Fractions as division
Understand percentages
Fractions to percentages
Equivalent fractions, decimals and percentages
Order fractions, decimals and percentages
Percentage of an amount – one step
Percentage of an amount – multi-step
Percentages – missing values

Y6 SPRING BLOCK 5 Measurement: Area, Perimeter and Volume

Shapes – same area
Area and perimeter
Area of a triangle – counting squares
Area of a right-angled triangle
Area of any triangle
Area of a parallelogram
Volume – counting cubes
Volume of a cuboid

Y6 SPRING BLOCK 6 Statistics

Line graphs
Dual bar charts

	<p>Read and interpret pie charts</p> <p>Pie charts with percentages</p> <p>Draw pie charts</p> <p>The mean</p>
Summer	<p>Y6 SUMMER BLOCK 1 Geometry: Shape</p> <p>Measure and classify angles</p> <p>Calculate angles</p> <p>Vertically opposite angles</p> <p>Angles in a triangle</p> <p>Angles in a triangle – special cases</p> <p>Angles in a triangle – missing angles</p> <p>Angles in quadrilaterals</p> <p>Angles in polygons</p> <p>Circles</p> <p>Draw shapes accurately</p> <p>Nets of 3-D shapes</p> <p>Y6 SUMMER BLOCK 2 Geometry: Position and direction</p> <p>The first quadrant</p> <p>Read and plot points in four quadrants</p> <p>Solve problems with coordinates</p> <p>Translations</p> <p>Reflections</p> <p>Followed by consolidation and themed projects</p>