Class 3

Autumn 1	Year 3	Year 4
Number and place value 1 week	Recognise the place value of each digit in a three digit number Find 10 more or less than a given number Compare and order numbers to 1000 Read and write numbers to 1000 in numerals Solve number problems involving these concepts	Find 1000 more or less than a given number Recognise the place value of each digit in a 4 digit number Count in multiples of 6 or 9 Order and compare numbers beyond 1000 Identify, represent and estimate numbers using different representations
Number – Addition and subtraction 2 week	practise solving varied addition and subtraction questions. Add – Subtract - For mental calculations with two-digit numbers, the answers could exceed 100. * • add and subtract numbers mentally, including: – a three-digit number and ones – a three-digit number and tens • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction	practise mental methods with increasingly large numbers to aid fluency * • add numbers with up to four digits using the formal written method of columnar addition where appropriate • estimate answers to a calculation • solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why extend understanding of the number system and decimal place value to tenths * • recognise and write decimal equivalents of any number of tenths • 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 problems involving decimals to two decimal places
Number – Multiplication and division 2 weeks	• count from 0 in multiples of 4 and 8 • recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables • multiply two and three-digit numbers by a one-digit number using formal written layout Divide - • 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	• count in multiples of 7 • recall multiplication and division facts for multiplication tables up to 12 × 12 Recognise and use factor pairs and commutativity in mental calculations Count in multiple 25 and 100 • use place value, known and derived facts to multiply mentally, including: multiplying by 0 and 1; multiplying together three numbers • recognise and use factor pairs and commutativity in mental calculations • multiply two-digit numbers by a two-digit number using formal written layout Divide • solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit
Measurement – Time 1 week	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; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight	convert between different units of measure • 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
	Assess and review	

Autumn 2	Year 3	Year 4
Number – Fractions and decimals 2 weeks	recognise, find and write fractions of a discrete set of objects: unit and non-unit fractions with small denominators • recognise and use fractions as numbers: unit and non-unit fractions with small denominators • compare and order unit fractions and fractions with the same denominators Add and subtract fractions with the same denominator within one whole • solve problems that involve all of the above recognise and show, using diagrams, equivalent fractions with small denominators	extend the use of the number line to connect fractions, numbers and measures recognise and show, using diagrams, families of common equivalent fractions • understand the relation between non-unit fractions and multiplication and division of quantities, with particular emphasis on tenths and hundredths * • 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
Decimals 1 week	Objectives? Money?	extend understanding of the number system and decimal place value to hundredths * • recognise and write decimal equivalents of any number of hundredths • 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 • compare numbers with the same number of decimal places up to two decimal places
Measurement 1 week	measure, compare, add and subtract mass (kg/g)	convert between different units of measure • estimate, compare and calculate different measures 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 specifi ed points and draw sides to complete a given polygon
Geometry – Properties of shape 1 week	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 lines of symmetry in 2-D shapes presented in different orientations • complete a simple symmetric figure with respect to a specific line of symmetry identify acute and obtuse angles and compare and order angles up to two right angles by size
Statistics		
	Assess and review	

Spring 1	Year 3	Year 4
Number – Number and place value 1 week	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	count backwards through zero to include negative numbers • recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones) • order and compare numbers beyond 1000 • round any number to the nearest 10 or 100 • solve number and practical problems that involve all of the above and with increasingly large positive numbers
Number – Addition and Subtraction 2 weeks	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 • add and subtract amounts of money to give change, using both £ and p in practical contexts	practise mental methods with increasingly large numbers to aid fluency * • add and subtract numbers with up to four 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 2 weeks	count from 0 in multiples of 50 and 100; fi nd 100 more or less than a given number • recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables • 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	multiply 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
Measurement – Length, volume and capacity 1 week	measure, compare, add and subtract volume/capacity (l/ml) measure, compare, add and subtract lengths (m/cm/mm)	convert between different units of measure • estimate, compare and calculate different measures
	Assess and review	

Spring 2	Year 3	Year 4
Number – Number and place value 1 week	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	count backwards through zero to include negative numbers • recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones) • order and compare numbers beyond 1000 • 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
Number – Addition and subtraction 1 week	solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction • add and subtract amounts of money to give change, using both £ and p in practical contexts	practise mental methods with increasingly large numbers to aid fluency * • subtract numbers with up to four digits using the formal written method of columnar 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 – Fractions 1 week	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 show, using diagrams, equivalent fractions with small denominators • solve problems that involve all of the above	use factors and multiples to recognise equivalent fractions and simplify where appropriate • recognise and show, using diagrams, families of common equivalent fractions • add and subtract fractions with the same denominator • solve simple measure and money problems involving fractions
Measurement – Perimeter 1 week	Convert between units of length measure the perimeter of simple 2-D shapes	convert between different units of measure measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • find the area of rectilinear shapes by counting squares • relate area to arrays and multiplication
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	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
	Assess and Review	

Summer 1	Year 3	Year 4
Number – Addition and Subtraction 2 weeks	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 Add and subtract amounts of money to give change, using both £ and p in practical contexts	add and subtract numbers with up to four 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 • estimate, compare and calculate different measures, including money in pounds and pence
Number – Place value (Y3) Decimals (Y4) 1 week	recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • identify, represent and estimate numbers using different representations Begin to understand place value in decimal numbers • solve number problems and practical problems involving these ideas	extend understanding of the number system and decimal place value to tenths and then hundredths * • recognise and write decimal equivalents of any number of tenths or hundredths • recognise and write decimal equivalents to one quarter, one half, three quarters • 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 decimals to two decimal places
Measurement – Time 2 weeks	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]	convert between different units of measure • 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
	Review and assess	

Summer 2	Year 3	Year 4
Number – Multiplication and Division 2 weeks	write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods <mark>Divide</mark> • 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	multiply 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 use place value, known and derived facts to divide mentally, including dividing by 1 • practise to become fl uent in the formal written method of short division with exact answers * • 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
Geometry – Properties of shapes 2 weeks	draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them • identify horizontal and vertical lines and pairs of perpendicular and parallel lines draw 2-D shapes and describe them • recognise angles as a property of shape	identify lines of symmetry in 2-D shapes presented in different orientations • complete a simple symmetric fi gure with respect to a speci c line of symmetry identify acute and obtuse angles and compare and order angles up to two right angles by size draw 2-D shapes and describe them recognise angles as a property of shape compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes Position and direction - describe positions on a 2-D grid as coordinates in the first quadrant • plot specified points and draw sides to complete a given polygon
Statistics 1 week	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	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