Y5 Planning overview

Statutory Requirement	Aut	Spr	Sum
Number : 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	✓		
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.		✓	
Number : addition & 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.	✓		✓
Number : multiplication & 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 rates.			✓

Statutory Requirement	Aut	Spr	Sum
Number : fractions (including 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 [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 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 $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.	✓	✓	
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 (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]			✓
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.	✓		✓
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			✓

Statutory Requirement	Aut	Spr	Sum
Geometry : properties of shape			
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 $^1/_2$ 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.		✓	✓
Statistics			
solve comparison, sum and difference problems using information presented in a line graph			✓
complete, read and interpret information in tables, including timetables.	✓	✓	✓