



Kingsway Primary School – Inspired to Make a Difference Together

KNOWLEDGE AND SKILLS PROGRESSION IN MATHS

Year Group	Knowledge	Skills
Nursery	Developing an awareness of number, comparing quantities, recognising numerals up to 10, using positional language.	Counting objects, actions, and sounds; subitising small groups; matching and sorting objects; using mathematical mark-making.
Reception	Recognising and using numbers up to 10, understanding composition of numbers, comparing mass, capacity, and length.	Exploring early addition and subtraction; developing fluency with number bonds to 10; doubling, halving, and sharing.
Year 1	Understanding place value within 100, recognising 2D and 3D shapes, understanding basic fractions, telling time to the hour and half hour.	Counting forwards and backwards; adding and subtracting within 20; beginning multiplication and division; measuring length, height, mass, and volume.
Year 2	Place value within 100, recognising coins and notes, understanding fractions ($\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$), telling time to five minutes.	Adding and subtracting two-digit numbers; recalling 2, 5, and 10 times tables; measuring mass, capacity, and temperature; drawing and interpreting simple graphs.
Year 3	Place value within 1000, fractions as numbers, time to the nearest minute, properties of shapes.	Adding and subtracting three-digit numbers; multiplying and dividing within 12×12 ; measuring and comparing length, mass, and capacity; interpreting bar charts and pictograms.

Year 4	Understanding place value to 10,000, recognising equivalent fractions, understanding area and perimeter, recognising angles.	Adding and subtracting four-digit numbers; multiplying and dividing by 10 and 100; solving fraction and decimal problems; reading and plotting coordinates.
Year 5	Understanding place value to 1,000,000, percentages as fractions and decimals, measuring and converting units, identifying properties of 3D shapes.	Adding and subtracting with larger numbers; multiplying and dividing by multiples of 10, 100, and 1000; solving problems involving fractions, decimals, and percentages; drawing and interpreting line graphs.
Year 6	Understanding place value to 10,000,000, ratio and proportion, algebraic expressions, interpreting pie charts and line graphs.	Solving multi-step problems involving all operations; working with algebraic equations; calculating angles in shapes; converting between metric and imperial units.

Small Steps Summary

Nursery		
Autumn	Spring	Summer
<p>Comparison 1 – More than, fewer than, same</p> <p>Collect objects to compare amounts</p> <p>Make simple comparisons of amounts</p> <p>Look for collections of large and small amounts</p> <p>Compare and talk about large and small amounts</p>	<p>Counting 1 – Hear and say number names</p> <p>Hear some number names</p> <p>Join in saying some number names</p> <p>Model saying number names in order</p> <p>Practise saying number names in order</p> <p>Join in stable order counting forwards</p>	<p>Pattern 2 – Join in with repeats</p> <p>Join in with repeated actions in songs</p> <p>Join in with repeats in songs and stories</p> <p>Sing some refrains independently</p> <p>Have a sense of daily routines</p> <p>Say what happens next</p> <p>Make arrangements in art</p>

<p>Make large and small collections</p> <p>Make collections the same</p> <p>Shape, space and measure 1 – Explore and build with shapes and objects</p> <p>Explore and play with shapes</p> <p>Show interest in simple differences between shapes</p> <p>Put shapes and blocks into position</p> <p>Select shapes for a reason</p> <p>Begin to explore and describe natural shapes and objects</p> <p>Find and collect objects for a purpose</p> <p>Pattern 1 – Explore repeats</p> <p>Listen to repeats in songs and stories</p> <p>Start to join in songs with repeats</p> <p>Start to join in with repeats from stories</p>	<p>Join in stable order counting backwards</p> <p>Counting 2 – Begin to order number names</p> <p>Model saying 1, 2 and 3 in play</p> <p>Copy the sequence of 1, 2 and 3</p> <p>Copy fingers to represent 1, 2 and 3</p> <p>Begin to count actions</p> <p>Say number names in order</p> <p>Begin to recognise that anything can be counted.</p> <p>Subitising 1 – I see 1, 2, 3</p> <p>Notice images in books</p> <p>Respond to “I see 1, 2, 3”</p> <p>Recognise “I see 1, 2, 3”</p> <p>Copy “I see 1, 2, 3”</p> <p>Point to 1, 2, 3</p>	<p>Shape, space and measure 2 – Explore position and space</p> <p>Respond to simple language of position</p> <p>Arrange blocks in a chosen position</p> <p>Select shapes for a space</p> <p>Recognise when 2 objects are the same shape</p> <p>Explore and describe shapes and objects</p> <p>Sort shapes and objects into simple categories.</p>
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Clap along to songs	Recognise 1,2,3 in well known tales.	
Make line patterns with own sequences		
Choose blocks to build roads and towers		

Reception		
Autumn	Spring	Summer
<p>Match, sort and compare</p> <p>Step 1 Match objects</p> <p>Step 2 Match pictures and objects</p> <p>Step 3 Identify a set</p> <p>Step 4 Sort objects to a type</p> <p>Step 5 Explore sorting techniques</p> <p>Step 6 Create sorting rules</p> <p>Step 7 Compare amounts</p> <p>Talk about measure and pattern</p> <p>Step 1 Compare size</p> <p>Step 2 Compare mass</p>	<p>Alive in 5</p> <p>Step 1 Introduce zero</p> <p>Step 2 Find 0 to 5</p> <p>Step 3 Subitise 0 to 5</p> <p>Step 4 Represent 0 to 5</p> <p>Step 5 1 more</p> <p>Step 6 1 less</p> <p>Step 7 Composition</p> <p>Step 8 Conceptual subitising to 5</p> <p>Mass and capacity</p> <p>Step 1 Compare mass</p>	<p>To 20 and beyond</p> <p>Step 1 Build numbers beyond 10 (10–13)</p> <p>Step 2 Continue patterns beyond 10 (10–13)</p> <p>Step 3 Build numbers beyond 10 (14–20)</p> <p>Step 4 Continue patterns beyond 10 (14–20)</p> <p>Step 5 Verbal counting beyond 20</p> <p>Step 6 Verbal counting patterns</p> <p>How many now?</p> <p>Step 1 Add more</p> <p>Step 2 How many did I add?</p> <p>Step 3 Take away</p>

- Step 3 Compare capacity
- Step 4 Explore simple patterns
- Step 5 Copy and continue simple patterns
- Step 6 Create simple patterns

It's me 1, 2, 3

- Step 1 Find 1, 2 and 3
- Step 2 Subitise 1, 2 and 3
- Step 3 Represent 1, 2 and 3
- Step 4 1 more
- Step 5 1 less
- Step 6 Composition of 1, 2 and 3

Circles and triangles

- Step 1 Identify and name circles and triangles
- Step 2 Compare circles and triangles
- Step 3 Shapes in the environment
- Step 4 Describe position

1, 2, 3, 4, 5

Find 4 and 5

- Step 2 Find a balance
- Step 3 Explore capacity
- Step 4 Compare capacity

Growing 6, 7, 8

- Step 1 Find 6, 7 and 8
- Step 2 Represent 6, 7 and 8
- Step 3 1 more
- Step 4 1 less
- Step 5 Composition of 6, 7 and 8
- Step 6 Make pairs – odd and even
- Step 7 Double to 8 (find a double)
- Step 8 Double to 8 (make a double)
- Step 9 Combine two groups
- Step 10 Conceptual subitising

Length, height and time

- Explore length
- Compare length
- Explore height
- Compare height

Step 4 How many did I take away?

Manipulate, compose and decompose

- Step 1 Select shapes for a purpose
- Step 2 Rotate shapes
- Step 3 Manipulate shapes
- Step 4 Explain shape arrangements
- Step 5 Compose shapes
- Step 6 Decompose shapes
- Step 7 Copy 2-D shape pictures
- Step 8 Find 2-D shapes within 3-D shapes

Sharing and grouping

- Step 1 Explore sharing
- Step 2 Sharing
- Step 3 Explore grouping
- Step 4 Grouping
- Step 5 Even and odd sharing
- Step 6 Play with and build doubles

<p>Subitise 4 and 5</p> <p>Represent 4 and 5</p> <p>1 more</p> <p>1 less</p> <p>Composition of 4 and 5</p> <p>Composition of 1–5</p> <p>Block 6 – Shapes with 4 sides</p> <p>Identify and name shapes with 4 sides</p> <p>Combine shapes with 4 sides</p> <p>Shapes in the environment</p> <p>My day and night</p>	<p>Talk about time</p> <p>Order and sequence time</p> <p>Building 9 and 10</p> <p>Find 9 and 10</p> <p>Compare numbers to 10</p> <p>Represent 9 and 10</p> <p>Conceptual subitising to 10</p> <p>1 more</p> <p>1 less</p> <p>Composition to 10</p> <p>Bonds to 10 (2 parts)</p> <p>Make arrangements of 10</p> <p>Bonds to 10 (3 parts)</p> <p>Doubles to 10 (find a double)</p> <p>Doubles to 10 (make a double)</p> <p>Explore even and odd</p>	<p>Visualise, build and map</p> <p>Step 1 Identify units of repeating patterns</p> <p>Step 2 Create own pattern rules</p> <p>Step 3 Explore own pattern rules</p> <p>Step 4 Replicate and build scenes and constructions</p> <p>Step 5 Visualise from different positions</p> <p>Step 6 Describe positions</p> <p>Step 7 Give instructions to build</p> <p>Step 8 Explore mapping</p> <p>Step 9 Represent maps with models</p> <p>Step 10 Create own maps from familiar places</p> <p>Step 11 Create own maps and plans from story situations</p> <p>Make connections</p> <p>Step 1 Deepen understanding</p> <p>Step 2 Patterns and relationships</p>
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	<p>Explore 3-D shape</p> <p>Recognise and name 3-D shapes</p> <p>Find 2-D shapes within 3-D shapes</p> <p>Use 3-D shapes for tasks</p> <p>3-D shapes in the environment</p> <p>Identify more complex patterns</p> <p>Copy and continue patterns</p> <p>Patterns in the environment</p>	
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Year 1		
Autumn	Spring	Summer
<p>Place value</p> <p>Step 1 Sort objects</p> <p>Step 2 Count objects</p> <p>Step 3 Count objects from a larger group</p> <p>Step 4 Represent objects</p>	<p>Place value (within 20)</p> <p>Step 1 Count within 20</p> <p>Step 2 Understand 10</p> <p>Step 3 Understand 11, 12 and 13</p> <p>Step 4 Understand 14, 15 and 16</p>	<p>Multiplication and division</p> <p>Count in 2s</p> <p>Count in 10s</p> <p>Count in 5s</p> <p>Recognise equal groups</p>

Step 5 Recognise numbers as words

Step 6 Count on from any number

Step 7 1 more

Step 8 Count backwards within 10

Step 9 1 less

Step 10 Compare groups by matching

Step 11 Fewer, more, same

Step 12 Less than, greater than, equal to

Step 13 Compare numbers

Step 14 Order objects and numbers

Step 15 The number line

Addition and subtraction

Step 1 Introduce parts and wholes

Step 2 Part-whole model

Step 3 Write number sentences

Step 4 Fact families – addition facts

Step 5 Number bonds within 10

Step 6 Systematic number bonds within 10

Step 7 Number bonds to 10

Step 5 Understand 17, 18 and 19

Step 6 Understand 20

Step 7 1 more and 1 less

Step 8 The number line to 20

Step 9 Use a number line to 20

Step 10 Estimate on a number line to 20

Step 11 Compare numbers to 20

Step 12 Order numbers to 20

Addition and subtraction (within 20)

Step 1 Add by counting on within 20

Step 2 Add ones using number bonds

Step 3 Find and make number bonds to 20

Step 4 Doubles

Step 5 Near doubles

Step 6 Subtract ones using number bonds

Step 7 Subtraction – counting back

Step 8 Subtraction – finding the difference

Step 9 Related facts

Step 10 Missing number problems

Add equal groups

Make arrays

Make doubles

Make equal groups – grouping

Make equal groups – sharing

Fractions

Recognise a half of an object or a shape

Find a half of an object or a shape

Recognise a half of a quantity

Find a half of a quantity

Recognise a quarter of an object or a shape

Find a quarter of an object or a shape

Recognise a quarter of a quantity

Find a quarter of a quantity

Position and direction

Describe turns

Describe position – left and right

Describe position – forwards and backwards

Describe position – above and below

Step 8 Addition – add together

Step 9 Addition – add more

Step 10 Addition problems

Step 11 Find a part

Step 12 Subtraction – find a part

Step 13 Fact families – the eight facts

Step 14 Subtraction – take away/cross out (How many left?)

Step 15 Subtraction – take away (How many left?)

Step 16 Subtraction on a number line

Step 17 Add or subtract 1 or 2

Shape

Step 1 Recognise and name 3-D shapes

Step 2 Sort 3-D shapes

Step 3 Recognise and name 2-D shapes

Step 4 Sort 2-D shapes

Step 5 Patterns with 2-D and 3-D shapes

Place value (within 50)

Step 1 Count from 20 to 50

Step 2 20, 30, 40 and 50

Step 3 Count by making groups of tens

Step 4 Groups of tens and ones

Step 5 Partition into tens and ones

Step 6 The number line to 50

Step 7 Estimate on a number line to 50

Step 8 1 more, 1 less

Length and height

Step 1 Compare lengths and heights

Step 2 Measure length using objects

Step 3 Measure length in centimetres

Mass and volume

Step 1 Heavier and lighter

Step 2 Measure mass

Step 3 Compare mass

Step 4 Full and empty

Ordinal numbers

Place value (within 100)

Count from 50 to 100

Tens to 100

Partition into tens and ones

The number line to 100

1 more, 1 less

Compare numbers with the same number of tens

Compare any two numbers

Money

Unitising

Recognise coins

Recognise notes

Count in coins

Time

Before and after

Days of the week

Months of the year

	Step 5 Compare volume Step 6 Measure capacity Step 7 Compare capacity	Hours, minutes and seconds Tell the time to the hour Tell the time to the half hour
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Year 2		
Autumn	Spring	Summer
Place value Numbers to 20 Count objects to 100 by making 10s Recognise tens and ones Use a place value chart Partition numbers to 100 Write numbers to 100 in words Flexibly partition numbers to 100 Write numbers to 100 in expanded form	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	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

10s on the number line to 100

10s and 1s on the number line to 100

Estimate numbers on a number line

Compare objects

Compare numbers

Order objects and numbers

Count in 2s, 5s and 10s

Count in 3s

Addition and subtraction

Bonds to 10

Fact families - addition and subtraction bonds within 20

Related facts

Bonds to 100 (tens)

Add and subtract 1s

Add by making 10

Add three 1-digit numbers

Add to the next 10

Add across a 10

Subtract across 10

Find Change

Two-step problems

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

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

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

Statistics

Make tally charts

Tables

Block diagrams

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 numbers (across a 10)

Subtract two 2-digit numbers (not across a 10)

Subtract two 2-digit numbers (across a 10)

Mixed addition and subtraction

Compare number sentences

Missing number problems

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

Length and height

Measure in centimetres

Measure in metres

Compare lengths and heights

Order lengths and heights

Four operations with lengths and heights

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

Draw pictograms (1–1)

Interpret pictograms (1–1)

Draw pictograms (2, 5 and 10)

Interpret pictograms (2, 5 and 10)

Position and direction

Language of position

Describe movement

Describe turns

Describe movement and turns

Shape patterns with turns

<p>Count faces on 3-D shapes</p> <p>Count edges on 3-D shapes</p> <p>Count vertices on 3-D shapes</p> <p>Sort 3-D shapes</p> <p>Make patterns with 2-D and 3-D shapes</p>		
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Year 3		
Autumn	Spring	Summer
<p>Place value</p> <p>Represent numbers to 100</p> <p>Partition numbers to 100</p> <p>Number line to 100</p> <p>Hundreds</p>	<p>Multiplication and division B</p> <p>Multiples of 10</p> <p>Related calculations</p> <p>Reasoning about multiplication</p>	<p>Fractions B</p> <p>Add fractions</p> <p>Subtract fractions</p> <p>Partition the whole</p> <p>Unit fractions of a set of objects</p>

Represent numbers to 1,000

Partition numbers to 1,000

Flexible partitioning of numbers to 1,000

Hundreds, tens and ones

Find 1, 10 or 100 more or less

Number line to 1,000

Estimate on a number line to 1,000

Compare numbers to 1,000

Order numbers to 1,000

Count in 50s

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

Multiply a 2-digit number by a 1-digit number – no exchange

Multiply a 2-digit number by a 1-digit number – with exchange

Link multiplication and division

Divide a 2-digit number by a 1-digit number – no exchange

Divide a 2-digit number by a 1-digit number – flexible partitioning

Divide a 2-digit number by a 1-digit number – with remainders

Scaling

How many ways?

Length and perimeter

Measure in metres and centimetres

Measure in millimetres

Measure in centimetres and millimetres

Metres, centimetres and millimetres

Equivalent lengths (metres and centimetres)

Equivalent lengths (centimetres and millimetres)

Compare lengths

Add lengths

Non-unit fractions of a set of objects

Reasoning with fractions of an amount

Pounds and pence

Money

Convert pounds and pence

Add money

Subtract money

Find change

Time

Roman numerals to 12

Tell the time to 5 minutes

Tell the time to the minute

Read time on a digital clock

Use am and pm

Years, months and days

Days and hours

Hours and minutes – use start and end times

Hours and minutes - use durations

Minutes and seconds

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

Multiplication and division A

Multiplication – equal groups

Subtract lengths

What is perimeter?

Measure perimeter

Calculate perimeter

Fractions A

Understand the denominators of unit fractions

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

Mass and capacity

Use scales

Measure mass in grams

Measure mass in kilograms and grams

Units of time

Solve problems with time

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

Statistics

Interpret pictograms

Draw pictograms

Interpret bar charts

Draw bar charts

Collect and represent data

<p>Use arrays</p> <p>Multiples of 2</p> <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>	<p>Equivalent masses (kilograms and grams)</p> <p>Compare mass</p> <p>Add and subtract mass</p> <p>Measure capacity and volume in millilitres</p> <p>Measure capacity and volume in litres and millilitres</p> <p>Equivalent capacities and volumes (litres and millilitres)</p> <p>Compare capacity and volume</p> <p>Add and subtract capacity and volume</p>	<p>Two-way tables</p>
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Year 4		
Autumn	Spring	Summer
<p>Place value</p> <p>Represent numbers to 1,000</p> <p>Partition numbers to 1,000</p> <p>Number line to 1,000</p> <p>Thousands</p> <p>Represent numbers to 10,000</p> <p>Partition numbers to 10,000</p> <p>Flexible partitioning of numbers to 10,000</p> <p>Find 1, 10, 100, 1,000 more or less</p> <p>Number line to 10,000</p> <p>Estimate on a number line to 10,000</p> <p>Compare numbers to 10,000</p> <p>Order numbers to 10,000</p>	<p>Multiplication and division B</p> <p>Factor pairs</p> <p>Use factor pairs</p> <p>Multiply by 10</p> <p>Multiply by 100</p> <p>Divide by 10</p> <p>Divide by 100</p> <p>Related facts – multiplication and division</p> <p>Informal written methods for multiplication</p> <p>Multiply a 2-digit number by a 1-digit number</p> <p>Multiply a 3-digit number by a 1-digit number</p> <p>Divide a 2-digit number by a 1-digit number (1)</p> <p>Divide a 2-digit number by a 1-digit number (2)</p>	<p>Decimals B</p> <p>Make a whole with tenths</p> <p>Make a whole with hundredths</p> <p>Partition decimals</p> <p>Flexibly partition decimals</p> <p>Compare decimals</p> <p>Order decimals</p> <p>Round to the nearest whole number</p> <p>Halves and quarters as decimals</p> <p>Money</p> <p>Write money using decimals</p> <p>Convert between pounds and pence</p>

Roman numerals

Round to the nearest 10

Round to the nearest 100

Round to the nearest 1,000

Round to the nearest 10, 100 or 1,000

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

Area

What is area?

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

Correspondence problems

Efficient multiplication

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

Fractions

Understand the whole

Count beyond 1

Partition a mixed number

Number lines with mixed numbers

Compare amounts of money

Estimate with money

Calculate with money

Solve problems with money

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

Shape

Understand angles as turns

Identify angles

Compare and order angles

Triangles

Quadrilaterals

Polygons

Lines of symmetry

Complete a symmetric figure

Count squares

Make shapes

Compare areas

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 a number by 1 and itself

Multiply three 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

Decimals A

Tenths as fractions

Tenths as decimals

Tenths on a place value chart

Tenths on a number line

Statistics

Interpret charts

Comparison, sum and difference

Interpret line graphs

Draw line graphs

Describe position using coordinates

Plot coordinates

Draw 2-D shapes on a grid

Translate on a grid

Describe translation on a grid

	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	
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Year 5		
Autumn	Spring	Summer
Place value Roman numerals to 1,000 Numbers to 10,000 Numbers to 100,000 Numbers to 1,000,000 Read and write numbers to 1,000,000 Powers of 10	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	Shape Understand and use degrees Classify angles Estimate angles Measure angles up to 180° Draw lines and angles accurately Calculate angles around a point

10/100/1,000/10,000/100,000 more or less

Partition numbers to 1,000,000

Number line to 1,000,000

Compare and order numbers to 100,000

Compare and order numbers to 1,000,000

Round to the nearest 10, 100 or 1,000

Round within 100,000

Round within 1,000,000

Addition and subtraction

Mental strategies

Add whole numbers with more than four digits

Subtract whole numbers with more than four digits

Round to check answers

Inverse operations (addition and subtraction)

Multi-step addition and subtraction problems

Compare calculations

Find missing numbers

Multiplication and division A

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

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

Decimals and percentages

Decimals up to 2 decimal places

Equivalent fractions and decimals (tenths)

Equivalent fractions and decimals (hundredths)

Calculate angles on a straight line

Lengths and angles in shapes

Regular and irregular polygons

3-D shapes

Position and direction

Read and plot coordinates

Problem solving with coordinates

Translation

Translation with coordinates

Lines of symmetry

Reflection in horizontal and vertical lines

Decimals

Use known facts to add and subtract decimals within 1

Complements to 1

Add and subtract decimals across 1

Add decimals with the same number of decimal places

Subtract decimals with the same number of decimal places

<p>Multiples</p> <p>Common multiples</p> <p>Factors</p> <p>Common factors</p> <p>Prime numbers</p> <p>Square numbers</p> <p>Cube numbers</p> <p>Multiply by 10, 100 and 1,000</p> <p>Divide by 10, 100 and 1,000</p> <p>Multiples of 10, 100 and 1,000</p> <p>Fractions A</p> <p>Find fractions equivalent to a unit fraction</p> <p>Find fractions equivalent to a non-unit fraction</p> <p>Recognise equivalent fractions</p> <p>Convert improper fractions to mixed numbers</p> <p>Convert mixed numbers to improper fractions</p> <p>Compare fractions less than 1</p> <p>Order fractions less than 1</p> <p>Compare and order fractions greater than 1</p>	<p>Equivalent fractions and decimals</p> <p>Thousandths as fractions</p> <p>Thousandths as decimals</p> <p>Thousandths on a place value chart</p> <p>Order and compare decimals (same number of decimal places)</p> <p>Order and compare any decimals with up to 3 decimal places</p> <p>Round to the nearest whole number</p> <p>Round to 1 decimal place</p> <p>Understand percentages</p> <p>Percentages as fractions</p> <p>Percentages as decimals</p> <p>Equivalent fractions, decimals and percentages</p> <p>Perimeter and area</p> <p>Perimeter of rectangles</p> <p>Perimeter of rectilinear shapes</p> <p>Perimeter of polygons</p> <p>Area of rectangles</p> <p>Area of compound shapes</p> <p>Estimate area</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 1,000</p> <p>Divide by 10, 100 and 1,000</p> <p>Multiply and divide decimals – missing values</p> <p>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>Converting units</p> <p>Kilograms and kilometres</p> <p>Millimetres and millilitres</p> <p>Convert units of length</p> <p>Convert between metric and imperial units</p>
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<p>Add and subtract fractions with the same denominator</p> <p>Add fractions within 1</p> <p>Add fractions with total greater than 1</p> <p>Add to a mixed number</p> <p>Add two mixed numbers</p> <p>Subtract fractions</p> <p>Subtract from a mixed number</p> <p>Subtract from a mixed number – breaking the whole</p> <p>Subtract two mixed numbers</p>	<p>Statistics</p> <p>Draw line graphs</p> <p>Read and interpret line graphs</p> <p>Read and interpret tables</p> <p>Two-way tables</p> <p>Read and interpret timetables</p>	<p>Convert units of time</p> <p>Calculate with timetables</p> <p>Volume</p> <p>Cubic centimetres</p> <p>Compare volume</p> <p>Estimate volume</p> <p>Estimate capacity</p>
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Year 6		
Autumn	Spring	Summer
Place value	Ratio	Shape

<p>Numbers to 1,000,000</p> <p>Numbers to 10,000,000</p> <p>Read and write numbers to 10,000,000</p> <p>Powers of 10</p> <p>Number line to 10,000,000</p> <p>Compare and order any integers</p> <p>Round any integer</p> <p>Negative numbers</p> <p>Addition, subtraction, multiplication and division</p> <p>Add and subtract integers</p> <p>Common factors</p> <p>Common multiples</p> <p>Rules of divisibility</p> <p>Primes to 100</p> <p>Square and cube numbers</p> <p>Multiply up to a 4-digit number by a 2-digit number</p> <p>Solve problems with multiplication</p> <p>Short division</p> <p>Division using factors</p>	<p>Add or multiply?</p> <p>Use ratio language</p> <p>Introduction to the ratio symbol</p> <p>Ratio and fractions</p> <p>Scale drawing</p> <p>Use scale factors</p> <p>Similar shapes</p> <p>Ratio problems</p> <p>Proportion problems</p> <p>Recipes</p> <p>Algebra</p> <p>1-step function machines</p> <p>2-step function machines</p> <p>Form expressions</p> <p>Substitution</p> <p>Formulae</p> <p>Form equations</p> <p>Solve 1-step equations</p> <p>Solve 2-step equations</p> <p>Find pairs of values</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 a quadrilateral</p> <p>Angles in polygons</p> <p>Circles</p> <p>Draw shapes accurately</p> <p>Step 11 Nets of 3-D shapes</p> <p>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>
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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 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

Fractions B

Multiply fractions by integers

Step 10

Solve problems with two unknowns

Decimals

Place value within 1

Place value – integers and decimals

Round decimals

Add and subtract decimals

Multiply by 10, 100 and 1,000

Divide by 10, 100 and 1,000

Multiply decimals by integers

Divide decimals by integers

Multiply and divide decimals in context

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

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

Percentage of an amount – one step

Percentage of an amount – multi-step

Percentages – missing values

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

Statistics

Line graphs

Dual bar charts

Read and interpret pie charts

Pie charts with percentages

Draw pie charts

The mean

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