	Year 3	Year 4	Year 5	Year 6
Autumn 1				
Week 1	**Recap of Year 2** **Multiplication** **Division** **Number bonds**	**Year 3 recap** – *add/subtract* *Presentation and organisation* *Number formation.*	**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	Read write and understand value of digits Round numbers
Week 2	**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 a 3 digit number	**Place Value** *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.* *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)*	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	Compare and order numbers Round numbers
Week 3	**Place Value** compare and order numbers up to 1000 read and write numbers up to 1000 in numerals and in words	**Place Value** *round any number to the nearest 10, 100 or 1000* *recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones)* *identify, represent and estimate numbers using different representations*	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.	Use negative numbers
Week 4	**Place Value** identify, represent and estimate numbers using different representations	**Addition** *add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate* *solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.*	**Addition and subtraction** Add and subtract whole numbers with more than 4 digits,including using formal written methods (columnar addition and subtraction) Ma5/2.2b add and subtract numbers mentally with increasingly large numbers	Add and subtract using columns Multiply 4 x 2 digits

Week 5	**Addition and Subtraction** **a three-digit number and ones** solve number problems and practical problems involving these ideas	**Subtraction** *add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate*	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.	Use factors to divide
Week 6	**Addition and Subtraction** **a three-digit number and ones** Add and subtract numbers mentally including a 3 digit number and 1s and using formal written methods	**Subtract** *solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.* *estimate and use inverse operations to check answers to a calculation*	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.	Identify common factors and multiples Use long division effectively Identify prime numbers
Week 7	**Addition and Subtraction** **a three-digit number and tens** Add and subtract numbers mentally including a 3 digit number and 10s and using formal written methods		**Statistics** solve comparison, sum and difference problems using information presented in a line graph Complete, read and interpret information in tables, including timetables.	Explore square and cube numbers BODMAS
Week 8	Consolodation		**Consolodation**	
Autumn 2				
Week 1	**Addition and subtraction** **a three-digit number and tens** Add and subtract numbers including 3 digits and 10s mentally and using formal written methods	**Consolidation** PLACE VALUE count backwards through zero to include negative numbers round any number to the nearest 10, 100 or 1000 ADDITION/SUBTRACTION estimate and use inverse operations to check answers to a calculation		**Number – Four Operations** COLD TASK – FRACTIONS Perform mental calculations, including with mixed operations and large numbers. Solve problems involving multiplication and division including using knowledge of

		solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.		factors and multiples, squares and cubes.
Week 2	**Addition and subtraction a three-digit number and hundreds** Add and subtract numbers including 3 digits and 100s mentally and using formal written methods	**Measurement** Convert between different units of measure [for example, kilometre to metre; hour to minute] measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres find the area of rectilinear shapes by counting squares		**Fractions** • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. • Compare and order fractions whose denominators are all multiples of the same number.
Week 3	**Addition and subtraction a three-digit number and hundreds** Add and subtract numbers including 3 digits and 100s mentally and using formal written methods	**Multiplication**		• Compare and order fractions, including fractions > 1. • Generate and describe linear number sequences. • Add and subtract fractions with the same denominator and denominators that are multiples of the same number.
Week 4	**Addition and subtraction** add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction	**Division**		• Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. • Multiply simple pairs of proper fractions, writing the answer in its simplest form.

Week 5	**Multiplication and division** recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	**Multiplication/Division** recall multiplication and division facts for multiplication tables up to 12 × 12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers recognise and use factor pairs and commutativity in mental calculations multiply two-digit and three-digit numbers by a one-digit number using formal written layout solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects		• Divide proper fractions by whole numbers.
Week 6	**Multiplication and division** recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables	Test Week **Use Roman Numerals** Read Roman numerals to 10		TEST WEEK – Maths SATs papers • Associate a fraction with division and calculate decimal fraction equivalents. • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
Week 7	**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	**Multiplication/Division**		**Consolidation**

	progressing to formal written methods			
Spring 1				
Week 1	recognise, find, name and write fractions 3 1 , 4 1 , 4 2 and 4 3 of a length, shape, set of objects or quantity	**Multiplication/Division** recall multiplication and division facts for multiplication tables up to 12 × 12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers recognise and use factor pairs and commutativity in mental calculations multiply two-digit and three-digit numbers by a one-digit number using formal written layout solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	**Multiplication and division** Multiply numbers up to 4 digits by a one or two digit number using a formal written method, including long multiplication for 2-digit numbers. Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign.	• Add, subtract, multiply and divide fractions Associate a fraction with division and calculate decimal fraction equivalents. • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. Multiply 1-digit numbers with up to 2 decimal places by whole numbers.
Week 2	write simple fractions for example, 2 1 of 6 = 3 and recognise the equivalence of 4 2 and 2 1 .	**Multiplication/Division** recall multiplication and division facts for multiplication tables up to 12 × 12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers recognise and use factor pairs and commutativity in mental calculations multiply two-digit and three-digit numbers by a one-digit number using formal written layout solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit,	Divide numbers up to 4 digits by a 1digit number using the formal written method of short division and interpret remainders appropriately for the Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign. context.	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.

		integer scaling problems and harder correspondence problems such as n objects are connected to m objects		
Week 3	Pupils should count in fractions up to 10, starting from any number and using the 2 1 and 4 2 equivalence on the number line (for example, 1 4 1 , 1 4 2 (or 1 2 1), 1 4 3 , 2). This reinforces the concept of fractions as numbers and that they can add up to more than one.	**Multiplication/Division** recall multiplication and division facts for multiplication tables up to 12 × 12 use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers recognise and use factor pairs and commutativity in mental calculations multiply two-digit and three-digit numbers by a one-digit number using formal written layout solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects	Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign. Multiply and divide numbers mentally drawing upon known 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.
Week 4	choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm)	**Area** Find the area of rectilinear shapes by counting squares.	Consolidation	Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.
Week 5	compare and order lengths	**Area** Find the area of rectilinear shapes by counting squares.	**Fractions** 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 2 5 + 4 5 = 6 5 = 1 1 5	Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically.
Week 6	Comparing measures includes simple multiples such as 'half as high'; 'twice as wide'.	**Area** Find the area of rectilinear shapes by counting squares.	**Fractions** Compare and order fractions whose denominators are multiples of the same number.	Describe the ways in which nutrients and water are transported within animals, including humans.

			Add and subtract fractions with the same denominator and denominators that are multiples of the same number.	
Week 7	calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs	**Consolidation**	**Fractions** Add and subtract fractions with the same denominator and denominators that are multiples of the same number. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	Consolidation
Spring 2				
Week 1	show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot	**Fractions** 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. Add and subtract fractions with the same denominator.	**Fractions** Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.	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.
Week 2	solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	**Fractions** 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. Add and subtract fractions with the same denominator.	**Fractions** **Consolidation**	Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm3 , m3 and extending to other units (mm3 , km3)
Week 3	compare and sequence intervals of time	**Fractions**	**Decimals and percentages**	Solve problems involving the relative sizes of two quantities

		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. Add and subtract fractions with the same denominator.	Read, write, order and compare numbers with up to three decimal places Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.	where missing values can be found by using integer multiplication and division facts.
Week 4	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	**Fractions** 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. Add and subtract fractions with the same denominator.	**Decimals and percentages** Recognise the percent 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 25History Topic Link: TASK: Calculating the distance that a rat may have travelled in spreading black death disease. *Skill: Convert between different units of metric measure.* *Covert between miles and kilometres.*	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
Week 5	know the number of minutes in an hour and the number of hours in a day.	**Decimals** Recognise and write decimal equivalents of any number of tenths or hundredths. Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths Solve simple measure and money problems involving fractions and decimals to two decimal	**Test week**	**Four number skills review and arithmetic**

		places. Convert between different units of measure [for example, kilometre to metre]		
Week 6	They become fluent in telling the time on analogue clocks and recording it.	**<u>Decimals</u>** Recognise and write decimal equivalents of any number of tenths or hundredths. Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths Solve simple measure and money problems involving fractions and decimals to two decimal places. Convert between different units of measure [for example, kilometre to metre]	**Consolidation**	**Sats testing and review**