



## Key ideas from Statutory and Non-Statutory guidance from the Maths Curriculum 2014



### Year 1

- count, read and write numerals to 100
- 1 more or less than a given number to 100
- begin to know place value in numbers beyond 20

- number bonds within 20
- add and subtract one-digit and two-digit numbers to 20
- adding and subtracting zero
- use the terms: put together, add, altogether, total, take away, distance between, difference between, more than and less than to develop the concept of addition and subtraction

- counting in twos, fives and tens
- multiplication and division problems using concrete objects and arrays (grouping and sharing)
- finding halves and quarters of objects, numbers and quantities

- move from measuring using non-standard units to common standard units
- recognise and know value of coins and notes
- tell the time to the hour and half past the hour

- recognise and name common 2-D and 3-D shapes, e.g. rectangles (including squares), circles and triangles, cuboids (including cubes), pyramids and spheres
- describe position, directions and movements - *make whole, half, quarter and three-quarter turns*

- solve number problems and practical problems involving these ideas**

### Year 2

- count in 2s, 3s and 5s from 0 and 10s from any number
- read, write, compare and order numbers to at least 100
- know the place value of each digit in two-digit numbers

- recall and use facts to 20 and derive related facts to 100
- using concrete objects, pictorial representations and mentally, add and subtract ones, tens and two-digit numbers to and from two-digit numbers
- adding several single digits
- tables and division facts for x2, x5 and x10
- use commutativity of addition and multiplication
- check answers to calculations using inverse relationships
- recognise, find, name and write fractions  $\frac{1}{2}$ ,  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{2}{4}$ ,  $\frac{3}{4}$

- recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value; add and subtract money of the same unit, including giving change
- tell the time to the 5 minute

- identify, compare and sort 2-D and 3-D shapes based on their properties (including symmetry in a vertical line) and use vocabulary, such as sides, edges, vertices and faces
- identify 2-D shapes on the surface of 3-D shapes
- right angle turns clockwise and anti-clockwise

- interpret and construct simple pictograms, tally charts, block diagrams and simple tables

- solve number problems and practical problems involving these ideas**

### Year 3

- count in 4s, 8s, 50s, 100s and tenths from zero
- read, write, compare and order numbers to at least 1000
- know the place value of each digit in three-digit numbers
- find 10 or 100 more or less than a given number

- add and subtract ones, tens and hundreds to or from three-digit numbers mentally, two two-digit numbers where the answers could exceed 100
- add and subtract three-digit numbers using formal written columnar methods
- tables and division facts for x3, x4 and x8
- add and subtract fractions with the same denominator
- develop formal written multiplication and division methods for two-digit by one-digit numbers
- begin to understand unit and non-unit fractions as numbers on the number line, and deduce relations between them, such as size and equivalence

- measure the perimeter of simple shapes
- tell the time to the nearest minute using analogue clocks
- add and subtract amounts of money to give change, using both £ and p in practical contexts

- draw 2-D and make 3-D shapes
- recognise and describe 3-D shapes in different orientations
- recognise that angles are a property of shape or a description of a turn, using right angles as a marker
- horizontal and vertical lines and pairs of perpendicular and parallel lines

- understand and use simple scales (e.g. 2,5,10 units per cm) in pictograms and bar charts

- solve number problems and practical problems involving these ideas**



## Year 4

- count in 6s, 7s, 9s, 25s, 1000s and hundredths; count backwards through zero to include negative numbers
- read, write, compare, order and know place value of numbers to at least 10000 and numbers with the same number of decimal places up to two decimal place
- round any number to the nearest 10, 100 or 1000 and decimals with 1 decimal place to the nearest whole number
- add and subtract up to four-digit numbers mentally and using formal written columnar methods
- tables and division facts 12 x 12, including 0 and 1
- multiply three numbers
- multiply two and three-digit numbers by a one-digit number using formal written layout
- dividing a one or two-digit number by 10 and 100, identifying value of digits
- add and subtract fractions with the same denominator

- measure and calculate perimeter of rectilinear shapes in metres and centimetres
- find the area of rectilinear shapes by counting squares
- read, write and convert time between analogue and digital 12 and 24-hour clocks
- conversion between units of measure

- sorting and classifying quadrilateral and triangles
- identify lines of symmetry in 2-D shapes presented in different orientations
- identify acute and obtuse angles and compare and order angles up to two right angles by size
- description positions and translations (movement) within the first quadrant

**solve number problems and practical problems involving these ideas**



## Year 5

- read, write, order and compare numbers to at least 1 million and numbers with up to three decimal places, determine the value of each digit
- interpret negative numbers in context, counting forwards and backwards
- round any number up to a million to a power of 10 and decimals with two decimal places to the nearest whole or tenth
- add and subtract whole numbers with more than four-digits, including using formal written methods
- identify prime numbers to 100 and recall those to 19, awareness of prime factors and non-prime numbers
- short multiplication and division of four-digit by a one-digit and long multiplication of four-digit by two-digit number
- multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
- compare, order, add and subtract fractions whose denominators are all multiples of the same number
- understand that per cent relates to "number of parts per 100", and write percentages as a fraction with denominator 100, and as a decimal
- multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams

- convert different units of metric measures;
- understand and use equivalences between metric and imperial units
- calculate the perimeter of composite rectilinear and the area of rectangles using standard units

- given angles and measure them in degrees ( $^{\circ}$ ) including acute, obtuse and reflex angles
- distinguish between regular and irregular polygons based on reasoning about equal sides and angles

**solve number problems and practical problems involving these ideas**



## Year 6

- read, write, order and compare numbers up to 10 million and determine the value of each digit
- short and long multiplication and division using numbers up to four digits; multiply one-digit numbers with up to two decimal places by whole numbers
- mental calculations, including with mixed operations and large numbers
- multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places
- add and subtract fractions with different denominators and mixed numbers
- multiply simple pairs of proper fractions and divide proper fractions by whole numbers
- recall and use equivalences between simple fractions, decimals and percentages
- solve problems involving ratio and proportion
- use algebra in terms of formula, sequences, variables and unknowns

- recognise and use the formula for volume and area including parallelograms and triangles

- illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
- recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles
- draw and translate simple shapes on the coordinate plane, and reflect them in the axes

- construct pie charts
- calculate and interpret the mean as an average

**solve number problems and practical problems involving these ideas**

# Fluency Reasoning Problem Solving

	Year 1			Year 2		
	Autumn	Spring	Summer	Autumn	Spring	Summer
<b>Number</b>	<ul style="list-style-type: none"> <li>Count forwards and backwards</li> <li>Count in tens from zero</li> <li>Compare and order</li> <li>Read and write numerals</li> <li>More and less than a given number</li> <li>Count objects reliably</li> </ul>	<ul style="list-style-type: none"> <li>Count forwards and backwards</li> <li>Count in twos, fives and tens from zero</li> <li>Place value</li> <li>Compare and order</li> <li>More or less than a given number</li> <li>Sequences</li> </ul>	<ul style="list-style-type: none"> <li>Count forwards and backwards</li> <li>Count in twos, fives and tens from zero</li> <li>Place Value</li> <li>Read, write, represent numbers</li> <li>Properties of number</li> </ul>	<ul style="list-style-type: none"> <li>Count forwards and backwards</li> <li>Read and write numbers in numerals and words</li> <li>Compare and order, &lt; and &gt; signs</li> <li>Place value and partitioning of two-digit numbers</li> </ul>	<ul style="list-style-type: none"> <li>Count forwards and backwards</li> <li>Place value and partition in different ways</li> <li>Recognising and positioning multiples of 10</li> <li>Estimating</li> </ul>	<ul style="list-style-type: none"> <li>Count forwards and backwards</li> <li>Compare and order, &lt; and &gt; signs</li> <li>Sequences</li> <li>Properties of number</li> <li>Half-way between</li> </ul>
<b>Addition and Subtraction</b>	<ul style="list-style-type: none"> <li>Understand addition and subtraction</li> <li>Vocabulary</li> <li>Count on or back to calculate</li> <li>Number facts</li> </ul>	<ul style="list-style-type: none"> <li>Add by counting on</li> <li>Subtract by counting back</li> <li>Find the difference</li> <li>Number facts</li> </ul>	<ul style="list-style-type: none"> <li>Add and subtract involving teens</li> <li>Find the difference</li> <li>Number facts</li> <li>Add and subtract 10</li> <li>Pattern within calculation</li> </ul>	<ul style="list-style-type: none"> <li>Understand addition and subtraction</li> <li>Count on or back to calculate</li> <li>Add and subtract multiples of 10</li> <li>add and subtract single digits</li> </ul>	<ul style="list-style-type: none"> <li>How many to the next ten</li> <li>Calculate using known facts and place value</li> <li>Finding a difference</li> <li>Add three one digit numbers</li> </ul>	<ul style="list-style-type: none"> <li>Known facts to 20</li> <li>Rounding and adjusting</li> <li>Using inverse</li> <li>Add and subtract using a range of strategies</li> </ul>
<b>Multiplication and division</b>	<ul style="list-style-type: none"> <li>Count in twos and tens from zero</li> <li>Doubles</li> </ul>	<ul style="list-style-type: none"> <li>Count repeated groups</li> <li>Sharing</li> </ul>	<ul style="list-style-type: none"> <li>Repeated addition, arrays</li> <li>Grouping</li> <li>Doubles facts</li> </ul>	<ul style="list-style-type: none"> <li>Understanding multiplication</li> <li>Times tables</li> <li>Division as grouping</li> </ul>	<ul style="list-style-type: none"> <li>Times tables</li> <li>Inverse relationships</li> <li>Division as sharing</li> </ul>	<ul style="list-style-type: none"> <li>Times tables and related facts</li> <li>Doubles and halves</li> <li>Understanding remainders</li> </ul>
<b>Fractions</b>	<ul style="list-style-type: none"> <li>Halves</li> </ul>	<ul style="list-style-type: none"> <li>Halving quantities</li> <li>Doubling and halving</li> </ul>	<ul style="list-style-type: none"> <li>Halves and quarters</li> <li>Doubling and halving</li> </ul>	<ul style="list-style-type: none"> <li>Count in halves</li> <li>Understand fraction notation</li> <li>Equal parts</li> <li>Halves, quarters and thirds</li> </ul>	<ul style="list-style-type: none"> <li>Count in quarters</li> <li>Fractions of amounts</li> </ul>	<ul style="list-style-type: none"> <li>Count in thirds</li> <li>Equivalence and fraction families</li> <li>Fractions of amounts</li> </ul>
<b>Measures</b>	<ul style="list-style-type: none"> <li>Compare and order objects</li> <li>Measure and use non-standard units</li> <li>Record measures taken</li> </ul>	<ul style="list-style-type: none"> <li>Compare and order</li> <li>Measure and use non-standard units</li> <li>Measure and compare using standard units - Length</li> </ul>	<ul style="list-style-type: none"> <li>Measure and compare using standard units - Capacity / volume</li> <li>Measure and compare using standard units - Mass / weight</li> </ul>	<ul style="list-style-type: none"> <li>Compare and order</li> <li>Standard units</li> <li>Reading scales</li> <li>Recording measurements</li> </ul>	<ul style="list-style-type: none"> <li>Compare and order</li> <li>Standard units</li> <li>Reading scales</li> <li>Measure and estimate to the nearest cm and m</li> </ul>	<ul style="list-style-type: none"> <li>Compare and order temperatures</li> <li>Reading scales</li> <li>Measure and estimate – mass and capacity</li> <li>Simple scaling problems</li> </ul>
<b>Measures – Time</b>	<ul style="list-style-type: none"> <li>Vocabulary</li> <li>Days of the week</li> </ul>	<ul style="list-style-type: none"> <li>o'clock</li> <li>months of the year</li> </ul>	<ul style="list-style-type: none"> <li>o'clock and half-past</li> </ul>	<ul style="list-style-type: none"> <li>Quarter to / past</li> <li>Minutes in an hour</li> </ul>	<ul style="list-style-type: none"> <li>Read to the nearest five minutes</li> <li>Hours in a day</li> </ul>	<ul style="list-style-type: none"> <li>Read to the nearest 5 minutes</li> <li>Compare and sequence intervals of time</li> </ul>
<b>Measures – money</b>	<ul style="list-style-type: none"> <li>Recognising coins</li> <li>Counting, addition and subtraction</li> </ul>	<ul style="list-style-type: none"> <li>Exchanging coins</li> <li>Addition and subtraction</li> </ul>	<ul style="list-style-type: none"> <li>Value of coins and notes</li> <li>Calculating with money</li> </ul>	<ul style="list-style-type: none"> <li>Value of coins</li> <li>Making amounts</li> <li>Equivalence</li> </ul>	<ul style="list-style-type: none"> <li>Total set of mixed coins</li> <li>Making amounts</li> </ul>	<ul style="list-style-type: none"> <li>Making amounts</li> <li>Giving change</li> </ul>
<b>Geometry: properties of shapes</b>	<ul style="list-style-type: none"> <li>Recognise and name 2-D and 3-D shapes</li> </ul>	<ul style="list-style-type: none"> <li>2-D shapes</li> </ul>	<ul style="list-style-type: none"> <li>3-D shapes</li> </ul>	<ul style="list-style-type: none"> <li>2-D shape</li> </ul>	<ul style="list-style-type: none"> <li>3-D shape</li> </ul>	<ul style="list-style-type: none"> <li>Symmetry in 2-D shapes</li> </ul>
<b>direction &amp; movement</b>	<ul style="list-style-type: none"> <li>Using everyday language</li> </ul>	<ul style="list-style-type: none"> <li>Whole and half turns</li> </ul>	<ul style="list-style-type: none"> <li>Quarter and three-quarter turns</li> </ul>	<ul style="list-style-type: none"> <li>Rotation as a turn</li> </ul>	<ul style="list-style-type: none"> <li>Position</li> <li>Movement in a straight line</li> </ul>	<ul style="list-style-type: none"> <li>Repeating patterns</li> <li>Sequences</li> </ul>
<b>Statistics</b>				<ul style="list-style-type: none"> <li>Block diagrams</li> <li>Venn diagrams</li> </ul>	<ul style="list-style-type: none"> <li>Tally charts</li> <li>Block diagrams</li> <li>Carroll diagrams</li> </ul>	<ul style="list-style-type: none"> <li>Pictograms</li> </ul>

# Fluency Reasoning Problem Solving

	Year 3			Year 4		
	Autumn	Spring	Summer	Autumn	Spring	Summer
<b>Number</b>	<ul style="list-style-type: none"> <li>Count forwards and backwards</li> <li>Place value and partitioning of three-digit numbers</li> <li>Compare and order numbers up to 1000</li> <li>Round to nearest 10</li> </ul>	<ul style="list-style-type: none"> <li>Count forwards and backwards</li> <li>Place value and partitioning in different ways</li> <li>Read and write numbers in numerals and words</li> <li>Sequences</li> <li>Estimation</li> </ul>	<ul style="list-style-type: none"> <li>Count in steps of 3, 4, 8, 50 and 100</li> <li>Compare and order numbers up to 1000 and use the &lt; &gt; signs</li> <li>Estimate points on a number line</li> <li>Half-way between</li> <li>Round to nearest 10 or 100</li> </ul>	<ul style="list-style-type: none"> <li>Count forwards and backwards</li> <li>Place value and partitioning in different ways</li> <li>Compare and order</li> <li>Round to nearest 10, 100, 1000</li> </ul>	<ul style="list-style-type: none"> <li>Negative numbers in context</li> <li>Compare and order negative numbers</li> <li>Count in steps of 6, 7, 9, 25 and 1000</li> <li>Roman numerals</li> </ul>	<ul style="list-style-type: none"> <li>Place value and partitioning</li> <li>Compare and order</li> <li>Half-way between</li> <li>Sequences to involving negative numbers or decimals</li> </ul>
<b>Addition and Subtraction</b>	<ul style="list-style-type: none"> <li>Number pairs</li> <li>Mental addition and subtraction of two digit numbers</li> <li>Finding a small difference</li> </ul>	<ul style="list-style-type: none"> <li>Number pairs to 100</li> <li>Expanded addition and subtraction</li> <li>Formal columnar addition and subtraction</li> </ul>	<ul style="list-style-type: none"> <li>Mental addition and subtraction of multiples of 10 and 100</li> <li>Formal columnar addition and subtraction of three digit numbers</li> <li>Estimate and use inverse</li> <li>Finding the difference</li> </ul>	<ul style="list-style-type: none"> <li>Mental addition and subtraction</li> <li>Formal columnar addition and subtraction</li> <li>Using inverse to check</li> <li>Number facts to 100</li> </ul>	<ul style="list-style-type: none"> <li>Mental addition and subtraction</li> <li>Formal columnar addition and subtraction</li> <li>Estimate and use inverse to check</li> <li>Number facts</li> <li>Find the difference</li> </ul>	<ul style="list-style-type: none"> <li>Mental addition and subtraction</li> <li>Formal columnar addition and subtraction</li> <li>Estimate and use inverse to check</li> <li>Round and adjust to calculate</li> </ul>
<b>Multiplication and division</b>	<ul style="list-style-type: none"> <li>Times table facts</li> <li>Multiply a teens by a single digit</li> <li>Scaling problems</li> </ul>	<ul style="list-style-type: none"> <li>Times table facts</li> <li>Multiply a two digit by single digit</li> <li>Divide using known facts</li> </ul>	<ul style="list-style-type: none"> <li>Times table facts</li> <li>Divide and multiply a two digit by one digit number</li> </ul>	<ul style="list-style-type: none"> <li>Times tables facts</li> <li>Multiply and divide by 10, 100</li> <li>Informal methods</li> <li>Factor pairs</li> <li>Formal method of multiplication</li> <li>Informal method of division</li> </ul>	<ul style="list-style-type: none"> <li>Times tables facts</li> <li>Vocabulary – multiple, factor, product</li> <li>Formal method of multiplication</li> <li>Informal method of division</li> </ul>	<ul style="list-style-type: none"> <li>Multiply three single digits</li> <li>Formal method of multiplication</li> <li>Mental division</li> <li>Know all facts to 12 x 12</li> <li>Formal method of short division</li> <li>Estimate answers by rounding</li> </ul>
<b>Fractions (including decimals)</b>	<ul style="list-style-type: none"> <li>Compare / order unit fractions</li> <li>Fraction equivalence</li> <li>Unit fraction of amounts</li> </ul>	<ul style="list-style-type: none"> <li>Proper fractions</li> <li>Equivalence</li> <li>Fraction pairs – total one whole</li> </ul>	<ul style="list-style-type: none"> <li>Understand fractions as numbers</li> <li>Understand fractions as division</li> <li>Add and subtract fractions</li> </ul>	<ul style="list-style-type: none"> <li>Recognise and represent equivalences</li> <li>Tenths and hundredths</li> <li>Add and subtract fractions beyond one whole</li> </ul>	<ul style="list-style-type: none"> <li>Fraction families</li> <li>Equivalence using factors and multiples</li> <li>Decimal equivalence <math>\frac{1}{10}, \frac{1}{100}</math></li> <li>Place value to 2 decimal places</li> <li>Compare and order</li> </ul>	<ul style="list-style-type: none"> <li>Recognise equivalence between fractions and decimals</li> <li>Explore equivalence</li> <li>Decimal bonds to 1</li> <li>Round to whole</li> </ul>
<b>Measures</b>	<ul style="list-style-type: none"> <li>Standard units - mass</li> <li>Sensible estimates</li> <li>Reading scales-marked divisions</li> </ul>	<ul style="list-style-type: none"> <li>Standard units - length</li> <li>Estimate and measure</li> <li>Perimeter</li> </ul>	<ul style="list-style-type: none"> <li>Standard units – volume</li> <li>Sensible estimates</li> <li>Reading scales-marked divisions</li> </ul>	<ul style="list-style-type: none"> <li>Know, use and convert standard measures</li> <li>Measure and compare volume</li> <li>Reading scales</li> </ul>	<ul style="list-style-type: none"> <li>Use standard units – length</li> <li>Estimate, measure and compare</li> <li>Perimeter of rectilinear shapes</li> </ul>	<ul style="list-style-type: none"> <li>Area of rectilinear shapes</li> <li>Measure and compare lengths – decimal notation</li> </ul>
<b>Measures – Time</b>	<ul style="list-style-type: none"> <li>Time conventions</li> <li>Read the time to five minutes</li> <li>Analogue, digital, Roman</li> </ul>	<ul style="list-style-type: none"> <li>Read the time to one minute</li> <li>Analogue and digital</li> <li>A.M. and P.M. times</li> </ul>	<ul style="list-style-type: none"> <li>Read the time fluently – using analogue and digital clocks</li> <li>24 hour clock</li> </ul>	<ul style="list-style-type: none"> <li>Read and write to the nearest minute</li> <li>Time durations</li> </ul>	<ul style="list-style-type: none"> <li>Read and write 24 hour clock</li> <li>Convert between 12 and 24 hour</li> </ul>	<ul style="list-style-type: none"> <li>Use timetables</li> <li>Convert between units of time</li> </ul>
<b>Measures – money</b>	<ul style="list-style-type: none"> <li>Equivalence and making amounts</li> </ul>	<ul style="list-style-type: none"> <li>Giving change</li> <li>Money notation (decimals)</li> </ul>	<ul style="list-style-type: none"> <li>Rounding to estimate</li> <li>Equivalence between coins</li> </ul>		<ul style="list-style-type: none"> <li>Money in context</li> </ul>	<ul style="list-style-type: none"> <li>Find totals with money – mental and written methods</li> </ul>
<b>Geometry: properties of shapes</b>	<ul style="list-style-type: none"> <li>Right angles</li> <li>Ordering and comparing angles</li> </ul>	<ul style="list-style-type: none"> <li>Horizontal, vertical, parallel and perpendicular lines</li> <li>Describe &amp; construct 3-D shapes</li> </ul>	<ul style="list-style-type: none"> <li>Symmetry</li> <li>Describe and construct 2-D shapes</li> </ul>	<ul style="list-style-type: none"> <li>Regular and irregular polygons</li> <li>Properties of triangles</li> </ul>	<ul style="list-style-type: none"> <li>Symmetry in polygons</li> <li>Acute and obtuse angles</li> <li>Compare and order angles</li> </ul>	<ul style="list-style-type: none"> <li>Symmetry - lines of orientation</li> <li>Symmetric patterns</li> </ul>
<b>direction &amp; movement</b>					<ul style="list-style-type: none"> <li>Read and plot co-ordinates in the first quadrant</li> </ul>	<ul style="list-style-type: none"> <li>Understand and describe translations</li> </ul>
<b>Statistics</b>	<ul style="list-style-type: none"> <li>Bar charts – scales axis</li> <li>Venn and Carroll diagrams</li> </ul>	<ul style="list-style-type: none"> <li>Pictograms</li> <li>Sort sets of mixed data</li> </ul>	<ul style="list-style-type: none"> <li>Interpret and present data in meaningful ways</li> </ul>	<ul style="list-style-type: none"> <li>Represent and interpret discrete data</li> </ul>	<ul style="list-style-type: none"> <li>Compare and interpret data presented in different ways</li> </ul>	<ul style="list-style-type: none"> <li>Interpret and present continuous data</li> </ul>

# Fluency Reasoning Problem Solving

	Year 5			Year 6 (from Summer 2015)		
	Autumn	Spring	Summer	Autumn	Spring	Summer
<b>Number</b>	<ul style="list-style-type: none"> <li>Place value and partitioning in different ways</li> <li>Compare and order</li> <li>Round to the nearest 10, 100, 1 000, 10 000 and 100 000</li> </ul>	<ul style="list-style-type: none"> <li>Negative numbers</li> <li>Order and compare positive and negative numbers</li> <li>Read Roman numerals to 1000</li> </ul>	<ul style="list-style-type: none"> <li>Linear sequences</li> <li>Half-way between</li> <li>Estimation</li> </ul>	<ul style="list-style-type: none"> <li>Read, write, compare and order numbers to 10 million</li> <li>Place value and partitioning</li> <li>Rounding</li> <li>Estimating</li> </ul>	<ul style="list-style-type: none"> <li>Compare and order positive and negative numbers</li> <li>Calculate intervals between positive and negative numbers</li> </ul>	
<b>Addition and Subtraction</b>	<ul style="list-style-type: none"> <li>Decimal number facts</li> <li>Mental calculation involving large numbers and decimals</li> <li>Formal written methods</li> </ul>	<ul style="list-style-type: none"> <li>Decimals number facts</li> <li>Mental calculation involving large numbers and decimals</li> <li>Formal written methods</li> </ul>	<ul style="list-style-type: none"> <li>Finding the difference</li> <li>Rounding to check</li> <li>Mental calculation involving large numbers and decimals</li> <li>Formal written methods</li> </ul>	<ul style="list-style-type: none"> <li>Factors and primes</li> <li>Mental and written calculation</li> <li>Formal written methods of long multiplication and division</li> </ul>	<ul style="list-style-type: none"> <li>Using brackets and order of operations</li> <li>Formal written methods of multiplication and division</li> </ul>	<ul style="list-style-type: none"> <li>Secure calculation methods</li> <li>Solving problems using all four operations</li> </ul>
<b>Multiplication and division</b>	<ul style="list-style-type: none"> <li>Factor pairs</li> <li>Square numbers</li> <li>Multiply and divide by 10, 100 and 1000</li> <li>Mental calculation</li> <li>Formal written methods</li> </ul>	<ul style="list-style-type: none"> <li>Factor pairs</li> <li>Prime numbers</li> <li>Mental calculation</li> <li>Formal written methods of short division</li> <li>Formal written method of short and long multiplication</li> </ul>	<ul style="list-style-type: none"> <li>Common factors</li> <li>Cube numbers</li> <li>Mental calculation</li> <li>Formal written methods of short division</li> <li>Formal written method of short and long multiplication</li> <li>Scaling problems</li> </ul>			
<b>Fractions (including decimals and percentages)</b>	<ul style="list-style-type: none"> <li>Finding equivalent fractions</li> <li>Mixed numbers and improper fractions</li> <li>Read, write, compare and order decimals</li> <li>Rounding decimals</li> </ul>	<ul style="list-style-type: none"> <li>Add and subtract fractions</li> <li>Find fractions of amounts</li> <li>Conversion between fractions and decimals</li> <li>Equivalence between fractions and decimals</li> </ul>	<ul style="list-style-type: none"> <li>Understanding percentages</li> <li>Finding simple percentages</li> <li>Multiply proper fractions and mixed numbers by whole numbers</li> </ul>	<ul style="list-style-type: none"> <li>Simplify and find equivalence fractions</li> <li>Compare and order fractions</li> <li>Add and subtract proper fractions and mixed numbers</li> <li>Read, write, compare and order decimals</li> <li>Rounding</li> <li>Multiply and divide by 10, 100 and 1000</li> <li>Equivalence between fractions, decimals and percentages</li> </ul>	<ul style="list-style-type: none"> <li>Multiply pairs of proper fractions</li> <li>Divide proper fractions by whole numbers</li> <li>Decimal place value of decimals up to three decimal places</li> <li>Multiply one digit decimals with two decimal places by whole numbers</li> <li>Written short division with answers involving decimals</li> </ul>	<ul style="list-style-type: none"> <li>Equivalence between fractions, decimals and percentages</li> <li>Add and subtract mixed numbers</li> <li>Multiplying and dividing involving decimals</li> </ul>
<b>Ratio and Proportion</b>				<ul style="list-style-type: none"> <li>Know, use and identify scale factors</li> </ul>	<ul style="list-style-type: none"> <li>Understanding and calculating with percentages</li> </ul>	<ul style="list-style-type: none"> <li>Understand and calculate ratio and direct proportion</li> </ul>
<b>Algebra</b>				<ul style="list-style-type: none"> <li>Representing unknowns</li> <li>Express ions</li> </ul>	<ul style="list-style-type: none"> <li>Sequences</li> <li>n<sup>th</sup> term</li> </ul>	<ul style="list-style-type: none"> <li>Expressing an unknown in problems</li> </ul>
<b>Measures</b>	<ul style="list-style-type: none"> <li>Conversions between metric units</li> <li>Perimeter of composite shapes</li> </ul>	<ul style="list-style-type: none"> <li>Conversions between metric and imperial units</li> <li>Calculate and compare the area of rectangles</li> </ul>	<ul style="list-style-type: none"> <li>Time conversions</li> <li>Estimate and compare volume</li> </ul>	<ul style="list-style-type: none"> <li>Perimeter</li> <li>Area of triangles and parallelograms</li> </ul>	<ul style="list-style-type: none"> <li>Estimate, compare and calculate volume</li> <li>Area of compound shapes</li> </ul>	<ul style="list-style-type: none"> <li>Imperial and metric conversions</li> <li>Estimate, compare and calculate volume</li> </ul>
<b>Geometry: properties of shapes</b>	<ul style="list-style-type: none"> <li>Recognise, measure and name angles</li> <li>Calculate missing angles</li> </ul>	<ul style="list-style-type: none"> <li>Diagonal and parallel lines</li> <li>Properties of rectangles</li> </ul>	<ul style="list-style-type: none"> <li>3-D/2-D representations</li> <li>Regular and irregular shapes</li> <li>Angles at a point</li> </ul>	<ul style="list-style-type: none"> <li>Triangles and quadrilaterals</li> <li>Angles in polygons</li> <li>Draw 2d shapes with equipment</li> </ul>	<ul style="list-style-type: none"> <li>Circle properties and construction</li> <li>Angles on a straight line</li> </ul>	<ul style="list-style-type: none"> <li>Drawing and constructing nets</li> <li>Angles in polygons</li> </ul>
<b>direction &amp; movement</b>		<ul style="list-style-type: none"> <li>Reflection</li> </ul>	<ul style="list-style-type: none"> <li>Translation</li> </ul>	<ul style="list-style-type: none"> <li>Plot points in all four quadrants</li> </ul>	<ul style="list-style-type: none"> <li>Translation and reflection</li> </ul>	
<b>Statistics</b>	<ul style="list-style-type: none"> <li>Timetables</li> </ul>	<ul style="list-style-type: none"> <li>Timetables</li> <li>Tables</li> </ul>	<ul style="list-style-type: none"> <li>Line graphs</li> <li>Tables</li> </ul>	<ul style="list-style-type: none"> <li>Pie charts</li> </ul>	<ul style="list-style-type: none"> <li>Mean</li> <li>Pie charts</li> </ul>	<ul style="list-style-type: none"> <li>Line graphs</li> </ul>