Maths Objectives

The maths objectives have been split into 2 areas

- ***Learning objective planning document***

- ***I can statements***

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.

Year Group	Total number of objectives	Approximate number of objectives to be covered per term
Year 1	56	19
Year 2	79	27
Year 3	73	25
Year 4	68	23
Year 5	73	25
Year 6	85	29

Non negotiables

Each year group has a range of non negotiables. These are key objectives that pupils must achieve within that year group. Within the maths objectives booklet, they are highlighted in blue. These objectives should be taught and reinforced continually throughout the year.

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 2Build a Profile.

It is important to note that 2Build a Profile 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*

At the end of the Autumn term, if a year 1 pupil has successfully completed 14 or more objectives, they are working at a National Curriculum grade of 1-. In the Spring term, if that pupils has successfully completed more than 28 objectives, they will have a National Curriculum Grade of 1=. At the end of the summer term, if they have more than 41 objectives, they will have a National Curriculum Grade of 1+. At each of these stages this pupil is working at their age related expectation and is 'on track'.

If a pupil in the Autumn term has successfully completed less than 14 objectives, they will be on at least a R+. If in the spring term this pupil has more than 14, but less than 28 objectives, they will be on a 1- and approximately working one term behind the age related expectation. If this pupil is still between 14 and 28 objectives in the summer term, they will still be on a 1- and two terms behind their age related expectation. If they have more than 28 objectives, but less than 41, they will be on a 1= and one term behind their age related expectation.

Year Groups	Objectives needed to work at age related expectation		
	Autumn	Spring	Summer
Year 1	>15	>31	>45
National Curriculum Grade	1-	1=	1+
Year 2	>22	>44	>64
National Curriculum Grade	2-	2=	2+
Year 3	>20	>40	>59
National Curriculum Grade	3-	3=	3+
Year 4	>19	>39	>55
National Curriculum Grade	4-	4=	4+
Year 5	>20	>40	>59
National Curriculum Grade	5-	5=	5+
Year 6	>24	>47	>68
National Curriculum Grade	6-	6=	6+

Year 1 Number Objectives

I can read and write numbers from 1 to 20 in digits	I can read and write numbers from 1 to 20 in words (NN)	I can reliably count at least 20 objects (NN)	I can use a number line to identify numbers
I can represent numbers using objects	I can use mathematical vocabulary: equal to, more than, less than, fewer, most, least.	I can add 1 and 2 digit numbers to 20 (NN)	I can subtract 1 and 2 digit numbers to 20 (NN)
I know the mathematical signs (+, -, =)	I know one more and one less (0-30) (NN)	I can read numbers to 100	I can write numbers to 100
I can count in multiples of 2	I can count in multiples of 5	I can count in multiples of 10	I can count on and back in 1s, 2s, 5s and 10s
I can double to at least 10	I know my number bonds to 20 (NN)	I can subtract using my number bonds (NN)	I can solve one step addition problems using concrete or pictorial representations
I can solve subtraction problems using concrete or pictorial representations	I can solve multiplication problems using concrete or pictorial representations (with support)	I can solve division problems using concrete or pictorial representations (with support)	I can count forwards and backwards from any number
I can recognise a half	I can recognise a quarter	I can solve a missing number problem (NN)	

Year 1 Number and Place Value

I can count to 100, forwards beginning with 0 or 1	I can count to 100, forwards from any given number	I can count to 100, backwards beginning with 0 or 1	I can count to 100, backwards from any given number

Year 1 Measurement Objectives

I can use words to order events: before and after, next, first, today, yesterday, tomorrow, morning afternoon, evening	I know the names of the days of the week (NN)	I know the names of the months of the year (NN)	I can measure length
I can measure height	I can compare measurements: longer/shorter,	I can describe measurements: full/empty,	I can solve problems involving measurements

	double/half	more/less, half/quarter	
I know the value of coins	I know the value of notes	I can measure weight	I can measure capacity
I can measure volume	I know O'clock and half past	I can draw the hands on a clock	I can measure time and begin to record time
I can compare time: quicker, slower, earlier/later	I can solve problems with time	I know the seasons of the year (NN)	
Year 1 Shape Objectives			
I know the names of 2D shapes: rectangles, including squares, circles and triangles (NN)	I know the names of 3D shapes: cuboids, cubes, pyramid and spheres (NN)	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		

Year 1 Number Objectives

To read and write numbers from 1 to 20 in digits	To read and write numbers from 1 to 20 in words (NN)	To reliably count at least 20 objects (NN)	To use a number line to identify numbers
To represent numbers using objects	To use mathematical vocabulary: equal to, more than, less than, fewer, most, least.	To add 1 and 2 digit numbers to 20 (NN)	To subtract 1 and 2 digit numbers to 20 (NN)
To know the mathematical signs (+, -, =)	To know one more and one less (0-30) (NN)	To read numbers to 100	To write numbers to 100
To count in multiples of 2	To count in multiples of 5	To count in multiples of 10	To count on and back in 1s, 2s, 5s and 10s
To double to at least 10	To know my number bonds to 20 (NN)	To subtract using my number bonds (NN)	To solve one step addition problems using concrete or pictorial representations
To solve subtraction problems using concrete or pictorial representations	To solve multiplication problems using concrete or pictorial representations (with support)	To solve division problems using concrete or pictorial representations (with support)	To count forwards and backwards from any number
To recognise a half	To recognise a quarter	To solve missing number problems (NN)	

Year 1 Number and Place Value

To count to 100, forwards beginning with 0 or 1	To count to 100, forwards from any given number	To count to 100, backwards beginning with 0 or 1	To count to 100, backwards from any given number

Year 1 Measurement Objectives

To use words to order events: before and after, next, first, today, yesterday, tomorrow, morning afternoon, evening	To know the names of the days of the week (NN)	To know the names of the months of the year (NN)	To measure length
To measure height	To compare measurements: longer/shorter, double/half	To describe measurements: full/empty, more/less, half/quarter	To solve problems involving measurements

To know the value of coins	To know the value of notes	To measure weight	To measure capacity
To measure volume	To know O'clock and half past	To draw the hands on a clock	To measure time and begin to record time
To compare time: quicker, slower, earlier/later	To solve problems with time	To know the seasons of the year (NN)	

Year 1 Shape Objectives			
To know the names of 2D shapes: rectangles, including squares, circles and triangles (NN)	To know the names of 3D shapes: cuboids, cubes, pyramid and spheres (NN)	To describe a whole turn	To describe a half turn
To describe a quarter turn	To describe a three quarter turn		

Year 2 Number Objectives

I can read and write numbers to 100 in digits (NN)	I can read and write numbers to 100 in words (NN)	I know the value of each digit in a number (tens, ones) (NN)	I can count on and back in ones, tens or hundreds from any number up to 100 (NN)
I know addition facts to 20	I know addition facts to 100 (NN)	I know subtraction facts to 100 (NN)	I know subtraction facts to 20
I can add a one digit number to a two digit number mentally (NN)	I can subtract a one digit number from a two digit number (NN)	I can add a ten to a two digit number (NN)	I can subtract a ten from a two digit number
I can recognise odd and even numbers	I know my 2 times table facts (NN)	I know my 3 times table facts (NN)	I know my 4 times table facts (NN)
I know my 5 times table facts (NN)	I know my 10 time table facts (NN)	I can use the correct signs for multiplication and division	I can recognise one third
I can recognise one quarter, two quarters and three quarters	I can find $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ of a length, shape, set of objects or quantity	I know that addition can be done in any order (commutative), but not subtraction (NN)	I can use the inverse operation to check calculations
I can solve problems using addition and subtraction	I can add two 2digit numbers	I can subtract two 2 digit numbers	I can add three one digit numbers mentally
I know that multiplication can be done in any order (commutative) but division cannot	I can solve multiplication problems	I can solve division problems	I can use simple fractions to carry out calculations $\frac{1}{2}$ 0f 6 =3
I recognise the equivalence of fractions (1/2 = 2/4)	I understand the <, > and = signs	I can use the signs to compare numbers from 0-100 (NN)	I can use the signs to order numbers
I can use effective mental calculations to solve problems	I can use effective written calculations to solve problems	I can name the following fractions (1/2, $\frac{1}{4}$, $\frac{3}{4}$, 1/3) (NN)	I can find the following fractions (1/2, $\frac{1}{4}$, $\frac{3}{4}$, 1/3, 2/3, 1/5, 2/5)

I can double and halve numbers up to at least 100 mentally (NN)			

Year 2 Measurement Objectives

I know how many minutes are in one hour	I know how many hours are in one day	I can use £ and p to create a given total	I can combine amounts to create a given total
I can solve problems involving money	I can use <, >, = to compare length	I can measure mass (Kg/g) and capacity (l/ml) using the correct equipment (NN)	I can use <, >, = to compare mass and volume
I can tell the time to quarter past and quarter to the hour	I can draw the hands on a clock face to accurately tell the time to quarter past and quarter to	I can tell the time to five minutes (NN)	I can draw the hands on a clock face to accurately tell the time to 5 minutes
I can compare intervals of time (down to 5 minutes)	I can put intervals of time in order	I can measure temperature using the correct equipment	I know the symbols used to represent amounts of money
I can measure the height and length of objects (cm/m)			

Year 2 Shape Objectives

I can sort common 2D shapes: triangles, square, rectangles, pentagon, hexagon, heptagon octagon nonagon, decagon	I can sort common 3D shapes: cone, cube, cuboid, cylinder, sphere, triangular prism, triangular based pyramid, square based pyramid	I can identify 2D shapes on the 3D shapes	I can order objects to complete a pattern or sequence
I know the properties of 2D shapes using vocabulary such as faces, vertices and edges (NN)	I know mathematical vocabulary to describe position: position, over, under, underneath, above, below, top, bottom, side on, in, outside, inside,	I know mathematical vocabulary to describe direction: left, right, up, down, *higher, lower*, forwards, backwards, sideways, across, close, far, near, along, through,	I know mathematical vocabulary to describe movement: c*lockwise, anti-clockwise*, movement, slide roll whole turn, half

	around , in front, behind, front, back	to, from, towards, away from	turn, *quarter turn right angle straight line* stretch, bend
	I know the properties of 2D shapes	I know the properties of 3D shapes	I can describe movement in terms of turns	I know anti clockwise and clockwise directions
Year 2 Statistics Objectives			
I can sort objects into categories by quantity	I can ask and answer questions by counting a number of objects	I can interpret data in a pictogram	I can interpret data in a tally chart
I can construct a pictogram (NN)	I can construct a tally chart (NN)	I can construct a block diagram (NN)	I can construct simple tables (NN)
I can ask and answer questions about a range of data (information)			

Year 2 Number Objectives			
To read and write numbers to 100 in digits (NN)	To read and write numbers to 100 in words (NN)	To know the value of each digit in a number (tens, ones) (NN)	To count on and back in ones, tens or hundreds from any number up to 100 (NN)
To know addition facts to 20	To know addition facts to 100 (NN)	To know subtraction facts to 100 (NN)	To know subtraction facts to 20
To add a one digit number to a two digit number mentally (NN)	To subtract a one digit number from a two digit number (NN)	To add a ten to a two digit number (NN)	To subtract a ten from a two digit number
To recognise odd and even numbers	To know my 2 times table facts (NN)	To know my 3 times table facts (NN)	To know my 4 times table facts (NN)
To know my 5 times table facts (NN)	To know my 10 time table facts (NN)	To use the correct signs for multiplication and division	To recognise one third
To recognise one quarter, two quarters and three quarters	To find $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ of a length, shape, set of objects or quantity	To know that addition can be done in any order (commutative), but not subtraction (NN)	To use the inverse operation to check calculations
To solve problems using addition and subtraction	To add two 2digit numbers	To subtract two 2 digit numbers	To add three one digit numbers mentally
To know that multiplication can be done in any order (commutative) but division cannot	To solve multiplication problems	To solve division problems	To use simple fractions to carry out calculations $\frac{1}{2}$ 0f 6 =3
To I recognise the equivalence of fractions (1/2 = 2/4)	To understand the <, > and = signs	To use the signs to compare numbers from 0-100 (NN)	To use the signs to order numbers
To use effective mental calculations to solve problems	To use effective written calculations to solve problems	To name the following fractions (1/2, $\frac{1}{4}$, $\frac{3}{4}$, 1/3) (NN)	To find the following fractions (1/2, $\frac{1}{4}$, $\frac{3}{4}$, 1/3, 2/3, 1/5, 2/5)

To double and halve numbers up to at least 100 mentally (NN)			

Year 2 Measurement Objectives

To know how many minutes are in one hour	To know how many hours are in one day	To use £ and p to create a given total	To combine amounts to create a given total
To solve problems involving money	To use <, >, = to compare length	To measure mass (Kg/g) and capacity (l/ml) using the correct equipment (NN)	To use <, >, = to compare mass and volume
To tell the time to quarter past and quarter to the hour	To draw the hands on a clock face to accurately tell the time to quarter past and quarter to	To tell the time to five minutes (NN)	To draw the hands on a clock face to accurately tell the time to 5 minutes
To compare intervals of time (down to 5 minutes)	To put intervals of time in order	To measure temperature using the correct equipment	I know the symbols used to represent amounts of money
To measure the height and length of objects (cm/m)			

Year 2 Shape Objectives

To sort common 2D shapes: triangles, square, rectangles, pentagon, hexagon, heptagon octagon nonagon, decagon	To sort common 3D shapes: cone, cube, cuboid, cylinder, sphere, triangular prism, triangular based pyramid, square based pyramid	To identify 2D shapes on the 3D shapes	To order objects to complete a pattern or sequence
To know the properties of 2D shapes using vocabulary such as faces, vertices and edges (NN)	To know mathematical vocabulary to describe position: position, over, under, underneath, above, below, top, bottom, side on, in, outside, inside, around , in front,	To know mathematical vocabulary to describe direction: left, right, up, down, *higher, lower*, forwards, backwards, sideways, across, close, far, near, along, through, to, from, towards,	To know mathematical vocabulary to describe movement: c*lockwise, anti-clockwise*, movement, slide roll whole turn, half turn, *quarter turn right angle*

	behind, front, back	away from	*straight line* stretch, bend
	To know the properties of 2D shapes	To know the properties of 3D shapes	To describe movement in terms of turns	To know anti clockwise and clockwise directions

Year 2 Statistics Objectives			
To sort objects into categories by quantity	To ask and answer questions by counting a number of objects	To interpret data in a pictogram	To interpret data in a tally chart
To construct a pictogram (NN)	To construct a tally chart (NN)	To construct a block diagram (NN)	To construct simple tables (NN)
To ask and answer questions about a range of data (information)			

Year 3 Number Objectives

I can name the value of hundreds, tens and units (NN)	I can read numbers up to 1000 in words and numerals (NN)	I can write numbers up to 1000 in words and numerals (NN)	I can find 10 more or less than a given number
I can find 100 more or less than a given number	I can solve problems involving place value	I can add a 3 digit number and a 1 digit number in my head	I can subtract a 3 digit number and a 2 digit number in my head
I can use column addition	I can use column subtraction without decomposition	I can use column subtraction with decomposition	I know my 3 times table and division facts (NN)
I know my 4 times table and division facts (NN)	I know my 6 times tables and division facts (NN)	I know my 8 times table and division facts (NN)	I can multiply 2-digit numbers by 1-digit numbers mentally
I can divide 2-digit numbers by 1-digit numbers mentally (NN)	I can add and subtract a 3 digit number to a 3 digit number in my head (NN)	I can write the number of objects as a fraction	I can find a fraction of a number of objects (NN)
I can compare/order fractions with the same denominator	I can compare numbers up to 1000 using >, <, = signs	I can order numbers up to 1000	I can count in multiples of 4
I can count in multiples of 50	I can count in multiples of 100	I can estimate the answer to a calculation	I can solve missing number problems
I can use number facts to help me solve problems	I can use place value to help me solve problems	I can use formal written methods for multiplication (grid)	I can solve problems involving multiplication
I can multiply a 2 digit number by 10 and 100 (NN)	I can divide a 2 digit number by 10 and 100 (NN)	I can use formal written methods for division (27÷5) (NN)	I can solve problems involving division
I can solve problems involving fractions	I can recognise simple fractions as numbers	I can count in tenths	I can add fractions with the same denominator (NN)

I recognise a fraction is part of a whole number	I can use the inverse operation (+/-, x/÷)	I can subtract fractions with the same denominator	I can round numbers (up to 3 digits) to the nearest 10 or 100 (NN)
I can could in steps of 4, 8, 50 and 100 (NN)	I can recognise the value of each digit in a 3 digit number (NN)	I can solve one and two step problems in all four operations (NN)	

Year 3 Measurement Objectives

I can measure using the correct units (kg/g, m/cm/mm, l/ml)	I can compare units of measure (kg/g, m/cm/mm, l/ml) (NN)	I can add and subtract units of measure (kg/g, m/cm/mm, l/ml) (NN)	I can use coins to add and subtract in context
I can tell the time on an analogue clock	I can use a 12 hour clock to tell the time	I can tell the time to the nearest minute (NN)	I know my time facts: minutes in an hour, hours in a day etc.
I can record time in seconds, minutes and hours	I can compare lengths of time in seconds, minutes and hours	I know my vocabulary for time: am/pm, morning, afternoon, noon, midnight	I can compare a duration of time
I can tell and write the time using the 24 hour clock			

Year 3 Shape Objectives

I can draw 2D shapes	I can find the perimeter of 2D shapes	I can make 3D shapes: cube, cuboid, triangular prism, triangular based pyramid, square based pyramid	I can describe the properties of 3D shapes: faces, vertices, edges
I can identify horizontal and vertical lines (NN)	I can identify parallel lines	I can identify perpendicular lines	I know what angles are used to describe turns
I can recognise right angles (NN)	I can compare the size of angles (NN)		

Year 3 Statistics Objectives

I can read data on a bar chart and explain what the information tells me	I can collect information and display it in a bar chart, pictogram or table	I can solve problems using the information displayed in charts and tables (NN)	

Year 3 Number Objectives			
To name the value of hundreds, tens and units (NN)	To read numbers up to 1000 in words and numerals (NN)	To write numbers up to 1000 in words and numerals (NN)	To find 10 more or less than a given number
To find 100 more or less than a given number	To solve problems involving place value	To add a 3 digit number and a 1 digit number in my head	To subtract a 3 digit number and a 2 digit number in my head
To use column addition	To use column subtraction without decomposition	To use column subtraction with decomposition	To know my 3 times table and division facts (NN)
To know my 4 times table and division facts (NN)	To know my 6 times tables and division facts (NN)	To know my 8 times table and division facts (NN)	To multiply 2-digit numbers by 1-digit numbers mentally
To divide 2-digit numbers by 1-digit numbers mentally (NN)	To add and subtract a 3 digit number to a 3 digit number in my head (NN)	To write the number of objects as a fraction	To find a fraction of a number of objects (NN)
To compare/order fractions with the same denominator	To compare numbers up to 1000 using >, <, = signs	To order numbers up to 1000	To count in multiples of 4
To count in multiples of 50	To count in multiples of 100	To estimate the answer to a calculation	To solve missing number problems
To use number facts to help me solve problems	To use place value to help me solve problems	To use formal written methods for multiplication (grid)	To solve problems involving multiplication
To multiply a 2 digit number by 10 and 100 (NN)	To divide a 2 digit number by 10 and 100 (NN)	To use formal written methods for division (27÷5) (NN)	To solve problems involving division
To solve problems involving fractions	To recognise simple fractions as numbers	To count in tenths	To add fractions with the same denominator (NN)

To recognise a fraction is part of a whole number	To use the inverse operation (+/-, x/÷)	To subtract fractions with the same denominator	To round numbers (up to 3 digits) to the nearest 10 or 100 (NN)
To could in steps of 4, 8, 50 and 100 (NN)	To recognise the value of each digit in a 3 digit number (NN)	To solve one and two step problems in all four operations (NN)	

Year 3 Measurement Objectives			
To measure using the correct units (kg/g, m/cm/mm, l/ml)	To compare units of measure (kg/g, m/cm/mm, l/ml) (NN)	To add and subtract units of measure (kg/g, m/cm/mm, l/ml) (NN)	To use coins to add and subtract in context
To tell the time on an analogue clock	To use a 12 hour clock to tell the time	To tell the time to the nearest minute (NN)	To know my time facts: minutes in an hour, hours in a day etc.
To record time in seconds, minutes and hours	To compare lengths of time in seconds, minutes and hours	To know my vocabulary for time: am/pm, morning, afternoon, noon, midnight	To compare a duration of time
To tell and write the time using the 24 hour clock			

Year 3 Shape Objectives			
To draw 2D shapes	To find the perimeter of 2D shapes	To make 3D shapes: cube, cuboid, triangular prism, triangular based pyramid, square based pyramid	To describe the properties of 3D shapes: faces, vertices, edges
To identify horizontal and vertical lines (NN)	To identify parallel lines	To identify perpendicular lines	To know what angles are used to describe turns
To recognise right angles (NN)	To compare the size of angles (NN)		

Year 3 Statistics Objectives

To read data on a bar chart and explain what the information tells me	To collect information and display it in a bar chart, pictogram or table	To solve problems using the information displayed in charts and tables (NN)	

Year 4 Number Objectives

I can find 1000 more or less than a given number	I can count backwards through zero to include negative numbers (NN)	I can order a set of positive and negative integers (NN)	I know the place value of digits in a four-digit number (ThHTU)
I can round to the nearest 10 (NN)	I can round to the nearest 100 (NN)	I can round to the nearest 1000 (NN)	I can round decimals with one decimal place to the nearest whole number (NN)
I can solve problems involving number	I can use the column addition method for 4 digit numbers (NN)	I can use the column subtraction method, including decomposition, for 4 digit numbers (NN)	I can solve 2 step problems involving addition and subtraction
I know all of my times tables and division facts up to 12x12 (NN)	I can use column written methods for multiplication (TUxU, HTU xU)	I can solve problems involving multiplication and division	I can use division to find a fraction of a number (NN)
I can add fractions with the same denominator	I can subtract fractions with the same denominator	I can recognise equivalent fractions	I know decimal equivalences for $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
I can calculate halves and doubles of decimals (to 1 decimal place) (NN)	I recognise and write decimal equivalences of any number of tenths	I can identify pairs of fractions that total 1 (NN)	I recognise and write decimal equivalences of any number of hundredths (NN)
I can read and write numbers to 2 decimal places and know the value of each digit (NN)	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	I know the Roman numerals (1-100) and what they stand for	I can use > and < signs to compare and order numbers beyond 1000
I can use the inverse operation to check my answers	I can multiply 3 numbers together	I can solve problems involving scaling	I can count in hundredths

I can divide numbers by 10 and identify the value of each digit in decimal numbers (NN)	I can divide numbers by 100 and identify the value of each digit in decimal numbers (NN)	I can use different representations for number	I know factors pairs and can use them to help me calculate mentally
I can use > and < signs to compare decimal numbers	I can solve problems involving decimal notation	I can solve problems involving fractions and quantities	I can identify pairs of fractions that total 1 (NN)
I can compare numbers with the same number of decimal places up to 2 decimal places (NN)	I can solve problems involving multiplication (NN)		

Year 4 Measurement Objectives			
I can convert between units of measure (km to m, hours to mins)	I can find the area of simple shapes	I can read and write the time in analogue and digital 12 hour clock	I can calculation the perimeter of simple shapes in cm and m (NN)
I can convert time between the 12 and 24 hour clock (NN)	I can solve problems involving time facts (minutes to hours, months to weeks, years to days)	I can estimate and calculate units of measure, including pounds and pence	I can tell the time using the 24 hour clock (NN)
I can tell the time on a digital and analogue clock (NN)			

Year 4 Shape Objectives			
I can compare geometric shapes by their properties and size (NN)	I can identify lines of symmetry in 2d shapes	I can describe the coordinates on a grid in the first quadrant	I can describe the coordinates on a grid all four quadrants
I can identify lines of symmetry in different orientations	I can identify acute and obtuse angles	I can plot points of a grid to draw a shape	I can complete a shape or pattern using a line of symmetry
I can identify acute and obtuse angles (NN)	I can compare and order angles by size	I can translate a shape on a grid using vocabulary such as up/down, right/	I

		left	
Year 4 Statistics Objectives			
I can answer questions using information from a chart/graph (NN)	I can interpret data and display the information in a chart/graph (NN)		

Year 4 Number Objectives

To find 1000 more or less than a given number	To count backwards through zero to include negative numbers (NN)	To order a set of positive and negative integers (NN)	To know the place value of digits in a four-digit number (ThHTU)
To round to the nearest 10 (NN)	To round to the nearest 100 (NN)	To round to the nearest 1000 (NN)	To round decimals with one decimal place to the nearest whole number (NN)
To solve problems involving number	To use the column addition method for 4 digit numbers (NN)	To use the column subtraction method, including decomposition, for 4 digit numbers (NN)	To solve 2 step problems involving addition and subtraction
To know all of my times tables and division facts up to 12x12 (NN)	To use column written methods for multiplication (TUxU, HTU xU)	To solve problems involving multiplication and division	To use division to find a fraction of a number (NN)
To add fractions with the same denominator	To subtract fractions with the same denominator	To recognise equivalent fractions	To know decimal equivalences for $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
To calculate halves and doubles of decimals (to 1 decimal place) (NN)	To recognise and write decimal equivalences of any number of tenths	To identify pairs of fractions that total 1 (NN)	To recognise and write decimal equivalences of any number of hundredths (NN)
To read and write numbers to 2 decimal places and know the value of each digit (NN)	To count in multiples of 6	To count in multiples of 7	To count in multiples of 9
To count in multiples of 25	To count in multiples of 1000	To know the Roman numerals (1-100) and what they stand for	To use > and < signs to compare and order numbers beyond 1000
To use the inverse operation to check my answers	To multiply 3 numbers together	To solve problems involving scaling	To count in hundredths

To divide numbers by 10 and identify the value of each digit in decimal numbers (NN)	To divide numbers by 100 and identify the value of each digit in decimal numbers (NN)	To use different representations for number	To know factors pairs and can use them to help me calculate mentally
To use > and < signs to compare decimal numbers	To solve problems involving decimal notation	To solve problems involving fractions and quantities	To identify pairs of fractions that total 1 (NN)
To compare numbers with the same number of decimal places up to 2 decimal places (NN)	To solve problems involving multiplication (NN)		

Year 4 Measurement Objectives

To convert between units of measure (km to m, hours to mins)	To find the area of simple shapes	To read and write the time in analogue and digital 12 hour clock	To calculation the perimeter of simple shapes in cm and m (NN)
To convert time between the 12 and 24 hour clock (NN)	To solve problems involving time facts (minutes to hours, months to weeks, years to days)	To estimate and calculate units of measure, including pounds and pence	To tell the time using the 24 hour clock (NN)
To tell the time on a digital and analogue clock (NN)			

Year 4 Shape Objectives

To compare geometric shapes by their properties and size (NN)	To identify lines of symmetry in 2d shapes	To describe the coordinates on a grid in the first quadrant	To describe the coordinates on a grid all four quadrants
To identify lines of symmetry in different orientations	To identify acute and obtuse angles	To plot points of a grid to draw a shape	To complete a shape or pattern using a line of symmetry
To identify acute and obtuse angles (NN)	To compare and order angles by size	To translate a shape on a grid using vocabulary such as	I

		up/down, right/ left	
Year 4 Statistics Objectives			
To answer questions using information from a chart/graph (NN)	To interpret data and display the information in a chart/graph (NN)		

Year 5 Number Objectives

I can read, write, order and compare numbers up to 1 000 000 (NN)	I can know the value of each digit up to 1 000 000	I can count forwards and backwards in powers of 10 (NN)	I can round numbers to the nearest 10, 100, 1000, 10000 and 100000 (NN)
I can solve problems involving large numbers	I can use column addition written methods for numbers with more than 4 digits	I can use column subtraction written methods, including decomposition, for numbers with more than 4 digits (NN)	I can solve multi-step addition and subtraction problems using different methods
I can use short multiplication written methods for 4 digit numbers by 1 and 2 digit numbers (NN)	I can use long multiplication written methods for multiplying by two digit numbers	I can read and write numbers with up to 3 decimal places	I can order and compare numbers with up to 3 decimal places
I can recognise the value of decimal numbers, up to 2 decimal places (NN)	I can convert decimal numbers into fractions	I can identify, name and write equivalent fractions	I can use square and cube numbers using notation [2, 3 (NN)]
I can multiply whole and decimal numbers by 10, 100, 1000 (NN)	I can divide whole and decimal numbers by 10, 100, 1000 (NN)	I can use known facts to multiply and divide mentally	I can add and subtract mentally
I can double numbers to 1000 in my head (NN)	I can recognise the % sign and know what it means	I can write percentages as a fraction	I can write percentages as a decimal
I can solve problems involving percentages and decimal equivalence	I can interpret negative numbers in context	I can count forwards and backwards with negative numbers	I can use rounding to check answers
I can identify multiples and factors, including finding all of the factor pairs of a number	I can find common factors of two numbers	I can use vocabulary for prime numbers, prime factors and non-prime numbers	I can decide whether a number is prime (up to 100)
I can recall all prime numbers up to 19	I can solve problems involving decimal numbers	I can solve multi-step problems using different methods	I can compare and order fractions
I can add and subtract fractions whose denominators are all multiples of the same	I can multiply proper fractions using objects to support	I can solve problems involving fractions and simple rates using	I can convert mixed number and improper fractions and write mathematical

number (NN)		different methods	statements based on this (NN)
I can round decimal numbers with two decimal places to the nearest whole number and to one decimal place (NN)	I can multiply proper and mixed fractions by whole numbers	I can find simple percentages of whole numbers (NN)	I can solve problems involving percentages and decimal equivalences
I can solve multi-step problems involving multiplication and division where large numbers are used (NN)	I can use short division written method (roof top) (NN)	I can read Roman Numerals up to 1000 (M)	I can recognise years written in Roman numerals
I can read and write decimal numbers as fractions (NN)	I can round decimals with 2 decimal places to the nearest whole number and to 1 decimal place (NN)	I can solve problems with numbers with 3 decimal places (NN)	

Year 5 Measurement Objectives

I can convert units of measure (km to m; cm to m; cm to mm; l to ml; g to kg) (NN)	I can calculate the perimeter of composite rectilinear shapes (compound shapes) (NN)	I can solve problems involving converting units of time	I can calculate the area of regular rectangles (NN)
I can use all four operations to solve problems involving measure	I understand the approximate equivalences between metric and imperial units (inches, pounds and pints)	I can estimate volume and capacity of 3D shapes	I can calculate the area of irregular shapes

Year 5 Shape Objectives

I can identify 3D shapes from 2D representations	I can distinguish between regular and irregular polygons	I can describe a shape following translation	I can name and measure angles accurately (NN)
I can draw angles using a protractor	I can measure angler with a protractor in degrees	I can reflect a shape and describe its position	I can estimate and recognise a range of different angles (NN)
To use properties of a rectangle to deduce more information such as missing lengths and angles	To reflect and translate a shape and describe its position		

Year 5 Statistics Objectives			
To complete information in tables, including timetables	To interpret information in tables, including timetables	To solve a range of problems using a line graph including sum and difference problems (NN)	To read information in tables, including timetables

Year 5 Number Objectives

To read, write, order and compare numbers up to 1 000 000 (NN)	To know the value of each digit up to 1 000 000	To count forwards and backwards in powers of 10 (NN)	To round numbers to the nearest 10, 100, 1000, 10000 and 100000 (NN)
To solve problems involving large numbers	To use column addition written methods for numbers with more than 4 digits	To use column subtraction written methods, including decomposition, for numbers with more than 4 digits (NN)	To solve multi-step addition and subtraction problems using different methods
To use short multiplication written methods for 4 digit numbers by 1 and 2 digit numbers (NN)	To use long multiplication written methods for multiplying by two digit numbers	To read and write numbers with up to 3 decimal places	To order and compare numbers with up to 3 decimal places
To recognise the value of decimal numbers, up to 2 decimal places (NN)	To convert decimal numbers into fractions	To identify, name and write equivalent fractions	To use square and cube numbers using notation [2], [3] (NN)
To multiply whole and decimal numbers by 10, 100, 1000 (NN)	To divide whole and decimal numbers by 10, 100, 1000 (NN)	To use known facts to multiply and divide mentally	To add and subtract mentally
To double numbers to 1000 in my head (NN)	To recognise the % sign and know what it means	To write percentages as a fraction	To write percentages as a decimal
To solve problems involving percentages and decimal equivalence	To interpret negative numbers in context	To count forwards and backwards with negative numbers	To use rounding to check answers
To identify multiples and factors, including finding all of the factor pairs of a number	To find common factors of two numbers	To use vocabulary for prime numbers, prime factors and non-prime numbers	To decide whether a number is prime (up to 100)
To recall all prime numbers up to 19	To solve problems involving decimal numbers	To solve multi-step problems using different methods	To compare and order fractions
To add and subtract fractions whose denominators are all multiples of the same	To multiply proper fractions using objects to support	To solve problems involving fractions and simple rates using	To convert mixed number and improper fractions and write mathematical

number (NN)		different methods	statements based on this (NN)
To round decimal numbers with two decimal places to the nearest whole number and to one decimal place (NN)	To multiply proper and mixed fractions by whole numbers	To find simple percentages of whole numbers (NN)	To solve problems involving percentages and decimal equivalences
To solve multi-step problems involving multiplication and division where large numbers are used (NN)	To use short division written method (roof top) (NN)	To read Roman Numerals up to 1000 (M)	To recognise years written in Roman numerals
To read and write decimal numbers as fractions (NN)	To round decimals with 2 decimal places to the nearest whole number and to 1 decimal place (NN)	To solve problems with numbers with 3 decimal places (NN)	

Year 5 Measurement Objectives

To convert units of measure (km to m; cm to m; cm to mm; l to ml; g to kg) (NN)	To calculate the perimeter of composite rectilinear shapes (compound shapes) (NN)	To solve problems involving converting units of time	To calculate the area of regular rectangles (NN)
To use all four operations to solve problems involving measure	I understand the approximate equivalences between metric and imperial units (inches, pounds and pints)	To estimate volume and capacity of 3D shapes	To calculate the area of irregular shapes

Year 5 Shape Objectives

To identify 3D shapes from 2D representations	To distinguish between regular and irregular polygons	To describe a shape following translation	To name and measure angles accurately (NN)
To draw angles using a protractor	To measure angler with a protractor in degrees	To reflect a shape and describe its position	To estimate and recognise a range of different angles (NN)
To use properties of a rectangle to deduce more information such as missing lengths and angles	To reflect and translate a shape and describe its position		

Year 5 Statistics Objectives			
To complete information in tables, including timetables	To interpret information in tables, including timetables	To solve a range of problems using a line graph including sum and difference problems (NN)	To read information in tables, including timetables

Year 6 Number Objectives

I can read, write, order and compare numbers up to 10 000 000	I know the value of each digit up to 10 000 000	I can use negative numbers in context	I can calculate intervals across zero
I can solve problems that involve negative numbers	I can solve problems that involve large numbers up to 10 000 000	I know common factors	I know multiples
I know prime numbers up to 100	I can use an effective written method for all 4 operations (NN)	I can include remainders and interpret them according to the context (as a fraction, as a remainder and as a decimal)	I can solve multi-step problems involving addition and subtraction
I can estimate to check answers or check degree of accuracy	I can perform mental calculations, including mixed operations	I can identify the place value of each digit up to three decimal places	I can multiply and divide by 10, 100 & 1000
I can multiply and divide decimals mentally by 10 or 100 and integers to 1000 (NN)	I can give equivalences between fractions, decimals and percentages	I can multiply decimal numbers (1.63x24)	I can use written division methods where the answer has up to 2 decimal places
I can use times tables to work with decimals to 1decimal place (NN)	I can use multiplication facts to derive squares of numbers to 12 x 12 (NN)	I can add and subtract decimals mentally (NN)	I can round any whole number to a required degree of accuracy
I can order a mixed set of numbers to 3 decimal places (NN)	I can solve problems that involve rounding	I can include remainders and interpret them as whole number remainders and/or fractions	I can use the long division method
I can solve problems involving all four operations	I can compare fractions	I can order fractions including fractions greater than 1	I can add fractions with different denominators and mixed numbers
I can subtract fractions with different denominators	I can multiply simple fractions	I can divide proper fractions by whole numbers (1/3 ÷ 2)	I can simplify fractions

and mixed numbers			
I can work out which fraction is larger/smaller by cancelling common factors (NN)	I can calculate decimal fractions	I can use estimation to check answers and calculate an appropriate degree of accuracy	I can solve number problems involving the 4 operations
I know fraction/decimal equivalences: 1/2, quarters, thirds, fifths, eighths, tenths, hundredths),			

I can calculate the area of parallelograms	I can calculate the area of triangles	I can convert units of measure (mass, volume, time) up to 3 places	I can solve problems involving units of measure up to three decimal places
I can recognise the difference between area and perimeter	I know the formula for area of shapes	I know that the same shapes with the same area can have different perimeters and vice versa	I know the formula for volume of shapes
I can compare the volume of cubes and cuboids	I can estimate the volume of cubes and cuboids using cm^3, m^3	I can calculate the volume of cubes and cuboids using cm^3, m^3	I can convert between miles and km

I can name parts of a circle: radius, diameter and circumference	I know the diameter is twice the radius	I can recognise angles around a point and on a straight line	I can recognise, describe and build 3D shapes
I can recognise the nets for 3D shapes	I know all four quadrants on a coordinate grid	I can recognise angles that are vertically opposite	I can find missing angles
I can draw 2D shapes accurately	I can compare shapes based on their properties	I can find unknown angles in triangles, quadrilaterals and regular polygons	I can draw shapes on a coordinate plane
I can translate shapes on a coordinate plane	I can reflect shapes on the axis		

I can work out	I can solve problems	I can enlarge and	I can use my

percentages of amounts	involving finding missing values	decrease shapes in size according to a scale factor	knowledge of multiples to solve problems
I can use my knowledge of fractions to solve problems	I can solve problems involving finding missing values		

Year 6 Statistics Objectives			
I know what the mean is	I can calculate the mean as an average	I can interpret pie charts and line graphs and use them to answer questions	I can construct pie charts and line graphs

Year 6 Algebra Objectives			
I can express missing numbers algebraically	I can use a simple formulae	I can find two unknown numbers in an equation	I can understand a linear sequence
I can create a number sequence using the nth term	I can use trial and error to solve problems involving variables		

Year 6 Number Objectives			
To read, write, order and compare numbers up to 10 000 000	I know the value of each digit up to 10 000 000	To use negative numbers in context (NN)	To calculate intervals across zero
To solve problems that involve negative numbers	To solve problems that involve large numbers up to 10 000 000	To know common factors	To know multiples
To know prime numbers up to 100	To use an effective written method for all 4 operations (NN)	To include remainders and interpret them according to the context (as a fraction, as a remainder and as a decimal)	To solve multi-step problems involving addition and subtraction
To estimate to check answers or check degree of accuracy	To perform mental calculations, including mixed operations	To identify the place value of each digit up to three decimal places	To multiply and divide by 10, 100 & 1000
To multiply and divide decimals mentally by 10 or 100 and integers to 1000 (NN)	To give equivalences between fractions, decimals and percentages	To multiply decimal numbers (1.63x24)	To use written division methods where the answer has up to 2 decimal places (NN)
To use times tables to work with decimals to 1decimal place (NN)	To use multiplication facts to derive squares of numbers to 12 x 12 (NN)	To add and subtract decimals mentally (NN)	To round any whole number to a required degree of accuracy (NN)
To order a mixed set of numbers to 3 decimal places (NN)	To solve problems that involve rounding	To include remainders and interpret them as whole number remainders and/or fractions	To use the long division method
To solve problems involving all four operations	To compare fractions	To order fractions including fractions greater than 1	To add fractions with different denominators and mixed numbers (NN)

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To subtract fractions with different denominators and mixed numbers	To multiply simple fractions (NN)	To divide proper fractions by whole numbers (1/3 ÷ 2)	To simplify fractions
To work out which fraction is larger/smaller by cancelling common factors (NN)	To calculate decimal fractions	To use estimation to check answers and calculate an appropriate degree of accuracy	To solve number problems involving the 4 operations
To know fraction/decimal equivalences: 1/2, quarters, thirds, fifths, eighths, tenths, hundredths),	To solve problems involving the calculations of percentages (NN)	To multiply 1 digit numbers with up to two decimal places by whole numbers (NN)	■

Year 6 Measurement Objectives

To calculate the area of parallelograms (NN)	To calculate the area of triangles (NN)	To convert units of measure (mass, volume, time) up to 3 places (NN)	To solve problems involving units of measure up to three decimal places
To recognise the difference between area and perimeter	To I know the formula for area of shapes	To know that the same shapes with the same area can have different perimeters and vice versa	To know the formula for volume of shapes
To compare the volume of cubes and cuboids	To estimate the volume of cubes and cuboids using cm^3, m^3	To calculate the volume of cubes and cuboids using cm^3, m^3	To convert between miles and km

Year 6 Shape Objectives

To illustrate and name parts of a circle: radius, diameter and circumference (NN)	To know the diameter is twice the radius	To recognise angles around a point and on a straight line	To recognise, describe and build 3D shapes (NN)
To recognise the nets for 3D shapes (NN)	I know all four quadrants on a coordinate grid	To recognise angles that are vertically opposite	To find missing angles
To draw 2D shapes accurately	To compare shapes based on their properties (NN)	To find unknown angles in triangles, quadrilaterals and regular polygons	To draw shapes on a coordinate plane
To translate shapes on a coordinate plane	To reflect shapes on the axis	■	

Year 6 Ration & Proportion Objectives

To work out percentages of amounts	To solve problems involving finding missing values	To enlarge and decrease shapes in size according to a scale factor	To use my knowledge of multiples to solve problems
To use my knowledge of fractions to solve problems	To solve problems involving finding missing values		

Year 6 Statistics Objectives

To know what the mean is	To calculate the mean as an average	To interpret pie charts and line graphs and use them to answer questions (NN)	To construct pie charts and line graphs (NN)

Year 6 Algebra Objectives

To express missing numbers algebraically (NN)	To use a simple formulae	To find two unknown numbers in an equation	To understand a linear sequence
To create a number sequence using the nth term	To use trial and error to solve problems involving variables		