

Year 5

Aspect	Autumn	Spring	Summer
Number and Place Value	<ul style="list-style-type: none"> I count forward or backwards in steps of powers of 10 for any given number up to 1,000,000. I count up and down in thousandths; recognise that thousandths arise from dividing an object into 1000 equal parts and in dividing numbers or quantities by 1000. 	<ul style="list-style-type: none"> I interpret negative numbers in context, count forwards and backwards with positive and negative numbers, including through zero. I read Roman numerals to 1000 and recognise years written in Roman numerals. 	<ul style="list-style-type: none"> I read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit. I round any number up to 1,000,000 to the nearest 10, 100, 1000, 10000 or 100000.
Addition and Subtraction	<ul style="list-style-type: none"> I add and subtract numbers mentally with increasingly large numbers. I add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction). 	<ul style="list-style-type: none"> I use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. 	<ul style="list-style-type: none"> I solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
Multiplication and Division	<ul style="list-style-type: none"> I identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. I multiply and divide numbers mentally drawing upon known facts. I know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers and establish whether a number up to 100 is prime and recall prime numbers up to 19. I multiply numbers up to 4-digits by a 1-digit or 2-digit number using a formal written method, including long multiplication for 2-digit numbers. 	<ul style="list-style-type: none"> I divide numbers up to 4-digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context. I multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. I solve problems involving multiplication and division using knowledge of factors and multiples, squares and cubes. I solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding of the equals sign. 	<ul style="list-style-type: none"> I recognise and use square numbers and cube numbers, and the notation for squared² and cubed³. I solve problems involving multiplication and division including scaling by simple fractions and problems involving simple rates.

Year 5 (continued)

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Fractions	<ul style="list-style-type: none"> I identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. I read and write decimal numbers as fractions, e.g. $0.71 = \frac{71}{100}$. 	<ul style="list-style-type: none"> I recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements. 	<ul style="list-style-type: none"> I compare and order fractions whose denominators are all multiples of the same number. I round decimals with two decimal places to the nearest whole number and to one decimal place. I read, write, order and compare numbers with up to three decimal places. I 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.
Measures	<ul style="list-style-type: none"> I measure and calculate the perimeter of composite rectilinear shapes in cm and m. I 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. 	<ul style="list-style-type: none"> I estimate volume (e.g. using 1 cm³ blocks to build cuboids, including cubes) and capacity (e.g. using water). I convert between different units of metric measure (e.g. km/m; cm/m; cm/mm; g/kg; l/ml). 	<ul style="list-style-type: none"> I solve problems involving converting between units of time. I understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.

Year 5 (continued)

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Geometry	<ul style="list-style-type: none"> ▪ I know angles are measured in degrees; ▪ I estimate and compare acute, obtuse and reflex angles. ▪ I identify angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°); and I identify angles at a point and one whole turn (total 360°); I identify other multiples of 90°; ▪ I draw given angles, and measure them in degrees. 	<ul style="list-style-type: none"> ▪ I 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. ▪ I distinguish between regular and irregular polygons based on reasoning about equal sides and angles. ▪ I identify 3D shapes, including cubes and other cuboids, from 2D representations. ▪ I use the properties of rectangles to deduce related facts and find missing lengths and angles. 	
Statistics	<ul style="list-style-type: none"> ▪ I complete, read and interpret information in: tables, including timetables 	<ul style="list-style-type: none"> ▪ I solve comparison, addition and difference problems using information presented in a line graph. 	

Year 5- Progression document
Maths