Children turning/who have just turned 3 in nursery (N1) may be learning to:

Development Matters 2021 (Birth to Three)

- Combine objects like stacking blocks and cups. Put objects inside others and take them out again.
- Take part in finger rhymes with numbers.
- React to changes of amount in a group of up to three items.
- Compare amounts, saying 'lots', 'more' or 'same'.
- Develop counting-like behaviour, such as making sounds, pointing or saying some numbers in sequence.
- Count in everyday contexts, sometimes skipping numbers – '1-2-3-5'.
- Climb and squeeze themselves into different types of spaces.
- Build with a range of resources. Complete inset puzzles.
- Notice patterns and arrange things in patterns.
- Compare sizes, weights etc. using gesture and language - 'bigger/little/smaller', 'high/low', 'tall', 'heavy'.

Children turning 4 in Nursery (N2) will typically be learning to:

Development Matters 2021 (3 and 4 Year Olds)

- Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').
- Recite numbers past 5. Say one number for each item in order: 1,2,3,4,5.
- Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle').
- Show 'finger numbers' up to 5.
- Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5.
- Experiment with their own symbols and marks as well as numerals. Solve real world mathematical problems with numbers up to 5. Compare quantities using language: 'more than', 'fewer than'.
- Understand position through words alone – for example, "The bag is under the table," – with no pointing. Describe a familiar route. Discuss routes and locations, using words like 'in front of' and 'behind'.
- Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'.
- Select shapes appropriately: flat surfaces for building, a triangular prism for a roof, etc. Combine shapes to make new ones – an arch, a bigger triangle, etc.
- Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper.
- Use informal language like 'pointy', 'spotty', 'blobs', etc.
- Extend and create ABAB patterns – stick, leaf, stick, leaf.
- Notice and correct an error in a repeating pattern.
- Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...'
- Make comparisons between objects relating to size, length, weight and capacity.

Year N1 Yearly Overview				
Autumn				
Pattern	Measure	Shape	Spatial Awareness	Counting
Spring				
Pattern	Measure	Shape	Spatial Awareness	Counting
Summer				
Pattern	Measure	Shape	Spatial Awareness	Counting

Year N2 Yearly Overview							
Autumn 1				Autumn 2			
Pattern	Measure	Shape	Spatial Awareness	Pattern	Measure	Shape	Spatial Awareness
Counting				Counting			
Spring 1				Spring 2			
Pattern	Measure	Shape	Spatial Awareness	Pattern	Measure	Shape	Spatial Awareness
Counting				Counting	Subitising		Comparison

Summer 1					Summer 2				
Pattern	Measure	Shape	Spatial Awareness		Pattern	Measure	Shape	Spatial Awareness	
Counting	Subitising			Comparison	Counting	Subitising	Cardinality	Composition	Comparison

Children in Reception will typically be learning to:

Development Matters 2021 (reception)

- Count objects, actions and sounds.
- Subitise.
- Link the number symbol (numeral) with its cardinal number value.
- Count beyond ten.
- Compare numbers.
- Compare numbers.
- Explore the composition of numbers to 10.
- Automatically recall number bonds for numbers 0–5 and some to 10.
- Select, rotate and manipulate shapes to develop spatial reasoning skills.
- Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.
- Continue, copy and create repeating patterns.
- Compare length, weight and capacity.

The EYFS Early Learning Goals

Number
Children at the expected level of development will:
- Have a deep understanding of number to 10, including the composition of each number; - Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.
Numerical Patterns
Children at the expected level of development will:
- Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

Year R Yearly Overview							
Autumn 1				Autumn 2			
Pattern	Measure	Shape	Spatial Awareness	Pattern	Measure	Shape	Spatial Awareness
Subitising (within 4)	Cardinality, Ordinality, Counting (within 4)	Composition (within 4)	Comparison	Subitising (within 5)	Cardinality, Ordinality, Counting (within 5)	Composition (within 5)	Comparison
Spring 1				Spring 2			
Pattern	Measure	Shape	Spatial Awareness	Pattern	Measure	Shape	Spatial Awareness
Subitising (5 plus)	Cardinality, Ordinality, Counting (to 20)	Composition (5 and 6)	Comparison	Subitising (patterns and doubles)	Cardinality, Ordinality, Counting (beyond 20)	Composition (odd and even, within 10)	Comparison
Summer 1				Summer 2			
Pattern	Measure	Shape	Spatial Awareness	Pattern	Measure	Shape	Spatial Awareness
Subitising (within 10)	Cardinality, Ordinality, Counting (beyond 20)	Composition (of 10)	Comparison	Consolidation of understanding of concepts previously taught through working in a variety of contexts and with different numbers			

National Curriculum Attainment Targets taught in Year 1

Number - number and place value
count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
count, read and write numbers to 20 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
Number - addition and subtraction
read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs
solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = – 9.
recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.
Number - multiplication and division
count in multiples of twos, fives and tens
Number - fractions
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.
Measurement
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]
measure and begin to record the following:
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.
Geometry - properties of shape

recognise and name common 2-D and 3-D shapes, including:
2-D shapes [for example, rectangles (including squares), circles and triangles]
3-D shapes [for example, cuboids (including cubes), pyramids and spheres].
Geometry - position and direction
describe position, direction and movement, including whole, half, quarter and three quarter turns

Year 1 Yearly Overview	
Autumn 1	Autumn 2
Early Years transition unit Number and Place Value	Number and Place Value Geometry - properties of shape
Spring 1	Spring 2
Geometry - properties of shape Addition and Subtraction	Addition and Subtraction Number and Place Value
Summer 1	Summer 2
Measurement Multiplication and Division	Fractions Geometry - position and direction Measurement - time

National Curriculum Attainment Targets taught in Year 2

Number - number and place value
count, read and write numbers to 100 in numerals;
represent and use number bonds and related subtraction facts within 20
add and subtract one-digit and two-digit numbers to 20, including zero
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.
Number - addition and subtraction
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
recall and use addition and subtraction facts to 20 fluently, and derive and ~~use related facts up to 100~~
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
show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
Number - multiplication and division
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.
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 (×), division (÷) 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
Number - fractions
recognise, find, name and write fractions 1/3 , 1/3 , 2/3 and 3/4 of a length, shape, set of objects or quantity

write simple fractions for example, 1/2 of 6 = 3 and recognise the equivalence of 2/4 and 1/2 .
Measurement
choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°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
solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
compare and sequence intervals of time
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
know the number of minutes in an hour and the number of hours in a day.
Geometry - properties of shape
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
Geometry - position and direction
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)
Statistics
interpret and construct simple pictograms, tally charts, block diagrams and simple tables
ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
ask and answer questions about totalling and comparing categorical data

Year 2 Yearly Overview	
Autumn 1	Autumn 2
Number and Place Value Addition and Subtraction	Addition and Subtraction Multiplication and Division
Spring 1	Spring 2
Multiplication and Division	Geometry - properties of shape Addition and Subtraction Money
Summer 1	Summer 2
Fractions Measurement - time	Measurement - length, mass, capacity, temperature Geometry - position and direction Multiplication and Division

National Curriculum Attainment Targets taught in Year 3

Number - number and place value
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
Number - addition and subtraction
recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
add and subtract numbers mentally, including:
a three-digit number and ones
a three-digit number and tens
a three-digit number and hundreds
add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction
estimate the answer to a calculation and use inverse operations to check answers
solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
Number - multiplication and division
recall and use multiplication and division facts for the 4 and 8 multiplication tables
write and calculate mathematical statements for multiplication and division using the multiplication tables that they know
Number - fractions
recognise, find and write fractions of a discrete set of objects: unit fractions and non unit fractions with small denominators
recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators
add and subtract fractions with the same denominator within one whole [for example, 5/7 + 1/7 = 6/7]
compare and order unit fractions, and fractions with the same denominators
solve problems that involve all of the above.
Measurement
measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
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].
Geometry - properties of shape
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.
Statistics
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 3 Yearly Overview	
Autumn 1	Autumn 2
Number and Place Value	Number and Place Value Addition and Subtraction
Spring 1	Spring 2
Addition Multiplication and Division	Multiplication and Division Subtraction Fractions
Summer 1	Summer 2
Fractions	Geometry - properties of shape Measurement - time

National Curriculum Attainment Targets taught in Year 4

Number - number and place value
count in multiples of 6, 7, 9, 25 and 1000
find 1000 more or less than a given number
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.
read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
Number - addition and subtraction
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.
Number - multiplication and division
recall and use multiplication and division facts for the 3 multiplication tables
recall multiplication and division facts for multiplication tables up to 12 × 12
solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit
Number - fractions
add and subtract fractions with the same denominator
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, /52 + 4/5 = 6/5 = 1 1/5]
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
Measurement
measure the perimeter of simple 2-D shapes
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
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
measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres

Geometry - properties of shape
compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes
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.
distinguish between regular and irregular polygons based on reasoning about equal sides and angles
measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
Geometry - position and direction
describe positions on a 2-D grid as coordinates in the first quadrant
describe movements between positions as translations of a given unit to the left/right and up/down
plot specified points and draw sides to complete a given polygon
Statistics
interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.
solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs

Year 4 Yearly Overview	
Autumn 1	Autumn 2
Addition and Subtraction Number and Place Value	Measurement - area and perimeter Multiplication and Division
Spring 1	Spring 2
Multiplication and Division	Multiplication and Division Geometry - properties of shape Measurement - time
Summer 1	Summer 2
Fractions	Geometry - position and direction Statistics Division

National Curriculum Attainment Targets taught in Year 5

Number - number and place value
count backwards through zero to include negative numbers
interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero
solve number problems and practical problems that involve all of the above
use negative numbers in context, and calculate intervals across zero
Number - multiplication and division
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
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
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 and integer scaling problems
identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
know and use the vocabulary of prime numbers, prime factors and composite (non prime) numbers
establish whether a number up to 100 is prime and recall prime numbers up to 19
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
multiply and divide numbers mentally drawing upon known facts
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
multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)
solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes
solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates
identify common factors, common multiples and prime numbers
Number - fractions
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
recognise and show, using diagrams, equivalent fractions with small denominators
recognise and show, using diagrams, families of common equivalent fractions
count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.

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
recognise and write decimal equivalents of any number of tenths or hundredths
recognise and write decimal equivalents to 1/4 , 1/2 , 3/4
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
round decimals with one decimal place to the nearest whole number
compare numbers with the same number of decimal places up to two decimal places
solve simple measure and money problems involving fractions and decimals to two decimal places
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
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 = 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
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
Measurement
add and subtract amounts of money to give change, using both £ and p in practical contexts
find the area of rectilinear shapes by counting squares
estimate, compare and calculate different measures, including money in pounds and pence
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
calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes
estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water]
solve problems involving converting between units of time
use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.
solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate
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
convert between miles and kilometres
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
calculate the area of parallelograms and triangles
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].
Geometry - properties of shape
identify acute and obtuse angles and compare and order angles up to two right angles by size
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 1/2 a turn (total 180o)
other multiples of 90o
use the properties of rectangles to deduce related facts and find missing lengths and angles
Geometry - position and direction
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
Statistics
solve comparison, sum and difference problems using information presented in a line graph
complete, read and interpret information in tables, including timetables.

Year 5 Yearly Overview	
Autumn 1	Autumn 2
Decimals Money	Negative numbers Multiplication Division
Spring 1	Spring 2
Measurement - area and perimeter Multiplication and division Decimal calculation	Measurement - volume Properties of Number Fractions
Summer 1	Summer 2
Fractions	Measurement - converting units Geometry - properties of shape Geometry - position and direction

National Curriculum Attainment Targets taught in Year 6

Number - number and place value
read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit
count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
add and subtract numbers mentally with increasingly large numbers
use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy
solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
round any whole number to a required degree of accuracy
solve number and practical problems that involve all of the above
Number - addition and subtraction, multiplication and division
solve problems involving multiplying and adding, including harder correspondence problems such as n objects are connected to m objects.
solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
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
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.
Number - fractions
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, /52 + 4/5 = 6/5 = 1 1/5]
add and subtract fractions with the same denominator and denominators that are multiples of the same number
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 1/2 , 1/4 , 1/5 , 2/5 , 4/5 and those fractions with a denominator of a multiple of 10 or 25
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, 1/4 × 1/2 = 1/8]

divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6]
associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8]
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.
Ratio and Proportion
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
solve problems involving similar shapes where the scale factor is known or can be found
solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
Algebra
use simple formulae
generate and describe linear number sequences
express missing number problems algebraically
find pairs of numbers that satisfy an equation with two unknowns
enumerate possibilities of combinations of two variables.
Measurement
measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
Geometry - properties of shape
distinguish between regular and irregular polygons based on reasoning about equal sides and angles
draw 2-D shapes using given dimensions and angles
recognise, describe and build simple 3-D shapes, including making nets
compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons
illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.
Geometry - position and direction
describe positions on the full coordinate grid (all four quadrants)
draw and translate simple shapes on the coordinate plane, and reflect them in the axes.
Statistics
interpret and construct pie charts and line graphs and use these to solve problems

calculate and interpret the mean as an average.

Year 6 Yearly Overview	
Autumn 1	Autumn 2
Number and Place Value Calculation Strategies	Number and Place Value Geometry - properties of shape Calculation Strategies
Spring 1	Spring 2
Multiplication Division Calculation Strategies Measurement - area and perimeter Geometry - position and direction Fractions	Fractions Statistics
Summer 1	Summer 2
Revision Ratio and Proportion*	Calculation Strategies* Algebra* Combining Operators* Mean Average*
*concepts previously explored in preparation for KS2 assessments. The period between testing and the end of the year are used to return to these concepts and consolidate understanding.	