Objective	Autumn	Spring	Summer
Number – number and place value			
read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit	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	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 zero	familiarise with negative numbers (consolidation)	negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero	
round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000	round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000		
solve number problems and practical problems that involve all of the above	include within other number, word & practical problems	include within other number, word & practical problems	include within other number, word & practical problems
read Roman numerals to 1000 (M) and recognise years written in Roman numerals	read Roman numerals to 1000 (M) and recognise years written in Roman numerals		
Number – addition and subtraction			
add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)	Consolidation of column addition & subtraction from Y4	Column addition & subtraction (any size number)	Column addition & subtraction (any size number)
add and subtract numbers mentally with increasingly large numbers	Consolidate (two digit numbers, and 3 digit numbers with 1s, 10s, 100s)	Add & subtract numbers mentally	Add & subtract numbers mentally
use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	Apply teaching of rounding to checking calculations	include within number, word & practical problems	include within number, word & practical problems
solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.		addition and subtraction multi-step problems	addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
Number – multiplication and division			

Objective	Autumn	Spring	Summer
identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers	multiples & factors	find all factor pairs	find common factors
know and use the vocabulary of prime numbers, prime factors and composite (non-prime) 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		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 numbers up to 4 digits by a one-digit number (Grid method → short multiplication)	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 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	multiply and divide numbers mentally drawing upon known facts	multiply and divide numbers mentally drawing upon known facts	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	divide numbers up to 4 digits by a one-digit number using the formal written method of short division	divide numbers up to 4 digits by a one-digit number using the formal written method of short division with remainders	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	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})		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	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 addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign

Objective	Autumn	Spring	Summer
solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates			solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates
Number – fractions (including decimals and percentages)			
compare and order fractions whose denominators are all multiples of the same number	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	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, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$]		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	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		multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	
read and write decimal numbers as fractions [for example, $0.71 = \frac{71}{100}$]	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	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	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	read, write, order and compare numbers with up to three decimal places		

Objective	Autumn	Spring	Summer
solve problems involving number up to three decimal places			solve problems involving number up to three decimal places
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		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 ½, ¼, ⅕, ⅖, ⅘ and those fractions with a denominator of a multiple of 10 or 25.			solve problems which require knowing percentage and decimal equivalents of ½, ¼, ⅕, ⅖, ⅘ and those fractions with a denominator of a multiple of 10 or 25.
Measurement			
convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)		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			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		measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres	
calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes		calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes	
estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]		estimate volume [for example, using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]	

Objective	Autumn	Spring	Summer
solve problems involving converting between units of time		converting between units of time	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 alongside teaching of methods	solve problems alongside teaching of methods including decimals	use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling
Geometry – properties of shapes			
identify 3-D shapes, including cubes and other cuboids, from 2-D representations	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		know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles	
draw given angles, and measure them in degrees (°)		draw given angles, and measure them in degrees (°)	
identify angles at a point and one whole turn (total 360°), angles at a point on a straight line and ½ a turn (total 180°), other multiples of 90°		identify angles at a point and one whole turn (total 360°), angles at a point on a straight line and ½ a turn (total 180°), other multiples of 90°	
use the properties of rectangles to deduce related facts and find missing lengths and angles		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	distinguish between regular and irregular polygons based on reasoning about equal sides 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		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			

Objective	Autumn	Spring	Summer
solve comparison, sum and difference problems using information presented in a line graph			solve comparison, sum and difference problems using information presented in a line graph
complete, read and interpret information in tables, including timetables		complete, read and interpret information in tables	complete, read and interpret information in timetables