

Mathematics Curriculum Objectives

The maths objectives have been split into 2 areas

- ***End Points from the National Curriculum (composites)***
- ***Small steps to meet the End Points (components)***

Number of objectives

The National Curriculum has been split into a number of objectives. These fall into the following categories:

- ***Number***
- ***Place value***
- ***Measure***
- ***Shape***
- ***Ratio and proportion***
- ***Statistics***
- ***Algebra***

By the end of the academic year, pupils in each year group should have covered all of the objectives. Their success against the objectives will provide a measure of their current attainment.

Objectives related to age expectations

Within each term teachers should ensure that they teach the required number of objectives. Successful completion of these objectives should be recorded in Evidence Me.

It is important to note that Evidence Me should not record coverage, when a teacher taught the objective, but should record when a pupils has demonstrated that they have met that objective.

At the end of each term teachers should count how many objectives pupils have successfully completed and link that to a National Curriculum Grade. Example

Year 1 Number Objectives				
1	I can count to 20 forwards	I can count backwards from 20	I can count to 50 forwards	I can count backwards from 50
	I can count to 100 forwards	I can count backwards from 100	I can count forward crossing 100	I can count backward crossing 100
	To count to and across 100, forwards and backwards,			
2	I can read numbers to 20 in numerals	I can read numbers to 50 in numerals	I can read numbers to 100 in numerals	I can write numbers to 20 in numerals
	I can write numbers to 50 in numerals	I can write numbers to 100 in numerals	I can count in multiples of 2	I can count in multiples of 5
	I can count in multiples of 10	To count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens		
3	I know one more than a number to 20	I know one less than a number to 20	I know one more than a number to 50	I know one less than a number to 50
	I know one more than a number to 100	I know one less than a number to 100	To identify one more and one less than a given number	
4	I can identify numbers using objects	I can represent numbers using objects	I can identify numbers using pictorial representations (subitising)	I can represent numbers using pictorial representations (subitising)
	I can identify numbers on a number line	I can represent numbers on a number line	I can identify numbers using the part-whole model	I can represent numbers using the part-whole model
	I can identify numbers using place value counters	I can represent numbers using place value counters	I can identify numbers using tens frames	I can represent numbers using tens frames
	To use the language of equal to	To use the language of more than	To use the language of less than (fewer)	To use the language of most
	To use the language of least	To identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least		
5	To read numbers 1-20 in words	To write numbers 1-20 in words	To read and write numbers from 1 to 20 in numerals and words.	
Year 1 End Points <ol style="list-style-type: none"> count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens given a number, identify one more and one less identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least read and write numbers from 1 to 20 in numerals and words. 				
Year 1 Number addition and subtraction				
1	I can read and interpret mathematical	I can write and interpret mathematical	I can read and interpret mathematical	I can write and interpret mathematical

	statements involving addition	statements involving addition	statements involving subtraction	statements involving subtraction
	I can read, write and interpret the equal sign	To read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs		
2	I know the number bonds to 10	I can write number bonds to 10	I can use related subtraction facts to 10	I know the number bonds to 20
	I can write number bonds to 20	I can use related subtraction facts to 20	To represent and use number bonds and related subtraction facts within 20	
3	I can add one-digit numbers to 10	I can subtract one-digit numbers to 10	I can add one-digit numbers to 20	I can subtract one-digit numbers to 20
	To add and subtract one-digit and two-digit numbers to 20, including zero			
4	I can solve one step addition problems using concrete objects	I can solve one step subtraction problems using concrete objects	I can solve one step addition problems using part whole models	I can solve one step subtraction problems using part whole models
	I can solve one step addition problems using number lines	I can solve one step subtraction problem using number lines	I can solve one step addition problems using tens frames	I can solve one step subtraction problems using tens frames
	I can solve missing number problems such as $7 = _ - 9$	To solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = _ - 9$.		
<p>Year 1 End Points</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> 1. read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs 2. represent and use number bonds and related subtraction facts within 20 3. add and subtract one-digit and two-digit numbers to 20, including zero 4. solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = _ - 9$. 				
Year 1 Number – Multiplication and division				
1	To solve one step problems involving multiplication using concrete objects	To solve one step problems involving division using concrete objects	To solve one step problems involving multiplication using bar models	To solve one step problems involving division using bar models
	To solve one step problems involving multiplication using arrays with the support of a teacher	To solve one step problems involving division using arrays with the support of a teacher	To solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	
<p>Year 1 End Points</p> <ul style="list-style-type: none"> • solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher. 				

Year 1 Number – Fractions				
1	I can recognise half of an object or shape	I can recognise half of a quantity	I can find half of an object or shape	I can find half of a quantity
	I know that half is two equal parts of an object, shape or quantity	To recognise, find and name a half as one of two equal parts of an object, shape or quantity		
2	I can recognise a quarter of an object or shape	I can recognise quarter of a quantity	I can find a quarter of an object or shape	I can find a quarter of a quantity
	I know that a quarter is four equal parts of an object, shape or quantity	To recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.		
Year 1 End Points <ol style="list-style-type: none"> recognise, find and name a half as one of two equal parts of an object, shape or quantity recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. 				
Year 1 - Measurement				
1	I can compare length and heights	I can compare mass and weight	I can compare capacity and volume	I can compare time
	I can describe length and heights	I can describe mass and weight	I can describe capacity and volume	I can describe time
	I can solve practical problems with length and heights	I can solve practical problems with mass and weight	I can solve practical problems with capacity and volume	I solve practical problems with time
	To compare, describe and solve practical problems for: lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] mass/weight [for example, heavy/light, heavier than, lighter than] capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] time [for example, quicker, slower, earlier, later]			
2	I can measure lengths and heights	I can measure mass and weight	I can measure capacity and volume	I can measure time
	I can record lengths and heights	I can record mass and weight	I can record capacity and volume	I can record time
	I know the vocabulary for time: hours, minutes, seconds	To measure and begin to record the following: lengths and height, mass/weight, capacity and volume, time (hours, minutes, seconds)		
3	I can recognise a 1p and 2p coin	I can recognise a 5p and 10p coin	I can recognise a 20p and 50p coin	I can recognise a £1 and £2 coin
	I can recognise a £5 and £10 note	I can recognise a £20 and £50 note	I know the value of different coins	I know the value of different notes
	To recognise and know the value of different denominations of coins and notes			
4	I can sequence the order of events using before and after	I can sequence the order of events using next and first	I can sequence the order of events using	I can sequence the order of events using

			today, yesterday and tomorrow	morning, afternoon and evening
To sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]				
5	I can recognise language relating to days of the week	I can recognise language relating to weeks	I can recognise language relating to months	I can recognise language relating to years
	I can use language relating to days of the week	I can use language relating to weeks	I can use language relating to months	I can use language relating to years
	To recognise and use language relating to dates, including days of the week, weeks, months and years			
6	I can tell the time to the hour	I can tell the time to half past the hour	I can draw the hands on a clock to show times to the hour	I can draw the hands on a clock to show times to half past.
	To tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.			
<p>Year 1 End Points:</p> <ol style="list-style-type: none"> compare, describe and solve practical problems for: <ul style="list-style-type: none"> -lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] -mass/weight [for example, heavy/light, heavier than, lighter than] -capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] -time [for example, quicker, slower, earlier, later] measure and begin to record the following: <ul style="list-style-type: none"> -lengths and heights -mass/weight -capacity and volume -time (hours, minutes, seconds) recognise and know the value of different denominations of coins and notes sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] recognise and use language relating to dates, including days of the week, weeks, months and years tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. 				
Year 1 - Geometry – Properties of Shape				
1	I can recognise rectangles	I can recognise squares	I can recognise circles	I can recognise triangles
	I can name a rectangle	I can name a square	I can name a circle	I can name a triangle
	To recognise and name 2-D shapes			
2	I can recognise cuboids	I can recognise cubes	I can recognise pyramids	I can recognise spheres
	I can name a cuboid	I can name a cube	I can name a pyramid	I can name a sphere
	To recognise and name 3-D shapes			
Year 1 end points				

recognise and name common 2-D and 3-D shapes, including:

1. 2-D shapes [for example, rectangles (including squares), circles and triangles]
2. 3-D shapes [for example, cuboids (including cubes), pyramids and spheres].

Year 1 - Geometry – Position and Direction

1	I can describe a whole turn	I can describe a half turn	I can describe a quarter turn	I can describe a three-quarter turn
	I can identify anti clockwise	I can identify clockwise	To describe position, direction and movement, including whole, half, quarter and three-quarter turns.	

Year 1 end points

Pupils should be taught to:

1. describe position, direction and movement, including whole, half, quarter and three-quarter turns.

Year 2 Number & Place Value				
1	I can count in steps of 2 forwards from 0	I can count in steps of 2 backwards	I can count in steps of 3 forwards from 0	I can count in steps of 3 backwards
	I can count in steps of 5 forwards from 0	I can count in steps of 5 backwards	I can count in steps of 10 forwards from any given number	I can count in steps of 10 backwards from any given number
	To count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward			
2	I can recognise the value of ones in a two-digit number	I can recognise the value of tens in a two-digit number	To recognise the place value of each digit in a two-digit number (tens, ones)	
3	I can identify numbers using the number line	I can represent numbers using the number line	I can estimate numbers using the number line	I can identify numbers using the part-whole model
	I can represent numbers using the part-whole model	I can identify numbers using place value counters	I can represent numbers using place value counters	I can identify numbers using base ten
	I can represent numbers using base ten	I can identify numbers using the place value grid	I can represent numbers using the place value grid	To identify, represent and estimate numbers using different representations, including the number line
4	To compare numbers from 0 – 50 using <, > and = signs	To order numbers from 0 – 50	To compare numbers from 0 – 100 using <, > and = signs	To order numbers from 0 – 100
	To compare and order numbers from 0 up to 100; use <, > and = signs			
5	I can read numbers to at least 50 in numerals	I can write numbers to at least 50 in numerals	I can read numbers to at least 50 in words	I can write numbers to at least 50 in words
	I can read numbers to at least 100 in numerals	I can write numbers to at least 100 in numerals	I can read numbers to at least 100 in words	I can write numbers to at least 100 in words
	To read and write numbers to at least 100 in numerals and in words			
6	I can use place value to solve problems	I can use number facts to solve problems	To use place value and number facts to solve problems	
<p>Year 2 End Points</p> <ol style="list-style-type: none"> count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward recognise the place value of each digit in a two-digit number (tens, ones) identify, represent and estimate numbers using different representations, including the number line compare and order numbers from 0 up to 100; use <, > and = signs read and write numbers to at least 100 in numerals and in words use place value and number facts to solve problems 				

Year 2 Addition & Subtraction					
1	I can solve problems with addition using concrete objects involving numbers	I can solve problems with subtraction using concrete objects involving numbers	I can solve problems with addition using concrete objects involving quantities	I can solve problems with subtraction using concrete objects involving quantities	
	I can solve problems with addition using concrete objects involving measures	I can solve problems with subtraction using concrete objects involving measures	I can solve problems with addition using base ten involving numbers	I can solve problems with subtraction using base ten involving numbers	
	I can solve problems with addition using the part-whole model involving numbers	I can solve problems with subtraction using the part-whole model involving numbers	I can solve problems with addition using the bar model involving numbers	I can solve problems with subtraction using the bar model involving numbers	
	I can solve problems with addition using the place value grid involving numbers	I can solve problems with subtraction using the place value grid involving numbers	I can solve problems with addition using a number line involving numbers	I can solve problems with subtraction using a number line involving numbers	
	I can solve problems with addition using the part-whole model involving quantities	I can solve problems with subtraction using the part-whole model involving quantities	I can solve problems with addition using the bar model involving quantities	I can solve problems with subtraction using the bar model involving quantities	
	I can solve problems with addition using the place value grid involving quantities	I can solve problems with subtraction using the place value grid involving quantities	I can solve problems with addition using the part-whole model involving measures	I can solve problems with subtraction using the part-whole model involving measures	
	I can solve problems with addition using the bar model involving measures	I can solve problems with subtraction using the bar model involving measures	I can solve problems with addition using the place value grid involving measures	I can solve problems with subtraction using the place value grid involving measures	
	To solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures				
	I can solve problems with addition using mental methods (knowledge of number bonds)	I can solve problems with subtraction using mental methods (knowledge of number bonds)	I can solve problems with addition using mental methods (visual number line)	I can solve problems with subtraction using mental methods (visual number line)	
	I can solve problems with addition using mental methods (knowledge of doubles/halves)	I can solve problems with subtraction using mental methods (knowledge of doubles/halves)	I can solve problems with addition using written methods (a number line)	I can solve problems with subtraction using written methods (a number line)	

	I can solve problems with addition using written methods (column addition without carrying)	I can solve problems with addition using written methods (column addition with carrying)	I can solve problems with subtraction using written methods (column subtraction without decomposition)	I can solve problems with subtraction using written methods (column subtraction with decomposition)
	To solve problems with addition and subtraction: applying their increasing knowledge of mental and written methods			
2	I can recall addition facts to 20 fluently	I can recall subtraction facts to 20 fluently	I can use addition facts to 20 fluently	I can use subtraction facts to 20 fluently
	I can recall and use addition facts to 20 fluently to derive related facts to 100	I can recall and use subtraction facts to 20 to derive related facts to 100	To recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100	
3	I can add a 2-digit number and ones using concrete objects	I can subtract a 2-digit number and ones using concrete objects	I can add a 2-digit number and ones using a number line	I can subtract a 2-digit number and ones using a number line
	I can add a 2-digit number and ones using the part-whole model	I can subtract a 2-digit number and ones using the part-whole model	I can add a 2-digit number and ones using the bar model	I can subtract a 2-digit number and ones using the bar model
	I can add a 2-digit number and ones mentally	I can subtract a 2-digit number and ones mentally	I can add a 2-digit number and tens using concrete objects	I can subtract a 2-digit number and tens using concrete objects
	I can add a 2-digit number and tens using a number line	I can subtract a 2-digit number and tens using a number line	I can add a 2-digit number and tens using the part-whole model	I can subtract a 2-digit number and tens using the part-whole model
	I can add a 2-digit number and tens using the bar model	I can subtract a 2-digit number and tens using the bar model	I can add a 2-digit number and tens mentally	I can subtract a 2-digit number and tens mentally
	I can add two 2-digit numbers using concrete objects	I can subtract two 2-digit numbers using concrete objects	I can add two 2-digit numbers using a number line	I can subtract two 2-digit numbers using a number line
	I can add two 2-digit numbers using the part whole model	I can subtract two 2-digit numbers using the part whole model	I can add two 2-digit numbers using the bar model	I can subtract two 2-digit numbers using the bar model
	I can add two 2-digit numbers mentally	I can subtract two 2-digit numbers mentally	I can add three 1-digit numbers using concrete objects	I can subtract three 1-digit numbers using concrete objects
	I can add three 1-digit numbers using a number line	I can subtract three 1-digit numbers using a number line	I can add three 1-digit numbers using the part-whole model	I can subtract three 1-digit numbers

				using the part-whole model
	I can add three 1-digit numbers using the bar model	I can subtract three 1-digit numbers using the bar model	I can add three 1-digit numbers mentally	I can subtract three 1-digit numbers mentally
	To add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers			
4	I know that addition of two numbers can be done in any order (commutative law)	I know that subtraction cannot be done in any order	To show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot	
5	I know that inverse means opposite	I can recognise the inverse relationship between addition and subtraction	I can use the inverse operation to check calculations	I can use the inverse operation to solve missing number addition problems
	I can use the inverse operation to solve missing number subtraction problems	To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.		

Year 2 End Points

1. solve problems with addition and subtraction:
 - using concrete objects and pictorial representations, including those involving numbers, quantities and measures
 - applying their increasing knowledge of mental and written methods
2. recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
3. add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
 - a two-digit number and ones
 - a two-digit number and tens
 - two two-digit numbers
 - adding three one-digit numbers
4. show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
5. recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

Year 2 Multiplication & Division

1	I can recall multiplication facts for the 2 times table	I can recall division facts for the 2 times table	I can use multiplication facts for the 2 times table	I can use division facts for the 2 times table
	I can recall multiplication facts for the 5 times table	I can recall division facts for the 5 times table	I can use multiplication facts for the 5 times table	I can use division facts for the 5 times table
	I can recall multiplication facts for the 10 times table	I can recall division facts for the 10 times table	I can use multiplication facts for the 10 times table	I can use division facts for the 10 times table
	I can recognise odd numbers	I can recognise even numbers	To recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers	

2	I can calculate mathematical statements for multiplication and write them using \times and $=$ signs	I can calculate mathematical statements for division and write them using \div and $=$ signs	To calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs	
3	I know that multiplication of two numbers can be done in any order (commutative law)	I know that division cannot be done in any order	To show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	
4	I can solve problems involving multiplication using materials (concrete objects)	I can solve problems in different contexts involving multiplication using materials (concrete objects)	I can solve problems involving multiplication using arrays	I can solve problems in different contexts involving multiplication using arrays
	I can solve problems involving multiplication using repeated addition	I can solve problems in different contexts involving multiplication using repeated addition	I can solve problems involving multiplication using mental methods	I can solve problems in different contexts involving multiplication using mental methods,
	I can solve problems involving multiplication using times table facts	I can solve problems in different contexts involving multiplication using times table facts	I can solve problems involving division using materials (concrete objects)	I can solve problems in different contexts involving division using materials (concrete objects)
	I can solve problems involving division using arrays	I can solve problems in different contexts involving division using arrays	I can solve problems involving division using repeated addition	I can solve problems in different contexts involving division using repeated addition
	I can solve problems involving division using mental methods	I can solve problems in different contexts involving division using mental methods,	I can solve problems involving division using times table facts	I can solve problems in different contexts involving division using times table facts
	To solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.			
<p>Year 2 End Points</p> <ol style="list-style-type: none"> recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. 				

Year 2 Fractions				
1	I can recognise and name $\frac{1}{3}$ of a length	I can recognise and name $\frac{1}{4}$ of a length	I can recognise and name $\frac{2}{4}$ of a length	I can recognise and name $\frac{3}{4}$ of a length
	I can recognise and name $\frac{1}{3}$ of a shape	I can recognise and name $\frac{1}{4}$ of a shape	I can recognise and name $\frac{2}{4}$ of a shape	I can recognise and name $\frac{3}{4}$ of a shape
	I can recognise and name $\frac{1}{3}$ of a set of objects	I can recognise and name $\frac{1}{4}$ of a set of objects	I can recognise and name $\frac{2}{4}$ of a set of objects	I can recognise and name $\frac{3}{4}$ of a set of objects
	I can recognise and name $\frac{1}{3}$ of a quantity	I can recognise and name $\frac{1}{4}$ of a quantity	I can recognise and name $\frac{2}{4}$ of a quantity	I can recognise and name $\frac{3}{4}$ of a quantity
	I can find $\frac{1}{3}$ of a length	I can find $\frac{1}{4}$ of a length	I can find $\frac{2}{4}$ of a length	I can find $\frac{3}{4}$ of a length
	I can find $\frac{1}{3}$ of a shape	I can find $\frac{1}{4}$ of a shape	I can find $\frac{2}{4}$ of a shape	I can find $\frac{3}{4}$ of a shape
	I can find $\frac{1}{3}$ of a set of objects	I can find $\frac{1}{4}$ of a set of objects	I can find $\frac{2}{4}$ of a set of objects	I can find $\frac{3}{4}$ of a set of objects
	I can find $\frac{1}{3}$ of a quantity	I can find $\frac{1}{4}$ of a quantity	I can find $\frac{2}{4}$ of a quantity	I can find $\frac{3}{4}$ of a quantity
	I can name and write $\frac{1}{3}$	I can name and write $\frac{1}{4}$	I can name and write $\frac{2}{4}$	I can name and write $\frac{3}{4}$
	To recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity			
2	I can write simple fractions (e.g. $\frac{1}{2}$ of 6 = 3)	I know the equivalence of $\frac{2}{4}$ is $\frac{1}{2}$	To write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$	
Year 2 End Points				
<ol style="list-style-type: none"> recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$ 				
Year 2 Measurement Objectives				
1	I can choose and use appropriate standard units to estimate length/height (m/cm)	I can choose and use appropriate standard units to measure length/height with a ruler (m/cm)	I can choose and use appropriate standard units to estimate mass (kg/g)	I can choose and use appropriate standard units to measure mass with scales (kg/g)
	I can choose and use appropriate standard units to estimate temperature ($^{\circ}\text{C}$)	I can choose and use appropriate standard units to measure temperature with a thermometer ($^{\circ}\text{C}$)	I can choose and use appropriate standard units to estimate capacity (litres/ml)	I can choose and use appropriate standard units to measure capacity with measuring vessels (litres/ml)
	To choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels			

2	I can compare lengths using $<$, $>$ and $=$ signs	I can order lengths using $<$, $>$ and $=$ signs	I can compare mass using $<$, $>$ and $=$ signs	I can order mass using $<$, $>$ and $=$ signs
	I can compare volume/capacity using $<$, $>$ and $=$ signs	I can order volume/capacity using $<$, $>$ and $=$ signs	I can record the results of my measurements using $<$, $>$ and $=$ signs	To compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$
3	I can recognise the symbol for pounds (£)	I can recognise the symbol for pence (p)	I can use the symbol for pounds (£)	I can use the symbol for pence (p)
	I can combine amounts to make a given total using pence (up to 99p)	I can combine amounts to make a given total using pounds	I can combine amounts to make a given total using pounds and pence	To recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value
4	I can use different combinations of coins to make a given total	To find different combinations of coins that equal the same amounts of money		
5	I can solve problems in practical contexts involving addition of money of the same unit	I can solve problems in practical contexts involving subtraction of money of the same unit	I can solve problems in practical contexts including giving change	To solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
6	I can compare intervals of time (down to 5 minutes)	I can put intervals of time in order	To compare and sequence intervals of time	
7	I can tell the time for quarter past the hour	I can tell the time for quarter to the hour	I can write the time for quarter past the hour	I can write the time for quarter to the hour
	I can draw the hands on a clock to show the times quarter past the hour	I can draw the hands on a clock to show the times quarter to the hour	I can tell the time to five minutes	I can write the time to five minutes
	I can draw the hands on a clock to show the times to five minute intervals	To tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times		
8	I know how many minutes there are in one hour	I know how many hours there are in one day	To know the number of minutes in an hour and the number of hours in a day	
<p>Year 2 End Points</p> <ol style="list-style-type: none"> choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature ($^{\circ}$C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels compare and order lengths, mass, volume/capacity and record the results using $>$, $<$ and $=$ recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value find different combinations of coins that equal the same amounts of money 				

5. solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
6. compare and sequence intervals of time
7. tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times
8. know the number of minutes in an hour and the number of hours in a day.

Year 2 Shape Objectives

1	I know the vocabulary to describe properties of 2D shapes: sides, vertices, lines of symmetry	I can identify the properties of 2D shapes, including the number of sides and lines of symmetry	I can describe the properties of 2D shapes, including the number of sides and lines of symmetry	To identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
2	I know the vocabulary to describe properties of 3D shapes: edges, vertices and faces	I can identify the properties of 3D shapes: edges, vertices and faces	I can describe the properties of 3D shapes: edges, vertices and faces	To identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
3	I can identify and name squares	I can identify and name rectangles	I can identify and name circles	I can identify and name triangles
	I can identify and name a cube	I can identify and name a cuboid	I can identify and name a cylinder	I can identify and name a sphere
	I can identify and name a square based pyramid	I can identify and name a cone	I can identify and name a triangular prism	I can identify and name a triangular pyramid
	I can identify 2D shapes on the 3D shapes (e.g. a circle on a cylinder)	To identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]		
4	I can sort 2D shapes: triangles, squares, rectangles, pentagons, hexagons, heptagons, octagons, nonagons, decagons	I can sort 3D shapes: cone, cube, cuboid, cylinder, sphere, triangular prism, triangular based pyramid, square based pyramid	I can sort everyday objects in to 2D and 3D shapes	I can compare 2D shapes
	I can compare 3D shapes	To compare and sort common 2-D and 3-D shapes and everyday objects		

Year 2 End Points				
<ol style="list-style-type: none"> identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] compare and sort common 2-D and 3-D shapes and everyday objects 				
Year 2 Position and Direction				
1	I can order objects to complete a pattern or sequence	I can arrange objects to complete a pattern of sequence	To order and arrange combinations of mathematical objects in patterns and sequences	
2	I can use mathematical vocabulary to describe position: position, over, under, underneath, above, below, top, bottom, side, on, in outside, inside, around, in front, behind, front, back		I can use mathematical vocabulary to describe direction: left, right, up, down, higher, lower, forwards, backwards, sideways, across, close, far, near, along, through, to, from, towards, away from	
	I can use mathematical vocabulary to describe movement: clockwise, anti-clockwise, movement, slide, roll, whole turn, half turn, quarter turn, right angle, straight line, stretch, bend		I can describe the movement of turns using right angles for $\frac{1}{4}$ turns	
	I can describe the movement of turns using right angles for $\frac{2}{4}$ ($\frac{1}{2}$) turns	I can describe the movement of turns using right angles for $\frac{3}{4}$ turns	I know clockwise direction	I know anti-clockwise direction
	To use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).			
Year 2 End Points				
<ol style="list-style-type: none"> order and arrange combinations of mathematical objects in patterns and sequences use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise). 				
Year 2 Statistics				
1	I can interpret simple pictograms	I can interpret tally charts	I can interpret block diagrams	I can interpret simple tables
	I can construct simple pictograms	I can construct tally charts	I can construct block diagrams	I can construct simple tables
	To interpret and construct simple pictograms, tally charts, block diagrams and simple tables			
2	I can ask simple questions about a number of objects	I can answer simple questions about a number of objects	I can sort a number of objects into categories	To ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity

3	I can ask questions about data	I can answer questions about data	I can interpret data to ask and answer questions about totals	I can compare data to ask and answer questions
	To ask and answer questions about totalling and comparing categorical data.			
<p>Year 2 End Points</p> <ol style="list-style-type: none"> 1. interpret and construct simple pictograms, tally charts, block diagrams and simple tables 2. ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity 3. ask and answer questions about totalling and comparing categorical data. 				

Year 3 Number and Place Value				
1	I can count from 0 in multiples of 4	I can count from 0 in multiples of 8	I can count from 0 in multiples of 50	I can count from 0 in multiples of 100
	I can find 10 more than any number up to 1000	I can find 10 less any number up to 1000	I can find 100 more than any number up to 1000	I can find 100 less any number up to 1000
	To count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number			
2	I can recognise the value of ones in a three-digit number	I can recognise the value of tens in a three-digit number	I can recognise the value of hundreds in a three-digit number	To recognise the place value of each digit in a three-digit number (hundreds, tens, ones)
3	I can compare numbers up to 200 using $<$ $>$ and $=$ signs	I can compare numbers up to 500 using $<$ $>$ and $=$ signs	I can compare numbers up to 1000 using $<$ $>$ and $=$ signs	I can order numbers up to 200
	I can order numbers up to 500	I can order numbers up to 1000	To compare and order numbers up to 1000	
4	I can identify three-digit numbers using base ten	I can identify three-digit numbers using place value counters	I can identify three-digit numbers using part-whole model diagrams	I can identify three-digit numbers using arrow place value cards
	I can identify three-digit numbers using place value grids	I can represent three-digit numbers using base ten	I can represent three-digit numbers using place value counters	I can represent three-digit numbers using part-whole model diagrams
	I can represent three-digit numbers using arrow place value cards	I can represent three-digit numbers using place value grids	I can estimate three-digit numbers using base ten	I can estimate three-digit numbers using place value counters
	To identify, represent and estimate numbers using different representation			
5	I can read numbers up to 200 in numerals	I can read numbers up to 500 in numerals	I can read numbers up to 1000 in numerals	I can write numbers up to 200 in numerals
	I can write numbers up to 500 in numerals	I can write numbers up to 1000 in numerals	I can read numbers up to 200 in words	I can read numbers up to 500 in words
	I can read numbers up to 1000 in words	I can write numbers up to 200 in words	I can write numbers up to 500 in words	I can write numbers up to 1000 in words
	To read and write numbers up to 1000 in numerals and words			
6	I can solve number problems involving multiples of 4, 8, 50 and 100	I can solve practical problems involving multiples of 4, 8, 50 and 100	I can solve number problems involving finding 10 more or less than a given number	I can solve practical problems involving finding 10 more or less than a given number

	I can solve number problems involving finding 100 more or less than a given number	I can solve practical problems involving finding 100 more or less than a given number	I can solve number problems involving place value of three-digit numbers	I can solve practical problems involving place value of three-digit numbers
	I can solve number problems involving comparing numbers up to 1000	I can solve practical problems involving comparing numbers up to 1000	I can solve number problems involving ordering numbers to 1000	I can solve practical problems involving ordering numbers to 1000
	I can solve number problems using estimating	I can solve practical problems using estimating	I can solve number problems using different representations	I can solve practical problems using different representations
	I can solve number problems with numbers up to 1000 in numerals	I can solve practical problems with numbers up to 1000 in numerals	I can solve number problems with numbers up to 1000 in words	I can solve practical problems with numbers up to 1000 in words
To solve number problems and practical problems involving these ideas				
<p>Year 3 end points</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number recognise the place value of each digit in a three-digit number (hundreds, tens, ones) compare and order numbers up to 1000 identify, represent and estimate numbers using different representations read and write numbers up to 1000 in numerals and in words solve number problems and practical problems involving these ideas 				
Year 3 Number – addition and subtraction				
1	I can add numbers mentally including a three digit and ones	I can subtract numbers mentally including a three digit and ones	I can add numbers mentally including a three digit and tens	I can subtract numbers mentally including a three digit and tens
	I can add numbers mentally including a three digit and hundreds	I can subtract numbers mentally including a three digit and hundreds	add and subtract numbers mentally, including: a three-digit number and ones a three-digit number and tens a three-digit number and hundreds	
2	I can add three digit numbers using the column addition written method without exchanging	I can add three digit numbers using the column addition written method with exchanging	I can subtract three digit numbers using the column subtraction written method without exchanging	I can subtract three digit numbers using the column subtracting written method with exchanging
	To add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction			

3	I can estimate the answer to an addition calculation	I can estimate the answer to a subtraction calculation	I can use the inverse operation to check answers to calculations	To estimate the answer to a calculation and use inverse operations to check answers
4	I can solve problems using number facts	I can solve missing numbers problems using number facts	I can solve problems using place value	I can solve missing number problems using place value
	I can solve problems using column addition written methods of three-digit numbers with exchanging (carrying)	I can solve problems using column subtraction written methods of three-digit numbers with exchanging (borrowing)	I can solve missing number problems in column addition written methods	I can solve missing number problems in column subtraction methods
	To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction			

Year 3 End Points:

Pupils should be taught to:

1) add and subtract numbers mentally, including:

- a three-digit number and ones
- a three-digit number and tens
- a three-digit number and hundreds

2) add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction

3) estimate the answer to a calculation and use inverse operations to check answers

4) solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Year 3 Number – Multiplication and Division

1	I can recall multiplication facts for the 3 times table	I can recall multiplication facts for the 4 times table	I can recall multiplication facts for the 8 times table	I can recall division facts for the 3 times table
	I can recall division facts for the 4 times table	I can recall division facts for the 8 times table	I can use multiplication facts for the 3 times table	I can use multiplication facts for the 4 times table
	I can use multiplication facts for the 5 times table	I can use division facts for the 3 times table	I can use division facts for the 4 times table	I can use division facts for the 8 times table
	To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables			
2	I can write mathematical statements for multiplication of the 2 times table	I can write mathematical statements for multiplication of the 3 times table	I can write mathematical statements for multiplication of the 4 times table	I can write mathematical statements for multiplication of the 5 times table

	I can write mathematical statements for multiplication of the 8 times table	I can write mathematical statements for multiplication of the 10 times table	I can write mathematical statements for division of the 2 times table	I can write mathematical statements for division of the 3 times table
	I can write mathematical statements for division of the 4 times table	I can write mathematical statements for division of the 5 times table	I can write mathematical statements for division of the 8 times table	I can write mathematical statements for division of the 10 times table
	I can calculate mentally mathematical statements for multiplication of the 2 times table	I can calculate mentally mathematical statements for multiplication of the 3 times table	I can calculate mentally mathematical statements for multiplication of the 4 times table	I can calculate mentally mathematical statements for multiplication of the 5 times table
	I can calculate mentally mathematical statements for multiplication of the 8 times table	I can calculate mentally mathematical statements for multiplication of the 10 times table	I can calculate mentally mathematical statements for division of the 2 times table	I can calculate mentally mathematical statements for division of the 3 times table
	I can calculate mentally mathematical statements for division of the 4 times table	I can calculate mentally mathematical statements for division of the 5 times table	I can calculate mentally mathematical statements for division of the 8 times table	I can calculate mentally mathematical statements for division of the 10 times table
	I can write and calculate multiplication calculations for 2-digits and 1-digit numbers using mental strategies	I can write and calculate multiplication calculations for 2-digits and 1-digit numbers using the grid method	I can write and calculate multiplication calculations for 2-digits and 1-digit numbers using short multiplication method	
	To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods			
3	I can solve problems involving multiplication	I can solve problems involving division	I can solve missing number problems involving multiplication	I can solve missing number problems involving division
	I can solve problems involving scaling using multiplication	I can solve problems involving scaling using division	I can solve correspondence problems using multiplication	I can solve correspondence problems using division
	To solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.			
<p>Year 3 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods 				

3. solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

Year 3 Number – Fractions				
1	I can count up in tenths	I can count down in tenths	I can recognise that tenths arise from dividing an object into 10 equal parts	I can divide one digit numbers by 10
	I can divide quantities by 10 To count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10			
2	I know what a unit fraction is	I know what a non-unit fraction is	I can recognise unit fractions of a discrete set of objects	I can find unit fractions of a discrete set of objects
	I can write unit fractions of a discrete set of objects	I can recognise non-unit fractions of a discrete set of objects	I can find non-unit fractions of a discrete set of objects	I can write non-unit fractions of a discrete set of objects
	To recognise, find and write fractions of a discrete set of objects: unit fractions and non unit fractions with small denominators			
3	I can recognise unit fractions as numbers	I can use unit fractions as numbers	I can recognise non-unit fractions as numbers	I can use non-unit fractions as numbers
	To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators			
4	I know what equivalent means	I can recognise equivalent fractions using diagrams	I can show equivalent fractions using diagrams	To recognise and show, using diagrams, equivalent fractions with small denominators
5	I can add fractions with the same denominator	I can subtract fractions with the same denominator	To add and subtract fractions with the same denominator within one whole (for example, $5/7 + 1/7 = 6/7$)	
6	I can compare unit fractions using $<$ $>$ and $=$ signs	I can order unit fractions	I can compare non-unit fractions with the same denominator using $<$ $>$ and $=$ signs	I can order non-unit fractions with the same denominator
	To compare and order unit fractions, and fractions with the same denominators			
7	I can solve problems involving counting in tenths	I can solve problems involving finding unit fractions of a discrete set of objects	I can solve problems involving finding non-unit fractions of a discrete set of objects	I can solve problems involving equivalent fractions
	I can solve problems involving addition fractions	I can solve problems involving subtracting fractions	I can solve problems involving comparing unit fractions	I can solve problems involving ordering unit fractions
	To solve problems that involve all of the above			

Year 3 End Points:

Pupils should be taught to:

1. count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10
2. recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators
3. recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
4. recognise and show, using diagrams, equivalent fractions with small denominators
5. add and subtract fractions with the same denominator within one whole (for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$)
6. compare and order unit fractions, and fractions with the same denominators
7. solve problems that involve all of the above.

Year 3 Measurement

1	I can measure lengths in m, cm and mm	I can compare lengths in m, cm and mm < > and = signs	I can add lengths in m, cm and mm	I can subtract lengths in m, cm and mm
	I can measure mass in kg and g	I can compare mass in kg and g using < > and = signs	I can add mass in kg and g	I can subtract mass in kg and g
	I can measure volume/capacity in l and ml	I can compare volume/capacity in l and ml using < > and = signs	I can add volume/capacity in l and ml	I can subtract volume/capacity in l and ml
	To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)			
2	I can measure the perimeter of a square	I can measure the perimeter of a rectangle	I can measure the perimeter of a triangle	I can measure the perimeter quadrilateral
	I can measure the perimeter of a pentagon	I can measure the perimeter of a hexagon	I can measure the perimeter of an octagon	To measure the perimeter of simple 2-D shapes
3	I can add amounts of money using £ in practical contexts	I can subtract amounts of money using £ in practical contexts	I can add amounts of money using p in practical contexts	I can subtract amounts of money using p in practical contexts
	I can add amounts of money to give change in practical contexts	I can subtract amounts of money to give change in practical contexts	To add and subtract amounts of money to give change, using both £ and p in practical contexts	
4	I can tell the time from an analogue clock	I can write the time from an analogue clock	I can tell the time from an analogue clock using Roman numerals from I to XII	I can write the time from an analogue clock using Roman numerals from I to XII
	I can tell the time from a digital 12-hour clock	I can tell the time from a digital 24-hour clock	I can write the time from a digital 12-hour clock	I can write the time from a digital 24-hour clock
	To tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks			

5	I can estimate time with increasing accuracy to the nearest minute	I can read time with increasing accuracy to the nearest minute	I can record time in seconds	I can record time in minutes
	I can record time in hours	I can compare time in seconds	I can compare time in minutes	I can compare time in hours
	I can use vocabulary such as o'clock, a.m., p.m., morning, afternoon, noon and midnight	To estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight		
6	I know the number of seconds in a minute	I know the number of days in each month	I know the number of days in a year	I know the number of days in a leap year
	To know the number of seconds in a minute and the number of days in each month, year and leap year			
7	I can compare durations of events using < > and = signs	I can calculate the time taken by different events or tasks	To compare durations of events [for example to calculate the time taken by particular events or tasks].	
<p>Year 3 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml) measure the perimeter of simple 2-D shapes add and subtract amounts of money to give change, using both £ and p in practical contexts tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight know the number of seconds in a minute and the number of days in each month, year and leap year compare durations of events [for example to calculate the time taken by particular events or tasks]. 				
Year 3 Geometry – Properties of Shape				
1	I can draw squares	I can draw rectangles	I can draw triangles	I can draw circles
	I can draw quadrilaterals	I can make spheres using modelling materials	I can make cubes using modelling materials	I can make cuboids using modelling materials
	I can make cones using modelling materials	I can recognise 3D shapes in different orientations	I can describe 3D shapes in different orientations	To draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them
2	I can recognise angles as a property of shape	I can recognise angles as a description of a turn	To recognise angles as a property of shape or a description of a turn	

3	I can recognise right angles	I can identify right angles	I know that one right angle makes a quarter turn	I know that two right angles make a half turn
	I know that three right angles make a three-quarter turn	I know that four right angles make a whole turn	I can identify angles which are greater than a right angle	I can identify angles which are less than a right angle
	To identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle			
4	I know what horizontal lines are	I can identify horizontal lines	I know what vertical lines are	I can identify vertical lines
	I know what perpendicular lines are	I can identify pairs of perpendicular lines	I know what parallel lines are	I can identify parallel lines
	To identify horizontal and vertical lines and pairs of perpendicular and parallel lines.			
<p>Year 3 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them recognise angles as a property of shape or a description of a turn identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle identify horizontal and vertical lines and pairs of perpendicular and parallel lines. 				
Year 3 – Statistics				
1	I can interpret data in a bar chart	I can interpret data in a pictogram	I can interpret data in tables	I can present data using bar charts
	I can present data using pictograms	I can present data using tables	To interpret and present data using bar charts, pictograms and tables	
2	I can solve one step problems using information presented in scaled bar charts	I can solve one step problems using information presented in pictograms	I can solve one step problems using information presented in tables	I can solve two step problems using information presented in scaled bar charts
	I can solve two step problems using information presented in pictograms	I can solve two step problems using information presented in tables	To solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.	
<p>Year 3 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> interpret and present data using bar charts, pictograms and tables solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables. 				

Year 4 Number & Place Value				
1	I can count in multiples of 6	I can count in multiples of 7	I can count in multiples of 9	I can count in multiples of 25
	I can count in multiples of 1000	To count in multiples of 6, 7, 9, 25 and 1000		
2	I can find 1000 more than a given number	I can find 1000 less than a given number	To find 1000 more or less than a given number	
3	I can count backwards to zero	I can count through zero using negative numbers	To count backwards through zero to include negative numbers	
4	I can recognise the place value of ones in a four-digit number	I can recognise the place value of tens in a four-digit number	I can recognise the place value of hundreds in a four-digit number	I can recognise the place value of thousands in a four-digit number
	To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)			
5	I can order numbers beyond 1000	I can compare numbers beyond 1000 using $<$ $>$ and $=$ signs	To order and compare numbers beyond 1000	
6	I can identify four-digit numbers using base ten	I can identify four-digit numbers using place value counters	I can identify four-digit numbers using part-whole model diagrams	I can identify four-digit numbers using arrow place value cards
	I can identify four-digit numbers using place value grids	I can represent four-digit numbers using base ten	I can represent four-digit numbers using place value counters	I can represent four-digit numbers using part-whole model diagrams
	I can represent four-digit numbers using arrow place value cards	I can represent four-digit numbers using place value grids	I can estimate four-digit numbers using base ten	I can estimate four-digit numbers using place value counters
	To identify, represent and estimate numbers using different representations			
7	I can round a two-digit number to the nearest 10	I can round a two-digit number to the nearest 100	I can round a three-digit number to the nearest 10	I can round a two-digit number to the nearest 100
	I can round a four-digit number to the nearest 10	I can round a four-digit number to the nearest 100	I can round a four-digit number to the nearest 1000	To round any number to the nearest 10, 100 or 1000
8	I can solve number problems involving counting in multiples of 6	I can solve number problems involving counting in multiples of 7	I can solve number problems involving counting in multiples of 9	I can solve number problems involving counting in multiples of 25
	I can solve number problems involving counting in multiples of 1000	I can solve practical problems involving counting in multiples of 6	I can solve practical problems involving counting in multiples of 7	I can solve practical problems involving counting in multiples of 9

	I can solve practical problems involving counting in multiples of 25	I can solve practical problems involving counting in multiples of 1000	I can solve number problems involving finding 1000 more than a given number	I can solve number problems involving finding 1000 less than a given number
	I can solve practical problems involving find 1000 more than a given number	I can solve practical problems involving finding 1000 less than a given number	I can solve number problems involving the place value of four-digit numbers	I can solve practical problems involving the place value of four-digit numbers
	I can solve number problems involving comparing numbers greater than 1000	I can solve practical problems involving comparing numbers greater than 1000	I can solve number problems involving ordering numbers greater than 1000	I can solve practical problems involving ordering numbers greater than 1000
	I can solve number problems using estimating	I can solve practical problems using estimating	I can solve number problems using different representations	I can solve practical problems using different representations
	I can solve number problems involving rounding to the nearest 10	I can solve practical problems involving rounding to the nearest 10	I can solve number problems involving rounding to the nearest 100	I can solve practical problems involving rounding to the nearest 100
	I can solve number problems involving rounding to the nearest 1000	I can solve practical problems involving rounding to the nearest 1000	To solve number and practical problems that involve all of the above and with increasingly large positive numbers	
9	I know the value of Roman numerals (I = 1)	I know the value of Roman numerals (V = 5)	I know the value of Roman numerals (X = 10)	I know the value of Roman numerals (L = 50)
	I know the value of Roman numerals (C = 100)	I can read numbers to 20 in Roman numerals	I can read numbers to 50 in Roman numerals	I can read numbers to 100 in Roman numerals
	I know the rules for using Roman numerals	I understand that the number system changed to place value to include the concept of zero	To read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.	
<p>Year 4 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number count backwards through zero to include negative numbers recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones) order and compare numbers beyond 1000 identify, represent and estimate numbers using different representations round any number to the nearest 10, 100 or 1000 solve number and practical problems that involve all of the above and with increasingly large positive numbers read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value. 				

Year 4 – Number – Addition & Subtractions				
1	I can add four-digit numbers using the column addition written method without exchanging	I can add four-digit numbers using the column addition written method with exchanging	I can subtract four-digit numbers using the column subtraction written method without exchanging	I can subtract four-digit numbers using the column subtraction written method with exchanging
	To add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate			
2	I can estimate the answer to an addition calculation	I can estimate the answer to a subtraction calculation	I can use the inverse operation to check the answers to calculations	To estimate and use inverse operations to check answers to a calculation
3	I can solve addition two-step problems in context using the appropriate methods	I can solve subtraction two-step problems in context using the appropriate methods	I can solve addition and subtraction two-step problems in context using the appropriate methods	To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
<p>Year 4 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate estimate and use inverse operations to check answers to a calculation solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why. 				
Year 4 – Number – Multiplication & Division				
1	I can recall my multiplication facts for the 2 x table	I can recall my multiplication facts for the 3 x table	I can recall my multiplication facts for the 4 x table	I can recall my multiplication facts for the 5 x table
	I can recall my multiplication facts for the 6 x table	I can recall my multiplication facts for the 7 x table	I can recall my multiplication facts for the 8 x table	I can recall my multiplication facts for the 9 x table
	I can recall my multiplication facts for the 10 x table	I can recall my multiplication facts for the 11 x table	I can recall my multiplication facts for the 12 x table	I can recall my division facts for the 2 x table
	I can recall my division facts for the 3 x table	I can recall my division facts for the 4 x table	I can recall my division facts for the 5 x table	I can recall my division facts for the 6 x table
	I can recall my division facts for the 7 x table	I can recall my division facts for the 8 x table	I can recall my division facts for the 9 x table	I can recall my division facts for the 10 x table
	I can recall my division facts for the 11 x table	I can recall my division facts for the 12 x table	To recall multiplication and division facts for multiplication tables up to 12×12	

2	I can multiply numbers by 0 mentally using place value	I can multiply numbers by 1 mentally using place value	I can multiply numbers by 0 mentally using known and derived facts	I can multiply numbers by 1 mentally using known and derived facts
	I can divide numbers by 1 mentally using place value	I can divide numbers by 1 mentally using known and derived facts	I can multiply three numbers together using known and derived facts	To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers
3	I can recognise factor pairs of a given number	I can use factor pairs of a given number to perform mental calculations	I understand that the commutative law means calculations can be performed in any order	To recognise and use factor pairs and commutativity in mental calculations
4	I can multiply a two-digit number by a one-digit number using the formal short multiplication written method	I can multiply a three-digit number by a one-digit number using the formal short multiplication written method	To multiply two-digit and three-digit numbers by a one-digit number using formal written layout	
5	I understand the rules of the distributive law	I can solve problems involving multiplying a two-digit number by a one-digit number using the distributive law	I can solve problems involving scaling using multiplication	I can solve problems involving scaling using division
	I can solve correspondence problems using multiplication	I can solve correspondence problems using division	To solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	
<p>Year 4 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> recall multiplication and division facts for multiplication tables up to 12×12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers recognise and use factor pairs and commutativity in mental calculations multiply two-digit and three-digit numbers by a one-digit number using formal written layout solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects 				
Year 4 Fractions (including decimals)				
1	I can recognise families of equivalent fractions in diagrams (e.g. $\frac{1}{2} = \frac{2}{4}; \frac{3}{6}; \frac{4}{8}$)	I can show families of equivalent fractions in diagrams (e.g. $\frac{1}{2} = \frac{2}{4}; \frac{3}{6}; \frac{4}{8}$)	To recognise and show, using diagrams, families of common equivalent fractions	

2	I can count up in hundredths	I can count down in hundredths	I can recognise that hundredths arise when dividing an object by 100	I can recognise that hundredths arise when dividing tenths by 10.
	To count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.			
3	I can solve problems involving calculating quantities using unit fractions	I can solve problems involving calculating quantities using non-unit fractions	I can divide quantities by unit fractions	I can divide quantities by non-unit fractions
	To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number			
4	I can add fractions with the same denominator	I can subtract fractions with the same denominator	To add and subtract fractions with the same denominator	
5	I can recognise decimal equivalents of any number of tenths	I can recognise decimal equivalents of any number of hundredths	I can write decimal equivalents of any number of tenths	I can write decimal equivalents of any number of hundredths
	To recognise and write decimal equivalents of any number of tenths or hundredths			
6	I can recognise the decimal equivalent to $\frac{1}{4}$	I can recognise the decimal equivalent to $\frac{1}{2}$	I can recognise the decimal equivalent to $\frac{3}{4}$	I can write the decimal equivalent to $\frac{1}{4}$
	I can write the decimal equivalent to $\frac{1}{2}$	I can write the decimal equivalent to $\frac{3}{4}$	To recognise and write decimal equivalents to $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$	
7	I can find the effect of dividing a one-digit number by 10	I can find the effect of dividing a one-digit number by 100	I can find the effect of dividing a two-digit number by 10	I can find the effect of dividing a two-digit number by 100
	I can divide a one-digit number by 10 and identify the value of the digits as tenths	I can divide a one-digit number by 100 and identify the digits as tenths and hundredths	I can divide a two-digit number by 10 and identify the digits as ones and tenths	I can divide a two-digit number by 100 and identify the digits as tenths and hundredths
	I can use a place value chart to identify the value of digits	I can use a place value chart to explain the effect of dividing by 10 and 100	To find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	
8	I can round decimals with one decimal place to the nearest whole number	I understand the rules for rounding numbers	To round decimals with one decimal place to the nearest whole number	
9	I can compare decimal numbers with one decimal place using the $>$, $<$ and $=$ signs	I can compare decimal numbers with two decimal places using the $>$, $<$ and $=$ signs	To compare numbers with the same number of decimal places up to two decimal places	

10	I can solve simple measure problems involving fractions	I can solve simple measure problems involving decimals to one decimal place	I can solve simple measure problems involving decimals to two decimal places	I can solve simple money problems involving fractions
	I can solve simple money problems involving decimals to one decimal place	I can solve simple money problems involving decimals to two decimal places	To solve simple measure and money problems involving fractions and decimals to two decimal places.	

Year 4 End Points

Pupils should be taught to:

1. recognise and show, using diagrams, families of common equivalent fractions
2. count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
3. solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number
4. add and subtract fractions with the same denominator
5. recognise and write decimal equivalents of any number of tenths or hundredths
6. recognise and write decimal equivalents to $\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$
7. find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths
8. round decimals with one decimal place to the nearest whole number
9. compare numbers with the same number of decimal places up to two decimal places
10. solve simple measure and money problems involving fractions and decimals to two decimal places.

Year 4 Measurement

1	I can convert km into m	I can convert m into cm	I can convert km into cm	I can convert cm into mm
	I can convert m into mm	I can convert hours into minutes	I can convert minutes into seconds	I can convert l into ml
	I can convert kg into g	To convert between different units of measure [for example, kilometre to metre; hour to minute]		
2	I know that perimeter is the distance around the outside of a shape	I can measure the perimeter of rectilinear shapes in cm	I can measure the perimeter of rectilinear shapes in m	I can calculate the perimeter of rectilinear shapes in cm
	I can calculate the perimeter of rectilinear shapes in m	I know that a rectilinear shape is a shape that has straight sides and right angles	To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	
3	I know that area means the size the surface takes up	I know that area is measured in units squared	I can find the area of rectilinear shapes by counting squares	To find the area of rectilinear shapes by counting squares
4	I can estimate length in m, cm and mm	I can estimate weight in kg and g	I can estimate capacity in l and ml	I can estimate time in hours, minutes and seconds

	I can estimate money in £ and p	I can compare lengths in m, cm and mm using the <, > and = signs	I can compare weight in kg and g using the <, > and = signs	I can compare capacity in l and ml using the <, > and = signs
	I can compare time in hours, minutes and seconds using the <, > and = signs	I can compare amounts of money in £ and p using the <, > and = signs	I can calculate length in m, cm and mm	I can calculate weight in kg and g
	I can calculate capacity in l and ml	I can calculate time in hours, minutes and seconds	I can calculate money in £ and p	To estimate, compare and calculate different measures, including money in pounds and pence
5	I can read time on an analogue clock	I can read time on a digital 12-hour clock	I can read time on a digital 24-hour clock	I can write time on an analogue clock
	I can write time on a digital 12-hour clock	I can write time of a digital 24-hour clock	I can convert time from an analogue clock to a digital 12-hour clock	I can convert time from an analogue clock to a digital 24-hour clock
	I can convert time from a digital 12-hour clock to a digital 24-hour clock	To read, write and convert time between analogue and digital 12- and 24-hour clocks		
6	I can solve problems involving converting from hours to minutes	I can solve problems involving converting minutes to hours	I can solve problems involving converting from minutes to seconds	I can solve problems involving converting seconds to minutes
	I can solve problems involving converting years to months	I can solve problems involving converting months to years	I can solve problems involving converting weeks to days	I can solve problems involving converting days to weeks
	To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days			
<p>Year 4 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> Convert between different units of measure [for example, kilometre to metre; hour to minute] measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting squares estimate, compare and calculate different measures, including money in pounds and pence read, write and convert time between analogue and digital 12- and 24-hour clocks solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days 				
Year 4 Geometry – Properties of Shape				
1	I can compare geometric 2D shapes based on their properties	I can compare geometric 2D shapes based on their sizes	I can compare quadrilaterals based on their properties	I can compare quadrilaterals based on their sizes
	I can compare triangles based on their properties	I can compare triangles based on their sizes	I can classify geometric 2D shapes based on their properties	I can classify geometric 2D shapes based on their sizes

	I can classify quadrilaterals based on their properties	I can classify quadrilaterals based on their sizes	I can classify triangles based on their properties	I can classify triangles based on their sizes
	To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes			
2	I can identify acute angles	I know that an acute angle is less than 90 degrees	I can identify obtuse angles	I know that an obtuse angle is more than 90 degrees but less than 180 degrees
	I can compare acute angles using the <, > and = signs	I can compare obtuse angles using the <, > and = signs	I can compare a mixture of acute and obtuse angles using the <, > and = signs	I can order acute angles
	I can order obtuse angles	I can order a mixture of acute and obtuse angles	I can identify a right angle	I can identify that two right angles make a straight line
	To identify acute and obtuse angles and compare and order angles up to two right angles by size			
3	I know what a line of symmetry is	I know that 2D shapes can have more than one line of symmetry	I can identify lines of symmetry in squares in different orientations	I can identify lines of symmetry in rectangles in different orientations
	I can identify lines of symmetry in quadrilaterals in different orientations	I can identify lines of symmetry in triangles in different orientations	I know that a circle has an infinite number of lines of symmetry	To identify lines of symmetry in 2-D shapes presented in different orientations
4	I can complete a simple pattern with respect to a specific line of symmetry	I can complete a simple shape with respect to a specific line of symmetry	To complete a simple symmetric figure with respect to a specific line of symmetry	
<p>Year 4 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes identify acute and obtuse angles and compare and order angles up to two right angles by size identify lines of symmetry in 2-D shapes presented in different orientations complete a simple symmetric figure with respect to a specific line of symmetry. 				
Year 4 – Geometry – Position & Direction				
1	I can identify the x axis on a coordinate grid	I can identify the y axis on a coordinate grid	I know that the x axis is named before the y axis when giving coordinates	I can name coordinates in the first quadrant
	I can give coordinates to locate a position on a coordinate grid	To describe positions on a 2-D grid as coordinates in the first quadrant		

2	I can give directions to move a point on the coordinate grid using positional language left, right, up, down	I know that the movement between positions is called translation	I can describe the movement of a point using the given unit to the left, right up and down	To describe movements between positions as translations of a given unit to the left/right and up/down
3	I can plot specified points on a coordinate grid	I can join the specified points to draw a complete polygon	To plot specified points and draw sides to complete a given polygon	

Year 4 End Points:

Pupils should be taught to:

1. describe positions on a 2-D grid as coordinates in the first quadrant
2. describe movements between positions as translations of a given unit to the left/right and up/down
3. plot specified points and draw sides to complete a given polygon.

Year 4 Statistics

1	I can interpret discrete data using a bar chart	I can present discrete data using a bar chart	I can interpret continuous data using a bar chart	I can present continuous data using a bar chart
	I can interpret discrete data using a line graph	I can present discrete data using a line graph	I can interpret continuous data using a line graph	I can present continuous data using line graph
	I can interpret discrete data using a Venn diagram	I can present discrete data using a Venn diagram	I can interpret continuous data using a Venn diagram	I can present continuous data using a Venn diagram
	I can interpret discrete data using a Carroll diagram	I can present discrete data using a Carroll diagram	I can interpret continuous data using a Carroll diagram	I can interpret continuous data using a Carroll diagram

To interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs

2	I can solve comparison problems using information presented in bar charts	I can solve comparison problems using information presented in pictograms	I can solve comparison problems using information presented in tables	I can solve comparison problems using information presented in line graphs
	I can solve sum problems using information presented in bar charts	I can solve sum problems using information presented in pictograms	I can solve sum problems using information presented in tables	I can solve sum problems using information presented in line graphs
	I can solve difference problems using information presented in bar charts	I can solve difference problems using information presented in pictograms	I can solve difference problems using information presented in tables	I can solve difference problems using information presented in line graphs

To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs

Year 4 End Points:

Pupils should be taught to:

1. interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
2. solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

Year 5 Number & Place Value				
1	I can read numbers to 10,000 in numerals	I can write numbers to 10,000 in numerals	I can read numbers to 100,000 in numerals	I can write numbers to 100,000 in numerals
	I can read numbers to 1,000,000 in numerals	I can write numbers to 1,000,000 in numerals	I can read numbers to 10,000 in words	I can write numbers to 10,000 in words
	I can read numbers to 100,000 in words	I can write numbers to 100,000 in words	I can read numbers to 1,000,000 in words	I can write numbers to 1,000,000 in words
	I can recognise the place value of ones in any number up to 1,000,000	I can recognise the place value of tens in any number up to 1,000,000	I can recognise the place value of hundreds in any number up to 1,000,000	I can recognise the place value of thousands in any number up to 1,000,000
	I can recognise the place value of ten thousands in any number up to 1,000,000	I can recognise the place value of hundred thousands in any number up to 1,000,000	I can recognise the place value of millions in any number up to 1,000,000	I can order numbers up to 10,000
	I can order numbers up to 100,000	I can order numbers up to 1,000,000	I can compare numbers up to 10,000 using $<$ $>$ and $=$ signs	I can compare numbers up to 100,000 using $<$ $>$ and $=$ signs
	I can compare numbers up to 1,000,000 using $<$ $>$ and $=$ signs	To read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit		
2	I can count forwards in steps of powers of 10 from any given number up to 10,000	I can count backwards in steps of powers of 10 from any given number up to 10,000	I can count forwards in steps of powers of 10 from any given number up to 100,000	I can count backwards in steps of powers of 10 from any given number up to 100,000
	I can count forwards in steps of powers of 10 from any given number up to 1,000,000	I can count backwards in steps of powers of 10 from any given number up to 1,000,000	To count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000	
3	I can interpret negative numbers in context	I can count forwards with positive and negative numbers through zero	I can count backwards with positive and negative numbers through zero	To interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
4	I can round a four-digit number to the nearest 10	I can round a four-digit number to the nearest 100	I can round a four-digit number to the nearest 1000	I can round a five-digit number to the nearest 10
	I can round a five-digit number to the nearest 100	I can round a five-digit number to the nearest 1000	I can round a five-digit number to the nearest 10,000	I can round a six-digit number to the nearest 10

	I can round a six-digit number to the nearest 100	I can round a six-digit number to the nearest 1000	I can round a six-digit number to the nearest 10,000	I can round a six-digit number to the nearest 100,000	
	I can round any number up to 1,000,000 to the nearest 10	I can round any number up to 1,000,000 to the nearest 100	I can round any number up to 1,000,000 to the nearest 1000	I can round any number up to 1,000,000 to the nearest 10,000	
	I can round any number up to 1,000,000 to the nearest 100,000	To round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000			
5	I can solve number problems involving reading numbers up to 1,000,000 in numerals	I can solve number problems involving reading numbers up to 1,000,000 in words	I can solve number problems involving writing numbers up to 1,000,000 in numerals	I can solve number problems involving writing numbers up to 1,000,000 in words	
	I can solve practical problems involving reading numbers up to 1,000,000 in numerals	I can solve practical problems involving reading numbers up to 1,000,000 in words	I can solve practical problems involving writing numbers up to 1,000,000 in numerals	I can solve practical problems involving writing numbers up to 1,000,000 in words	
	I can solve number problems involving comparing numbers up to 1,000,000 using $<$, $>$ and $=$ signs	I can solve practical problems involving comparing numbers up to 1,000,000 using $<$, $>$ and $=$ signs	I can solve number problems involving ordering numbers up to 1,000,000	I can solve practical problems involving ordering numbers up to 1,000,000	
	I can solve number problems involving determining the value of a digit up to 1,000,000	I can solve practical problems involving determining the value of a digit up to 1,000,000	I can solve number problems involving counting forwards in powers of 10	I can solve number problems involving counting backwards in powers of 10	
	I can solve practical problems involving counting forwards in powers of 10	I can solve practical problems involving counting backwards in powers of 10	I can solve number problems involving counting forwards with negative numbers through zero	I can solve number problems involving counting backwards with negative numbers through zero	
	I can solve practical problems involving counting forwards with negative numbers through zero	I can solve practical problems involving counting backwards with negative numbers through zero	I can solve number problems involving rounding the answer to the nearest 10	I can solve number problems involving rounding the answer to the nearest 100	
	I can solve number problems involving rounding the answer to the nearest 1000	I can solve number problems involving rounding the answer to the nearest 10,000	I can solve number problems involving rounding the answer to the nearest 1,000,000	I can solve practical problems involving rounding the answer to the nearest 10	
	I can solve practical problems involving rounding the answer to the nearest 100	I can solve practical problems involving rounding the answer to the nearest 1000	I can solve practical problems involving rounding the answer to the nearest 10,000	I can solve practical problems involving rounding the answer to the nearest 1,000,000	
	To solve number problems and practical problems that involve all of the above				

6	I know the value of Roman numerals (I = 1)	I know the value of Roman numerals (V = 5)	I know the value of Roman numerals (X = 10)	I know the value of Roman numerals (L = 50)
	I know the value of Roman numerals (C = 100)	I know the value of Roman numerals (D = 500)	I know the value of Roman numerals (M = 1000)	I can read numbers written in Roman numerals up to 500
	I can read numbers written in Roman numerals up to 1000	I can recognise years written in Roman numerals	I know the rules for using Roman Numerals	To read Roman numerals to 1000 (M) and recognise years written in Roman numerals

Year 5 End Points

Pupils should be taught to:

1. read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
2. count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
3. interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
4. round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000
5. solve number problems and practical problems that involve all of the above
6. read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

Year 5 Addition & Subtraction

1	I can add numbers with more than 4 digits using column addition without exchanging	I can add numbers with more than 4 digits using column addition with exchanging	I can subtract numbers with more than 4 digits using column subtraction without exchanging	I can subtract numbers with more than 4 digits using column subtraction with exchanging
	To add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)			
2	I can add numbers mentally using partitioning	I can add numbers mentally using known facts	I can add numbers mentally using doubles or near doubles	I can subtract numbers mentally using partitioning
	I can subtract numbers mentally using known facts	To add and subtract numbers mentally with increasingly large numbers		
3	I can use rounding to check answers to calculations	I can solve problems using rounding	To use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	
4	I can solve addition multi-step problems in contexts using column addition method	I can solve subtraction multi-step problems in contexts using column subtraction method	I can solve mixed addition and subtraction multi-step problems in contexts using column addition and column subtraction methods	To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why

Year 5 End Points:

Pupils should be taught to:

1. add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
2. add and subtract numbers mentally with increasingly large numbers
3. use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
4. solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

Year 5 Multiplication and Division

1	I know that multiples are an extension of the times table knowledge	I know that factors are numbers that can be divided into a number without leaving a remainder	I can identify multiples of a given number	I can identify the factors of a given number
	I can find all of the factor pairs of a given number using a factor tree	I can find common factors of two numbers	To identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers	
2	I know that a prime number only has 2 factors (1 and itself)	I know prime factors: a factor that is a prime number	I know that numbers which are non-prime are called composite numbers	To know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers
3	I can recall prime numbers up to 19	I can establish whether a number up to 100 is prime	To establish whether a number up to 100 is prime and recall prime numbers up to 19	
4	I can multiply two-digit number by a one-digit number using short multiplication method	I can multiply a three-digit number by a one-digit number using short multiplication method	I can multiply a four-digit number by a one-digit number using short multiplication method	I can multiply a two-digit number by a two-digit number using long multiplication method
	I can multiply a three-digit number by a two-digit number using long multiplication method	I can multiply a four-digit number by a two-digit number using long multiplication method	To multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers	
5	I can multiply numbers mentally using known facts	I can divide numbers mentally using known facts	To multiply and divide numbers mentally drawing upon known facts	
6	I can divide a two-digit number by one-digit number using short division method without remainders	I can divide a two-digit number by one-digit number using short division method with remainders	I can divide a three-digit number by one-digit number using short division method without remainders	I can divide a three-digit number by one-digit number using short division method with remainders
	I can divide a four-digit number by one-digit number using short division method without remainders	I can divide a four-digit number by one-digit number using short division method without remainders	To divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context	

7	I can multiply whole numbers by 10	I can multiply whole numbers by 100	I can multiply whole numbers by 1000	I can multiply decimal numbers by 10
	I can multiply decimal numbers by 100	I can multiply decimal numbers by 1000	I can divide whole numbers by 10	I can divide whole numbers by 100
	I can divide whole numbers by 1000	I can divide decimal numbers by 10	I can divide decimal numbers by 100	I can divide decimal numbers by 1000
	To multiply and divide whole numbers and those involving decimals by 10, 100 and 1000			
8	I can recognise square numbers	I can recognise cube numbers	I can use square numbers	I can use cube numbers
	I can use the notation for squared (2)	I can use the notation for cubed (3)	To recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)	
9	I can solve problems involving multiplication using my knowledge of factors	I can solve problems involving multiplication using my knowledge of multiples	I can solve problems involving multiplication using my knowledge of square numbers	I can solve problems involving multiplication using my knowledge of cube numbers
	I can solve problems involving division using my knowledge of factors	I can solve problems involving division using my knowledge of multiples	I can solve problems involving division using my knowledge of square numbers	I can solve problems involving division using my knowledge of cube numbers
	To solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes			
10	I can solve problems involving addition	I can solve problems involving subtraction	I can solve problems involving multiplication	I can solve problems involving division
	I can solve problems involving the four operations	I understand the meaning of the equals sign	To solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	
11	I can solve problems involving multiplication including scaling by simple fractions	I can solve problems involving division including scaling by simple fractions	I can solve problems involving multiplication including simple rates	I can solve problems involving division including simple rates
	To solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates			

Year 5 End Points:

Pupils should be taught to:

1. identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
2. know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers
3. establish whether a number up to 100 is prime and recall prime numbers up to 19
4. multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
5. multiply and divide numbers mentally drawing upon known facts
6. divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context
7. multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
8. recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)

9. solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes
10. solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
11. solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.

Year 5 Fractions (including decimals and percentages)

1	I can compare fractions whose denominators are all multiples of the same number using <, > and = signs	I can order fractions whose denominators are all multiples of the same number	To compare and order fractions whose denominators are all multiples of the same number	
2	I can identify equivalent fractions of a given fractions represented visually	I can name equivalent fractions of a given fractions represented visually	I can write equivalent fractions of a given fractions represented visually	I can identify equivalent fractions to tenths
	I can name equivalent fractions to tenths	I can write equivalent fractions to tenths	I can identify equivalent fractions to hundredths	I can name equivalent fractions to hundredths
	I can write equivalent fractions to hundredths		To identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths	
3	I can recognise mixed number fractions	I can recognise improper fractions	I can convert mixed number fractions into improper fractions	I can convert improper fractions into mixed number fractions
	I can add fractions with the same denominator and convert an answer of an improper fraction into a mixed number fraction	To recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $2/5 + 4/5 = 6/5 = 1 \frac{1}{5}$]		
4	I can add fractions with the same denominator	I can subtract fractions with the same denominator	I can add fractions with denominators that are multiples of the same number	I can subtract fractions with denominators that are multiples of the same number
	To add and subtract fractions with the same denominator and denominators that are multiples of the same number			
5	I can multiply proper fractions by whole numbers using diagrams to support	I can multiply mixed number fractions by whole numbers using diagrams to support	To multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	
6	I can read decimal numbers as fractions	I can write decimal numbers as fractions	To read and write decimal numbers as fractions [for example, $0.71 = 71/100$]	

7	I can recognise thousandths	I can use thousandths	I can relate thousandths to tenths	I can relate thousandths to hundredths
	I can relate thousandths to decimal equivalents	To recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents		
8	I can round decimal numbers with two decimal places to the nearest whole number	I can round decimal numbers with two decimal places to one decimal place	To round decimals with two decimal places to the nearest whole number and to one decimal place	
9	I can read numbers with three decimal places	I can write numbers with three decimal places	I can order numbers with three decimal places	I can compare numbers with three decimal places using <, > and = signs
	I can order numbers with up to three decimal places	I can compare numbers with up to three decimal places using <, > and = signs	To read, write, order and compare numbers with up to three decimal places	
10	I can solve problems with decimal numbers up to three decimal places	To solve problems involving number up to three decimal places		
11	I can recognise the percent symbol (%)	I know that percent means 'number of parts per one hundred'	I can write percentages as a fraction with a denominator of 100	I can write percentages as a decimal
	To recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal			
12	I can solve problems using knowledge of percentage equivalences of $\frac{1}{2}$	I can solve problems using knowledge of percentage equivalences of $\frac{1}{4}$	I can solve problems using knowledge of percentage equivalences of $\frac{1}{5}$	I can solve problems using knowledge of percentage equivalences of $\frac{2}{5}$
	I can solve problems using knowledge of percentage equivalences of $\frac{4}{5}$	I can solve problems using knowledge of percentage equivalences of fractions with a denominator of 10	I can solve problems using knowledge of percentage equivalences of fractions with a denominator of 25	I can solve problems using knowledge of decimal equivalences of $\frac{1}{2}$
	I can solve problems using knowledge of decimal equivalences of $\frac{1}{4}$	I can solve problems using knowledge of decimal equivalences of $\frac{1}{5}$	I can solve problems using knowledge of decimal equivalences of $\frac{2}{5}$	I can solve problems using knowledge of decimal equivalences of $\frac{4}{5}$

	I can solve problems using knowledge of decimal equivalences of fractions with a denominator of 10	I can solve problems using knowledge of decimal equivalences of fractions with a denominator of 25	To solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.
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Year 5 End Points:			
Pupils should be taught to:			
<ol style="list-style-type: none"> compare and order fractions whose denominators are all multiples of the same number identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$] add and subtract fractions with the same denominator and denominators that are multiples of the same number multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$] recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents round decimals with two decimal places to the nearest whole number and to one decimal place read, write, order and compare numbers with up to three decimal places solve problems involving number up to three decimal places recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25. 			

Year 5 Measurement				
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1	I can convert km into m	I can convert m into cm	I can convert cm into mm	I can convert m into mm
	I can convert kg into g	I can convert l into ml	To convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)	
2	I know what metric units of measure are (e.g. m, cm, mm)	I know what imperial units of measure are (e.g. inches, pounds, pints)	I know approximate equivalences between metric and imperial units	I can use approximate equivalences between metric and imperial units
	To understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints			
3	I know that perimeter is the distance around the outside of a shape	I know that a composite shape is a shape made up of two or more geometric shapes	I know that a rectilinear shape is a shape that has straight sides and right angles	I can measure the perimeter of composite rectilinear shapes in cm and m
	I can calculate the perimeter of composite rectilinear shapes in cm and m	To measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres		

4	I know that area is the surface covered by a 2D shape	I know area is measured using units squared (2)	I can calculate the area of rectangles including squares	I can compare the area of rectangles including squares using $<$ $>$ and $=$ signs
	I can record the area of rectangles including squares using the standard units cm^2 and m^2	I can estimate the area of irregular shapes	To calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes	
5	I can estimate volume using 1cm^3 blocks	I can estimate capacity using water	To estimate volume [for example, using 1cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]	
6	I can solve problems converting minutes in to seconds and vice versa	I can solve problems converting hours in to minutes and vice versa	I can solve problems converting days in to hours and vice versa	I can solve problems converting weeks in to days and vice versa
	I can solve problems converting years in to months and vice versa	To solve problems involving converting between units of time		
7	I can solve addition problems involving length	I can solve addition problems involving mass	I can solve addition problems involving volume	I can solve addition problems involving money
	I can solve subtraction problems involving length	I can solve subtraction problems involving mass	I can solve subtraction problems involving volume	I can solve subtraction problems involving money
	I can solve multiplication problems involving length	I can solve multiplication problems involving mass	I can solve multiplication problems involving volume	I can solve multiplication problems involving money
	I can solve division problems involving length	I can solve division problems involving mass	I can solve division problems involving volume	I can solve division problems involving money
	I can solve addition problems involving scaling	I can solve subtraction problems involving scaling	I can solve multiplication problems involving scaling	I can solve division problems involving scaling
	To use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling			
<p>Year 5 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes estimate volume [for example, using 1cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water] solve problems involving converting between units of time 				

7. use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.

Year 5 Geometry – Properties of shape

1	I can identify cubes from 2D representations	I can identify cuboids from 2D representations	I can identify cones from 2D representations	I can identify spheres from 2D representations
	I can identify cylinders from 2D representations	I can identify prisms from 2D representations	I can identify pyramids from 2D representations	To identify 3-D shapes, including cubes and other cuboids, from 2-D representation
2	I know angles are measured in degrees ($^{\circ}$)	I know that acute angles are less than 90°	I know that obtuse angles are more than 90° and less than 180°	I know that reflex angles are more than 180°
	I can estimate the degrees of acute angles	I can estimate the degrees of obtuse angles	I can estimate the degrees of reflex angles	I can compare acute angles using $<$, $>$ and $=$ signs
	I can compare obtuse angles using $<$, $>$ and $=$ signs	I can compare reflex angles using $<$, $>$ and $=$ signs	I can compare a mix of acute, reflex and obtuse angles using $<$, $>$ and $=$ signs	To know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
3	I know how to use a protractor to measure angles in degrees ($^{\circ}$)	I can use a protractor to measure acute angles in degrees ($^{\circ}$)	I can use a protractor to measure obtuse angles in degrees ($^{\circ}$)	I can use a protractor to measure reflex angles in degrees ($^{\circ}$)
	I can use a protractor to draw acute angles in degrees ($^{\circ}$)	I can use a protractor to draw obtuse angles in degrees ($^{\circ}$)	I can use a protractor to draw reflex angles in degrees ($^{\circ}$)	To draw given angles, and measure them in degrees ($^{\circ}$)
4	I know that angles around a point are a whole turn	I know that a whole turn is 360° degrees	I know that angles on a straight line are equal to a half turn	I know that a straight line angle is 180°
	I know that a right angle is a quarter turn	I know that a right angle is 90°	I can identify angles which are multiples of 90° ($\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$ turns)	To identify: -angles at a point and one whole turn (total 360°) -angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) -other multiples of 90°
5	I can name the properties of rectangles	I can use the properties of rectangles to deduce related facts	I can use the properties of rectangles to find missing lengths	I can use the properties of rectangles to find missing angles
	To use the properties of rectangles to deduce related facts and find missing lengths and angles			

6	I know what a regular polygon is	I know what an irregular polygon is	I can distinguish between a regular and irregular polygon based on reasoning about equal sides	I can distinguish between a regular and irregular polygon based on reasoning about equal angles
	To distinguish between regular and irregular polygons based on reasoning about equal sides and angles			

Year 5 End Points:

Pupils should be taught to:

- identify 3-D shapes, including cubes and other cuboids, from 2-D representations
- know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles
- draw given angles, and measure them in degrees (o)
- identify:
 - angles at a point and one whole turn (total 360o)
 - angles at a point on a straight line and 2 1 a turn (total 180o)
 - other multiples of 90o
- use the properties of rectangles to deduce related facts and find missing lengths and angles
- distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

Year 5 – Geometry – Position & Direction

1	I know that the movement between positions is called translation	I know that when the shape is 'flipped' it is called reflection	I can identify the position of a shape on a coordinate grid following reflection	I can identify the position of a shape on a coordinate grid following translation
	I can describe the position of a shape on a coordinate grid following reflection	I can describe the position of a shape on a coordinate grid following translation	I can represent the position of a shape on a coordinate grid following reflection	I can represent the position of a shape on a coordinate grid following translation
	I know that when a shape is translated, it does not change in size.	I know that when a shape is reflected, it does not change in size.	To identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.	

Year 5 End Points:

Pupils should be taught to:

- identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.

Year 5 Statistics

1	I can solve comparison problems using information presented in a line graph	I can solve sum problems using information presented in a line graph	I can solve difference problems using information presented in a line graph	To solve comparison, sum and difference problems using information presented in a line graph
2	I can complete information presented in tables	I can read information presented in tables	I can interpret information presented in tables	I can complete information presented in timetables

	I can read information presented in timetables	I can interpret information presented in timetables	To complete, read and interpret information in tables, including timetables
Year 5 End Points: Pupils should be taught to: <ol style="list-style-type: none">1. solve comparison, sum and difference problems using information presented in a line graph2. complete, read and interpret information in tables, including timetables			

Year 6 Number & Place Value				
1	I can read numbers up to 1,000,000 in numerals	I can read numbers up to 1,000,000 in words	I can write numbers up to 1,000,000 in numerals	I can write numbers up to 1,000,000 in words
	I can compare numbers up to 1,000,000 using the <, > and = signs	I can order numbers up to 1,000,000	I can read numbers up to 5,000,000 in numerals	I can read numbers up to 5,000,000 in words
	I can write numbers up to 5,000,000 in numerals	I can write numbers up to 5,000,000 in words	I can compare numbers up to 5,000,000 using the <, > and = signs	I can order numbers up to 5,000,000
	I can read numbers up to 10,000,000 in numerals	I can read numbers up to 10,000,000 in words	I can write numbers up to 10,000,000 in numerals	I can write numbers up to 10,000,000 in words
	I can compare numbers up to 10,000,000 using the <, > and = signs	I can order numbers up to 10,000,000	I can determine the value of the ones in numbers up to 10,000,000	I can determine the value of the tens in numbers up to 10,000,000
	I can determine the value of the hundreds in numbers up to 10,000,000	I can determine the value of the thousands in numbers up to 10,000,000	I can determine the value of the ten thousands in numbers up to 10,000,000	I can determine the value of the hundred thousands in numbers up to 10,000,000
	I can determine the value of the millions in numbers up to 10,000,000	I can determine the value of the ten millions in numbers up to 10,000,000	To read, write, order and compare numbers up to 10,000,000 and determine the value of each digit	
2	I can round a number up to 1,000,000 to the nearest 10	I can round a number up to 1,000,000 to the nearest 100	I can round a number up to 1,000,000 to the nearest 1000	I can round a number up to 1,000,000 to the nearest 10,000
	I can round a number up to 1,000,000 to the nearest 100,000	I can round a number up to 10,000,000 to the nearest 10	I can round a number up to 10,000,000 to the nearest 100	I can round a number up to 10,000,000 to the nearest 1000
	I can round a number up to 10,000,000 to the nearest 10,000	I can round a number up to 10,000,000 to the nearest 100,000	I can round a number up to 10,000,000 to the nearest 1,000,000	I can round a number up to 10,000,000 to the nearest 10,000,000
	To round any whole number to a required degree of accuracy			
3.	I can use negative numbers in context (e.g. reading a thermometer)	I can calculate intervals of numbers across zero	To use negative numbers in context, and calculate intervals across zero	
4	I can solve number problems involving reading numbers up to 10,000,000 in numerals	I can solve number problems involving reading numbers up to 10,000,000 in words	I can solve number problems involving writing numbers up to 10,000,000 in numerals	I can solve number problems involving writing numbers up to 10,000,000 in words

	I can solve practical problems involving reading numbers up to 10,000,000 in numerals	I can solve practical problems involving reading numbers up to 10,000,000 in words	I can solve practical problems involving writing numbers up to 10,000,000 in numerals	I can solve practical problems involving writing numbers up to 10,000,000 in words
	I can solve number problems involving ordering numbers up to 10,000,000	I can solve practical problems involving ordering numbers up to 10,000,000	I can solve number problems involving comparing numbers up to 10,000,000 using $<$, $>$ and $=$ signs	I can solve practical problems involving comparing numbers up to 10,000,000 using $<$, $>$ and $=$ signs
	I can solve number problems involving rounding numbers up to 10,000,000 to the nearest ten	I can solve number problems involving rounding numbers up to 10,000,000 to the nearest hundred	I can solve number problems involving rounding numbers up to 10,000,000 to the nearest thousand	I can solve number problems involving rounding numbers up to 10,000,000 to the nearest ten thousand
	I can solve number problems involving rounding numbers up to 10,000,000 to the nearest hundred thousand	I can solve number problems involving rounding numbers up to 10,000,000 to the nearest million	I can solve number problems involving rounding numbers up to 10,000,000 to the nearest ten million	I can solve practical problems involving rounding numbers up to 10,000,000 to the nearest ten
	I can solve practical problems involving rounding numbers up to 10,000,000 to the nearest hundred	I can solve practical problems involving rounding numbers up to 10,000,000 to the nearest thousand	I can solve practical problems involving rounding numbers up to 10,000,000 to the nearest ten thousand	I can solve practical problems involving rounding numbers up to 10,000,000 to the nearest hundred thousand
	I can solve practical problems involving rounding numbers up to 10,000,000 to the nearest million	I can solve practical problems involving rounding numbers up to 10,000,000 to the nearest ten million	I can solve number problems involving negative numbers in context	I can solve practical problems involving negative numbers in context
	I can solve number problems involving calculating intervals across zero	I can solve practical problems involving calculating intervals across zero	To solve number and practical problems that involve all of the above	
<p>Year 6 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> 1. read, write, order and compare numbers up to 10 000 000 and determine the value of each digit 2. round any whole number to a required degree of accuracy 3. use negative numbers in context, and calculate intervals across zero 4. solve number and practical problems that involve all of the above. 				
Year 6 Addition, Subtraction, Multiplication & Division				
1	I can multiply a two-digit number by a two-digit whole number using the formal written method of long multiplication	I can multiply a three-digit number by a two-digit whole number using the formal written method of long multiplication	I can multiply a four-digit number by a two-digit whole number using the formal written method of long multiplication	To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication

2	I can divide a two-digit number by a two-digit whole number using the formal written method of long division	I can divide a three-digit number by a two-digit whole number using the formal written method of long division	I can divide a four-digit number by a two-digit whole number using the formal written method of long division	I can divide a two-digit number by a two-digit whole number using the formal written method of long division and interpret remainders as whole numbers by rounding
	I can divide a three-digit number by a two-digit whole number using the formal written method of long division and interpret remainders as whole numbers by rounding	I can divide a four-digit number by a two-digit whole number using the formal written method of long division and interpret remainders as whole numbers by rounding	I can divide a two-digit number by a two-digit whole number using the formal written method of long division and interpret remainders as fractions	I can divide a three-digit number by a two-digit whole number using the formal written method of long division and interpret remainders as fractions
	I can divide a four-digit number by a two-digit whole number using the formal written method of long division and interpret remainders as fractions	To divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context		
3	I can divide a two-digit number by a two-digit whole number using the formal written method of short division	To divide a three-digit number by a two-digit whole number using the formal written method of short division	To divide a four-digit number by a two-digit whole number using the formal written method of short division	To divide a two-digit number by a two-digit whole number using the formal written method of short division and interpret remainders as whole numbers by rounding
	To divide a three-digit number by a two-digit whole number using the formal written method of short division and interpret remainders as whole numbers by rounding	To divide a four-digit number by a two-digit whole number using the formal written method of short division and interpret remainders as whole numbers by rounding	To divide a two-digit number by a two-digit whole number using the formal written method of short division and interpret remainders as fractions	To divide a three-digit number by a two-digit whole number using the formal written method of short division and interpret remainders as fractions
	To divide a four-digit number by a two-digit whole number using the formal written method of short division and interpret remainders as fractions	To divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context		
4	I can perform mental calculations for addition with large numbers	I can perform mental calculations for subtraction with large numbers	I can perform mental calculations for multiplication with large numbers	I can perform mental calculations for division with large numbers
	I can perform mental calculations with mixed operations and large numbers	To perform mental calculations, including with mixed operations and large numbers		

5	I can identify common factors of a given number using a factor tree	I can identify common multiples of a given number	I can identify prime numbers	To identify common factors, common multiples and prime numbers
6	I know the order of operations using BODMAS / BIDMAS	I can use the order of operations to carry out calculations involving the four operations	To use their knowledge of the order of operations to carry out calculations involving the four operations	
7	I can solve addition multi-step problems in contexts	I can solve subtraction multi-step problems in contexts	I can solve addition and subtraction multi-step problems in contexts	To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
8	I can solve problems involving addition	I can solve problems involving subtraction	I can solve problems involving multiplication	I can solve problems involving division
	To solve problems involving addition, subtraction, multiplication and division			
9	I can use estimation to check answers to calculations	I can use estimation to check answers to calculations in context of a problem	I can use estimation to check answers to calculations to an appropriate degree of accuracy	To use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy
<p>Year 6 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context perform mental calculations, including with mixed operations and large numbers identify common factors, common multiples and prime numbers use their knowledge of the order of operations to carry out calculations involving the four operations solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why solve problems involving addition, subtraction, multiplication and division use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. 				
Year 6 Fractions (including decimals and percentages)				
1	I can use common factors to simplify fractions	I can use common multiples to express fractions in the same denomination	To use common factors to simplify fractions; use common multiples to express fractions in the same denomination	

2	I can compare fractions using <, > and = signs	I can compare fractions >1 using <, > and = signs	I can order fractions	I can order fractions >1
	To compare and order fractions, including fractions > 1			
3	I can add fractions with different denominators	I can subtract fractions with different denominators	I can add mixed number fractions	I can subtract mixed number fractions
	I can add fractions using the concept of equivalent fractions	I can subtract fractions using the concept of equivalent fractions	To add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions	
4	I can multiply simple pairs of proper fractions	I can simplify an answer in to its simplest form	To multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $1/4 \times 1/2 = 1/8$]	
5	I can divide proper fractions by whole numbers	To divide proper fractions by whole numbers [for example, $1/3 \div 2 = 1/6$]		
6	I can associate a fraction with division	I can calculate a decimal fraction	To associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $3/8$]	
7	I can identify the value of ones in a number to three decimal places	I can identify the value of tenths in a number to three decimal places	I can identify the value of hundredths in a number to three decimal places	I can identify the value of thousandths in a number to three decimal places
	I can multiply numbers by 10 giving answers up to three decimal places	I can multiply numbers by 100 giving answers up to three decimal places	I can multiply numbers by 1000 giving answers up to three decimal places	I can divide numbers by 10 giving answers up to three decimal places
	I can divide numbers by 100 giving answers up to three decimal places	I can divide numbers by 1000 giving answers up to three decimal places	To identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places	
8	I can multiply one-digit numbers with one decimal place by whole numbers	I can multiply one-digit numbers with two decimal places by whole numbers	To multiply one-digit numbers with up to two decimal places by whole numbers	
9	I can use the formal short division written method for answers with up to two decimal places	I can use the formal long division written method for answers with up to two decimal places	To use written division methods in cases where the answer has up to two decimal places	
10	I can solve problems which require answers to be rounded to the nearest whole number	I can solve problems which require answers to be rounded to a specified degree of accuracy	To solve problems which require answers to be rounded to specified degrees of accuracy	

11	I can recall equivalences between simple fractions, decimals and percentages	I can use equivalences between simple fractions, decimals and percentages	To recall and use equivalences between simple fractions, decimals and percentages, including in different contexts	
<p>Year 6 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> use common factors to simplify fractions; use common multiples to express fractions in the same denomination compare and order fractions, including fractions > 1 add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] divide proper fractions by whole numbers [for example, $\frac{1}{3} \div 2 = \frac{1}{6}$] associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, $\frac{3}{8}$] identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places multiply one-digit numbers with up to two decimal places by whole numbers use written division methods in cases where the answer has up to two decimal places solve problems which require answers to be rounded to specified degrees of accuracy recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. 				
Year 6 Ratio & Proportion				
1	I can solve problems involving the relative sizes of two quantities	I can solve missing number problems by using multiplication facts	I can solve missing number problems by using division facts	To solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts
2	I can solve problems involving calculating percentages	I can solve problem involving using percentages for comparison	To solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison	
3	I can solve problems involving similar shapes where the scale factor is known	I can solve problems involving similar shapes where the scale factor can be found	To solve problems involving similar shapes where the scale factor is known or can be found	
4	I can solve problems involving sharing unequal amounts	I can solve problems involving grouping unequal amounts	I can solve problems involving unequal amounts using fractions	I can solve problems involving unequal amounts using multiples
	To solve problems involving unequal sharing and grouping using knowledge of fractions and multiples			
<p>Year 6 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts solve problems involving the calculation of percentages [for example, of measures, and such as 15% of 360] and the use of percentages for comparison 				

3. solve problems involving similar shapes where the scale factor is known or can be found
4. solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.

Year 6 Algebra

1	I can use simple formulae	To use simple formulae	
2	I can generate linear number sequences	I can describe linear number sequences	To generate and describe linear number sequences
3	I can express missing number problems algebraically	To express missing number problems algebraically	
4	I can find a missing number to satisfy an equation	I can find pairs of numbers that satisfy an equation with two unknowns	To find pairs of numbers that satisfy an equation with two unknowns
5	I can list all possibilities for combinations of two variables	To enumerate possibilities of combinations of two variables	

Year 6 End Points:

Pupils should be taught to:

1. use simple formulae
2. generate and describe linear number sequences
3. express missing number problems algebraically
4. find pairs of numbers that satisfy an equation with two unknowns
5. enumerate possibilities of combinations of two variables.

Year 6 Measurement

1	I can solve problems involving the calculation of units of measure for length	I can solve problems involving the calculation of units of measure for mass	I can solve problems involving the calculation of units of measure for capacity	I can solve problems involving the calculation of units of measure for volume
	I can solve problems involving the calculation of units of measure for money	I can solve problems involving the conversion of units of measure for length	I can solve problems involving the conversion of units of measure for mass	I can solve problems involving the conversion of units of measure for capacity
	I can solve problems involving the conversion of units of measure for volume	I can solve problems involving the conversion of units of measure for money	To solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate	
2	I can use standard units of measure for length (mm, cm, m, km)	I can use standard units of measure for mass (g, kg)	I can use standard units of measure for volume (l, ml)	I can use standard units of measure for time (seconds, minutes, hours)
	I can read standard units of measure for length	I can read standard units of measure for mass	I can read standard units of measure for volume	I can read standard units of measure for time

	I can write standard units of measure for length	I can write standard units of measure for mass	I can write standard units of measure for volume	I can write standard units of measure for time
	I can convert standard units of measure for length	I can convert standard units of measure for mass	I can convert standard units of measure for volume	I can convert standard units of measure for time
	To use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places			
3	I can convert miles in to kilometres	I can convert kilometres in to miles	To convert between miles and kilometres	
4	I know that shapes with the same area can have different perimeters	I know that shapes with the same perimeter can have different areas	I know when to use a formula for area of shapes	I know when to use a formula for volume of shapes
	To recognise that shapes with the same areas can have different perimeters and vice versa recognise when it is possible to use formulae for area and volume of shapes			
5	I can calculate the area of parallelograms	I can calculate the area of triangles	To calculate the area of parallelograms and triangles	
6	I can calculate the volume of cubes using standard units in m^3 and cm^3	I can estimate the volume of cubes using standard units in m^3 and cm^3	I can compare the volume of cubes using standard units in m^3 and cm^3	I can calculate the volume of cuboids using standard units in m^3 and cm^3
	I can estimate the volume of cuboids using standard units in m^3 and cm^3	I can compare the volume of cuboids using standard units in m^3 and cm^3	To calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]	
<p>Year 6 End Points:</p> <p>Pupils should be taught to:</p> <ol style="list-style-type: none"> 1. solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate 2. use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places 3. convert between miles and kilometres 4. recognise that shapes with the same areas can have different perimeters and vice versa recognise when it is possible to use formulae for area and volume of shapes 5. calculate the area of parallelograms and triangles 6. calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units [for example, mm^3 and km^3]. 				
Year 6 – Geometry – Properties of shape				
1	I can draw squares using given dimensions	I can draw squares using given angles	I can draw rectangles using given dimensions	I can draw rectangles using given angles
	I can draw quadrilaterals using given dimensions	I can draw quadrilaterals using given angles	I can draw triangles using given dimensions	I can draw triangles using given angles

	I can draw pentagons using given dimensions	I can draw pentagons using given angles	I can draw hexagons using given dimensions	I can draw hexagons using given angles
	I can draw octagons using given dimensions	I can draw octagons using given angles	To draw 2-D shapes using given dimensions and angles	
2	I can recognise cubes	I can recognise cuboids	I can recognise cones	I can recognise spheres
	I can recognise prisms	I can recognise pyramids	I can recognise cylinders	I can describe cubes
	I can describe cuboids	I can describe cones	I can describe spheres	I can describe prisms
	I can describe pyramids	I can describe cylinder	I can build cubes	I can build cuboids
	I can build cones	I can build spheres	I can build prisms	I can build pyramids
	I can build cylinders	I can recognise the net of a cube	I can recognise the net of a cuboid	I can recognise the net of a cone
	I can recognise the net of a sphere	I can recognise the net of a prism	I can recognise the net of a pyramid	I can recognise the net of a cylinder
To recognise, describe and build simple 3-D shapes, including making nets				
3	I can compare geometric shapes based on their properties	I can compare geometric shapes based on sizes	I can classify geometric shapes based on their properties	I can classify geometric shapes based on sizes
	I can find unknown angles in triangles	I can find unknown angles in quadrilaterals	I can find unknown angles in regular pentagons	I can find unknown angles in regular hexagons
	I can find unknown angles in regular octagons	I can find unknown angles in regular decagons	To compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons	
4	I can illustrate the radius of a circle	I can illustrate the diameter of a circle	I can illustrate the circumference of a circle	I can name the radius of a circle
	I can name the diameter of a circle	I can name the circumference of a circle	I know that the diameter is twice the radius	To illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
5	I can recognise angles where they meet at a point	I can recognise angles where they meet on a straight line	I can recognise angles where they are vertically opposite	I can find missing angles
	To recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles			

Year 6 End Points:

Pupils should be taught to:

1. draw 2-D shapes using given dimensions and angles
2. recognise, describe and build simple 3-D shapes, including making nets
3. compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
4. illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
5. recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.

Year 6 Geometry - Position & Direction

1	I can describe positions on a full coordinate grid in the first quadrant	I can describe positions on a full coordinate grid in the second quadrant	I can describe positions on a full coordinate grid in the third quadrant	I can describe positions on a full coordinate grid in the fourth quadrant
	I can name coordinates using the X axis and Y axis	I can name coordinates using the X axis and Y axis with negative numbers	To describe positions on the full coordinate grid (all four quadrants)	
2	I can draw a simple shape on the coordinate plane	I can draw a simple shape on the coordinate plane and reflect it along the X axis	I can draw a simple shape on the coordinate plane and reflect it along the Y axis	I can draw a simple shape on the coordinate plane and translate it
	To draw and translate simple shapes on the coordinate plane, and reflect them in the axes			

Year 6 End Points:

Pupils should be taught to:

1. describe positions on the full coordinate grid (all four quadrants)
2. draw and translate simple shapes on the coordinate plane, and reflect them in the axes.

Year 6 Statistics

1	I can interpret pie charts	I can construct pie charts	I can interpret line graphs	I can construct line graphs
	I can use a pie chart to solve problems	I can use a line graph to solve problems	To interpret and construct pie charts and line graphs and use these to solve problems	
2	I know that mean means the average	I can calculate the mean (average) of a set of data	I can interpret the mean (average) of a set of data	To calculate and interpret the mean as an average

Year 6 End Points:

Pupils should be taught to:

1. interpret and construct pie charts and line graphs and use these to solve problems
2. calculate and interpret the mean as an average.