Year 1			
National Curriculum	**Topic**	**Term**	**Skills/Small steps**
• 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.	Number and place value	Autumn	• Sort objects • Count objects • Represent objects • Count, read and write forwards from nay number 0 to 100 • Count, read and write backwards from any number 0 – 100 • Count one more and one less • One – to -one correspondence to start to compare groups • Compare groups using language such as equal, more, greater, less and fewer • Introduce >, < and = • Compare numbers • Ordinal numbers (1st, 2nd…) • Number line
		Autumn	• Count forwards and backwards and write numbers to 20 in numerals and words • Numbers from 11 to 20 • Tens and ones • Count one more and one less • Compare groups of objects • Compare numbers • Order groups of objects • Order numbers
		Spring	• Numbers to 50 • Tens and ones • Representing numbers to 50 • One more and one less r • Compare objects to 50 • Compare numbers to 50 • Order numbers to 50 • Count in 2s • Count in 5s
		Summer	• Counting forwards and backwards to within 100 • Partitioning numbers • Comparing numbers • Ordering numbers • One more and one less
• read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs • represent and use number bonds and related subtraction facts within 20 • add and subtract one-digit and two-digit numbers to 20, including 0 • solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? − 9	Addition and subtraction	Autumn	• Part whole model • Addition symbol • Fact families – addition facts • Find number bonds within 10 • Number bonds to 10 • Compare number bonds

			• Addition – adding together • Addition – adding more • Finding a part • Subtraction – taking away, how many left? Crossing out • Subtraction taking away, how many left? Introducing the symbol • Subtraction – finding a part, breaking apart • Fact families – 8 facts • Subtraction – counting back
		Spring	• Adding by counting on • Find and make number bonds • Add by making 10 • Subtraction – not crossing 10 • Related facts • Compare number sentences
• 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	Multiplication and Division	Spring	• Count in 2s • Count in 5s • Count in 10s • Make equal groups • Add equal groups • Make arrays • Make double • Make equal groups – groupings • Make equal groups – sharing
• recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity • recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity	Fractions	Spring	• Finding half • Finding a quarter
• 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]	Measurement	Spring	• Compare lengths and height • Measure length • Measure mass • Compare mass • Measure capacity • Compare capacity
• 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]		Summer	• Recognising coins • Recognising notes • Counting in coins • Before and after • Dates • Time to the hour • Time to the half hour • Writing time

• 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			• Comparing time
• 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 – shape	Autumn	• Recognise and name 3-D shapes • Sort 3-D shapes • Recognise and name 2-D shapes • Sort 2-D shapes • Patterns with 3-D and 2-D shapes
• describe position, direction and movement, including whole, half, quarter and three-quarter turns	Geometry – position and direction	Summer	• Describe position • Describe turns

Year 2			
National Curriculum	**Topic**	**Term**	**Skills/Small steps**
• count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward • recognise the place value of each digit in a two-digit number (10s, 1s) • 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 and Place Value	Autumn	• Counting forwards and backwards within 20 recap • Tens and ones within 20 recap • Counting forwards and backwards within 50 recap • Tens and ones within 50 recap • Compare numbers to 50 recap • Count objects to 100 and read and write numbers in numerals and words • Represent numbers to 100 • Tens and ones with a part-whole model • Tens and ones using addition • Use a place value chart • Compare objects • Compare numbers • Order objects and numbers • Counting in 2s,5s, 10s recap • Count in 3s
• 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 1s	Addition and subtraction	Autumn	• Add by making 10 recap • Subtraction by crossing 10 recap • Subtract a 2-digit number from a 2-digit number – not crossing ten • Subtract a 2-digit number from a 2-digit number – crossing tens • Find and make number bonds recap • Bonds to 100 – tens and ones • Add three 1-digit numbers

• a two-digit number and 10s • 2 two-digit numbers • adding 3 one-digit numbers • show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot • recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems			
• 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 2 numbers can be done in any order (commutative) and division of 1 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	Multiplication and Division	Autumn	• Make qual groups recap • Add equal groups recap • Make array recap
		Spring	• Recognise equal groups • Make equal groups • Add equal groups • Multiplication sentences using the x symbol • Multiplication sentences from pictures • Use arrays • Make doubles recap • 2 times table • 5 times table • 10 times table • Make equal groups – sharing • Make equal groups – grouping • Divide by 2 • Odd and even numbers • Divide by 5 • Divide by 10
• 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 $\frac{1}{2}$	Fractions	Spring	• Make equal groups • Recognise a half • Find a half • Recognise a quarter • Find a quarter • Recognise a third • Find a third • Unit fractions • Non-unit fractions • Equivalence of ½ and 2/4 • Find three quarter • Count in fractions
• 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 =	Measurements	Autumn	• Recognise coins and notes recap • Count money – pence • Count money – pounds • Count money – note and coins • Select money • Make the same amount

• 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			• Compare • Find the total • Find the difference • Find change • Two-step word problems
		Summer	• Compare lengths and heights recap • Measure lengths (CM and M) • Compare lengths • Order lengths • Four operations with lengths • Telling the time to the hour recap • Telling time to the half hour recap • O'clock and half past • Quarter past and Quarter to • Telling time to 5 minutes • Writing time • Hours and days • Find duration of time • Compare duration of time • Measure mass • Compare mass • Measure mass in grams • Measure mass in kilograms • Measure capacity and volume • Measure capacity • Compare volume • Millilitres • Litres • Temperature
• 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	Shape	Spring	• Recognise 2-D and 3-D shapes • Count sides on 2-D shapes • Count vertices on 2-D shape • Draw 2-D shapes • Lines of symmetry • Sort 2-D shapes • Make patterns with 2-D shapes • Count faces on 3-D shapes • Count edges on 3-D shapes • Count vertices on 3-D shapes • Sort 3-D shapes • Make patterns with 3-D shapes

• 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 anti-clockwise)	Position and direction	Summer	• Describe position • Describe movement • Describe turn • Describe movement and turns • Making patterns with shapes
• interpret and construct simple pictograms, tally charts, block diagrams and 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	Statistics	Spring	• Make a tally chart • Draw pictograms • Interpret pictograms • Draw pictograms • Interpret pictograms • Block diagrams

Year 3			
National Curriculum	**Topic**	**Term**	**Skills/Small steps**
• 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 3-digit number (100s, 10s, 1s) • compare and order numbers up to 1,000 • identify, represent and estimate numbers using different representations • read and write numbers up to 1,000 in numerals and in words • solve number problems and practical problems involving these ideas	Number and Place Value	Autumn	• Represent numbers to 100 recap • Tens and ones using addition recap • Hundreds • Represent numbers to 1000 • 100s, 10s and 1s • Number line to 1000 • Find 1, 10, 100 more or less than a given number • Compare objects and numbers to 1000 • Order numbers • Count in 50s
• add and subtract numbers mentally, including: • a three-digit number and 1s • a three-digit number and 10s • a three-digit number and 100s • add and subtract numbers with up to 3 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	Addition and subtraction	Autumn	• Add and subtract multiples of 100 • Add and subtract 1s recap • Add and subtract 3-D and 1-D numbers (not crossing tens) • Add a 2-D and 1-D number (crossing 10) • Add 3-D and 1-D (crossing 10) • Subtract 1-D number from 2-D (crossing tens) • Subtract a 1-D number from a 3-D (crossing 10) • Add and subtract 3-D and 2-D numbers (not crossing 100) • Add 3-D and 2-D numbers (crossing 100) • Subtract a 2-D number from a 3-D number (crossing 100) • Add and subtract 100s • Patterns • Add two 2-D numbers (crossing tens -add ones and add tens) • Subtract a 2-D number from a 2-D number – crossing 10
• recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	Multiplication and Division	Autumn	• Equal groups for multiplication • Multiplication using the symbol recap • Using arrays recap

• 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			• 2,5 and 10 times table recap • Equal groups for sharing recap • Make equal groups – grouping recap • Dived by 2, 5 and 10 recap • Multiple and divide by 3 • 3 times table • Multiple and divide by 4 • 4 times table • Multiple and divide by 8 • 8 times table
		Spring	• 3, 4 and 8 times tables • Comparing stements • Related calculations • Mulplity 2-D by 1-D • Divide 2-D by 1-D • Scaling
• 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, 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 • recognise and show, using diagrams, equivalent fractions with small denominators • add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$] • compare and order unit fractions, and fractions with the same denominators • solve problems that involve all of the above	Fractions	Spring (recap)	• Make equal parts • Recognise half and quarter • Find half and quarter • Recognise and find a third • Unit fractions • Non-unit fractions • Equivalence of ½ and 2/4 • Count in fractions
		Summer	• Making the whole • Tenths • Count in tenths • Tenths as decimals • Fractions on a number line • Fractions of a set of objects • Equivalent fractions • Compare fractions • Order fractions • Add and subtract fractions
• 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, am/pm, morning, afternoon, noon and midnight	Measurement	Spring	• Count money in pence and pounds recap • Convert pounds and pence • Add money • Subtract money • Give change • Measure length • Equivalent lengths m and cm mm and cm • Compare lengths recap • Add lengths • Subtract lengths • Measure perimeter

• 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			• Calculate perimeter
		Summer	• O'clock and half past recap • Quarter past and quarter to recap • Months and years • Hours in the day • Telling the time to 5 minutes • Telling the time to the minute • Using a.m. and p.m. • 24-hour clock • Finding the duration • Comparing durations • Start and end times • Measuring time in seconds • Compare mass • Measure mass • Add and subtract mass • Compare volume • Measure capacity • Compare compacity • Add and subtract capacity • Temperature
• 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 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 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	Shape	Autumn	• Turns and angles • Right angles in shapes • Compare angles • Draw accurately • Horizontal and vertical • Parallel and perpendicular • Recognise and describe 2-D shapes • Recognise and describe 3-D shapes • Make a 3-D shape
• 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	Statistics	Spring	• Make a tally chart • Draw pictograms • Interpret pictograms • Bar charts • Tables

Year 4

National Curriculum	Topic	Term	Skills/Small steps
• count in multiples of 6, 7, 9, 25 and 1,000 • find 1,000 more or less than a given number • count backwards through 0 to include negative numbers • recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) • order and compare numbers beyond 1,000 • identify, represent and estimate numbers using different representations • round any number to the nearest 10, 100 or 1,000 • 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 0 and place value	Number and Place Value	Autumn	• Represent numbers to 1000 recap • 100s, 10s and 1s recap • Number line to 1000 recap Round to the nearest 10 • Round to nearest 100 • Count in 1000s • 1000s, 100s, 10s and 1s • Partitioning numbers • Number line to 10,000 • Find 1, 10, 100 more or less • 1000 more and less • Compare numbers • Order numbers • Round to the nearest 1000 • Count in 25s • Negative numbers • Roman numerals to 100
• 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	Addition and subtraction	Autumn	• Add and subtract 1s, 10s,100s and 1000s • Add two 3-digit numbers – not crossing 10 or 100 • Add two 4-digit numbers – no exchange • Add two 3-digit numbers – crossing 10 and 100 • Add two 4-digit – one exchange • Add two 4-digit numbers – more than one exchange • Subtract a 3-digit number from a 3-digit number – no exchange • Subtract two 4-digit numbers – no exchange • Subtract a 3-digit number from a 3-digit number – exchange • Subtract two 4 digit numbers – one exchange • Subtract two 4-digit numbers – more than one exchange • Estimate answers • Checking strategies
• 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 3 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 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	Multiplication and Division	Autumn	• Multiply by 10 • Multiply 100 • Divide by 10 • Divide by 100 • Multiply by 1 and 0 • Divide by 1 and itself • Multiply and divide by 3 • 3 times table recap • Multiply and divide by 6 • 6 times table and division facts • Multiply and divide by 9 • 9 times table and division facts • Multiply and divide by 7 • 7 times table and division facts

		Spring	• 11 and 12 times table • Muliple 3 numbers • Factor pairs • Effiecent multiplication • Written method • Multiple 2-digits by 1-digit • Multiple 3-digts by 1-digit • Divide 2-digits by 1-digit • Divide 3-digt by 1-digit • Corresepondance problems
• 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 100 and dividing tenths by 10 • 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 • add and subtract fractions with the same denominator • recognise and write decimal equivalents of any number of tenths or hundreds • recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ • 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 1 decimal place to the nearest whole number • compare numbers with the same number of decimal places up to 2 decimal places • solve simple measure and money problems involving fractions and decimals to 2 decimal places	Fractions and decimals	Spring	• Unit and non-unit fractions • What is a fraction? • Tenths • Count in tenths • Equivalent fractions • Fractions greater than 1 • Count in fractions • Add fractions • Add 2 or more fractions • Subtract fractions • Subtract 2 fractions • Subtract from whole amounts • Fractions of a set of objects • Calculate fractions of a quality • Problem solving • Recognise tenths and hundredths • Tenths and decimals • Tenths on a place value grid • Tenths on a number line • Divide 1-digit by 10 • Divide 2-digt by 10 • Hundredths as decimals • Hundredths on a place value grid • Divide 1 or 2-digts by 100
		Summer	• Bonds to 10 and 100 • Make a whole • Write a decimal • Compare decimals • Order decimals • Round decimals • Halves and quarters
• convert between different units of measure [for example, kilometre to metre; hour to minute]	Measurement	Autumn	• Equivalent lengths m and cm • Equivalent lengths mm and cm • Kilometres • Add lengths

• 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			• Subtract lengths • Measure perimeter • Perimeter on a grid • Perimeter • Of a rectangle • Perimeter of rectilinear shapes
		Spring	• What is area? • Counting squares • Making shapes • Comparing area
		Summer	• Pounds and pence • Ordering money • Estimating money • Convert pounds and pence • Add money • Subtract money • Find change • Four operations • Telling the time to 5 minutes • Telling the time to the minute • Using a.m. and p.m. • 24-hour clock • Hours, minutes and seconds • Years, months, weeks and days • Analogue to digital – 12 hour • Analogue to digital – 24 hours
• 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 2 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	Shape	Summer	• Turns and angles • Right angles in shapes • Compare angles • Identify angles • Compare and order angles • Recognise and describe 2-D shapes • Triangles • Quadrilaterals • Horizontal and vertical • Lines of symmetry • Complete a symmetric figure
• 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	Position and direction	Summer	• Describe position • Draw on a grid • Move on a grid • Describe movement on a grid
• 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 graph	Statistics	Summer	• Interpret charts • Comparison, sum and difference • Introduce line graphs • Line graphs

Year 5			
National Curriculum	**Topic**	**Term**	**Skills/Small steps**
• 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 • interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0 • round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 • solve number problems and practical problems that involve all of the above • read Roman numerals to 1,000 (M) and recognise years written in Roman numerals	Number and Place value	Autumn	• 1000s, 100s, 10s and 1s recap • Numbers to 10,000 • Rounding to nearest 10 and 100 recap • Round to nearest 10,100 and 1000 • Numbers to 100,000 • Compare and order numbers to 100,000 • Round numbers within 100, 000 • Numbers to a million • Counting in 10s, 100s, 1000s, 10,000s and 100,000s • Compare and order numbers to one million • Round numbers to one million • Negative numbers • Roman numerals to 1000
• 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	Addition and subtraction	Autumn	• Add two 4-digit numbers – one exchange recap • Add two 4-digit numbers – more than one exchange recap • Add whole numbers with more than 4 digits (column method) • Subtract two 4-digit numbers – one exchange recap • Subtract two 4-digit numbers – more than one exchange recap • Subtract whole numbers with more than 4 digits (column method) • Round to estimate and approximate • Inverse operations (add and sub) • Multi-step problems
• identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 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 1,000 • recognise and use square numbers and cube numbers, and the notation for squared (^{2}) and cubed (^{3})	Multiplication and division	Autumn	• Multiples • Factors • Common factors • Prime numbers • Square numbers • Cube numbers • Multiply by 10 recap • Multiply by 100 recap • Multiply by 10,100 and 1000 • Divide by 10 recap • Divide by 100 recap • Divide by 10, 100, 1000 • Multiples of 10, 100 and 1000
		Spring	• Multiply 2 and 3-digit numbers by 1 recap • Multiply 3-digits by 1-digit

• solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes • solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates			• Multiply 2-digits (area model) • Multiply 2-digits by 2-digits • Multiply 3-digits by 2-digits • Multiply 4-digit by 2-digit • Divide 2-digits by 1-digit recap • Divide 3-digit by 1-digit recap • Divide 4-digits by 1-digit • Divide with remainders
• 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 2 decimal places to the nearest whole number and to 1 decimal place • read, write, order and compare numbers with up to 3 decimal places • solve problems involving number up to 3 decimal places • recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction • 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	Fractions, decimals and percentages	Spring	• Equivalent fractions recap • Fractions greater than 1 recap • Improper fractions to mixed numbers • Mixed numbers to improper fractions • Number sequences • Compare and order fractions less than 1 • Compare and order fractions greater than 1 • Add and subtract fractions • Ass fractions within 1 • Add 3 or more fractions • Add fractions • Add mixed numbers • Subtract fractions • Subtract mixed numbers • Subtract – breaking the whole • Subtract 2 mixed numbers • Multiply unit fractions by an integer • Multiply non-unit fractions by an integer • Multiply mixed numbers by integers • Calculate fractions of a quantity • Fraction of an amount • Using fractions as operators • Decimals up to 2 d.p • Decimals as fractions • Understand thousandths • Thousandths as decimals • Rounding decimals • Order and compare decimals • Understand percentages • Percentages as fractions and decimals • Equivalent F.D.P
		Summer	• Adding decimals within 1 • Subtracting decimals within 1 • Complements to 1 • Adding decimals – crossing the whole • Adding decimals with the same number of decimal places • Subtracting decimals with the same number of decimal places

			• Adding decimals with a different number of decimal places • Subtracting decimals with a different number of decimal places • Adding and subtracting wholes and decimals • Decimal sequences • Multiplying decimals by 10, 100 and 1000 • Dividing decimals by 10, 100 and 1000
• 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), 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	Measurement	Autumn	• Measure perimeter • Perimeter on a grid recap • Perimeter of rectangles recap • Calculate perimeter • Counting squares • Are of rectangles • Area of compound shapes • Area of irregular shapes
		Summer	• Kilometres recap • Kilograms and kilometres • Millimetres and millilitres • Metric units • Imperial units • Converting units off time • Timetable • Compare volume • Estimate volume • Estimate capacity
• 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 (°) • identify: • angles at a point and 1 whole turn (total 360°) • angles at a point on a straight line and half a turn (total 180°) • other multiples of 90° • 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	Shape	Summer	• Identify angles recap • Compare and order angles • Measure angles in degrees • Measure with a protractor • Drawing lines and angles on a straight line • Calculating angles on a straight line • Calculate angles around a point • Triangles and quadrilaterals recap • Calculating lengths and angles in shapes • Regular and irregular polygons • Reasoning about 3-D shapes
• 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	Position and direction	Summer	• Describe position recap • Draw on a grid recap • Position in the first quadrant • Translation • Translation with coordinates • Lines of symmetry recap • Complete symmetric figure recap • Reflection

			• Reflection with coordinates
• solve comparison, sum and difference problems using information presented in a line graph • complete, read and interpret information in tables, including timetables	Statistics	Autumn	• Interpret charts recap • Comparison, sum and difference recap • Introduce line graphs recap • Read and interpret line graphs • Draw line graphs • Use line graphs to solve problems • Read and interpret tables • Two-way table • Time tables

Year 6			
National Curriculum	**Topic**	**Term**	**Skills/Small steps**
• read, write, order and compare numbers up to 10,000,000 and determine the value of each digit • round any whole number to a required degree of accuracy • use negative numbers in context, and calculate intervals across 0 • solve number and practical problems that involve all of the above	Number and place value	Autumn	• Numbers to 10,000 recap • Numbers to 100,000 recap • Numbers to a million recap • Numbers to ten million • Compare and order any number • Round numbers to 10,100 and 1000 • Round any number • Negative numbers
• 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 4 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	Addition, subtraction, multiplication and division	Autumn	• Add and subtract whole numbers with more than 4-digits recap • Inverse operations recap • Multi-step addition and subtraction problems recap • Add and subtract integers • Multiply 4-digits by 1-digit, 2-digits by 2-digits, 3-digits by 2-digits recap • Multiply up to a 4-digit number by 2-digit number • Divide 4-digits by 1-digits recap • Divide with remainders • Short division • Division using factors • Long division • Factors • Common factors • Common multiples • Primes to 100 • Squares and cubes • Order of operations • Mental calculations and estimation

			• Reason from known facts
• 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 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places • multiply one-digit numbers with up to 2 decimal places by whole numbers • use written division methods in cases where the answer has up to 2 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	Fractions including decimals and percentages	Autumn	• Equivalent fractions recap • Simplify fractions • Improper fractions to mixed numbers recap • Mixed numbers to improper fractions recap • Fractions on a number line • Compare and order • Add and subtract fractions • Add mixed fractions recap • Add fractions • Subtract mixed numbers recap • Subtract fractions
		Spring	• Decimals up to 2 decimal places recap • Understanding thousandths recap • Three decimal places • Multiply by 10,100 and 1000 • Divide by 10, 100 and 1000 • Multiply decimals by integers • Divide decimals by integers • Division to solve problems • Decimals as fractions • Fractions to decimals • Understanding percentages recap • Fractions as percentages • Equivalent FDP • Order FDP • Percentage of an amount • Percentage – missing values
• solve problems involving the relative sizes of 2 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	Ratio and proportion	**Spring**	• Using ratio language • Ratio and fractions • Introducing the ratio symbol • Calculating ratio • Using scale factors • Calculating scale factors • Ratio and proportion problems
• use simple formulae • generate and describe linear number sequences • express missing number problems algebraically • find pairs of numbers that satisfy an equation with 2 unknowns • enumerate possibilities of combinations of 2 variables	Algebra	**Spring**	• Find a rule • Forming expressions • Substitution • Formulae • Forming equations • Solve simple one-step and two-step equations • Find pairs of values • Enumerate possibilities

• solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 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 3 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]	Measurement	**Spring**	• Metric measures • Convert metric measures • Calculate with metric measures • Miles and kilometres • Imperial measures • Area dn perimeter • Area of and triangle • Area of parallelogram • What is volume? • Volume – counting cubes • Volume of a cuboid
• 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	Shape	**Summer**	• Measure with a protractor • Draw lines and angles accurately recap • Introduce angles • Angles on a straight line recap • Angles around a point recap • Calculate angles • Vertically opposite angles • Angles in a triangle • Angles in a triangle – missing angles and special cases • Angles in special quadrilaterals • Area in regular polygons • Draw shapes • Draw nets of 3-D shape
• describe positions on the full coordinate grid (all 4 quadrants) • draw and translate simple shapes on the coordinate plane, and reflect them in the axes	Position and direction	**Autumn**	• The first quadrant • Four quadrants • Translation • Reflections
• interpret and construct pie charts and line graphs and use these to solve problems • calculate and interpret the mean as an average	Statistics	**Summer**	• Read and interpret line graphs • Draw line graphs • Use line graphs to solve problems • Circles • Read and interpret pie charts • Pie charts with percentages • Draw a pie chart • The mean