YEAR 2022-23 Year 5 Objective Map - New Curriculum

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	Low Ach.	High Ach.
Numbers and the Number System								
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 zero								
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								
read Roman numerals to 1000 (M) and recognise years written in Roman numerals.								
Fractions and Decimals and Percentages								
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								
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								
recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents								
round decimals with two decimal places to the nearest whole number and to one decimal place								
read, write, order and compare numbers with up to three decimal places								
solve problems involving number up to three decimal places								
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 and those fractions with a denominator of a multiple of 10 or 25								
Addition and Subtraction								
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.								

	Aut1	Aut2	Spr1	Spr2	Sum1	Sum2	Low Ach.	High Ach.
Multiplication and Division								
identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers								
know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers								
establish whether a number up to 100 is prime and recall prime numbers up to 19								
multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers								
multiply and divide numbers mentally drawing upon known facts								
divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context								
multiply and divide whole numbers and those involving decimals by 10, 100 and 1000								
recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3)								
solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes								
solve problems involving 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 ratio								
Geometry								
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 one whole turn (total 360)								
angles at a point on a straight line and a turn (total 180)								
other multiples of 90o								
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.								
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.								
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)								
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), and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes								

estimate volume [for example, using 1 cm3 blocks to build cuboids (including cubes)] and capacity [for example, using water]							
solve problems involving converting between units of time							
use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.							
Statistics							
solve comparison, sum and difference problems using information presented in a line graph							
complete, read and interpret information in tables, including timetables.							

■	Taught but not secure. Will need to revisit.
■	Taught and mostly secure. Some reinforcement needed.
■	Taught and secure. Need to be further challenged.