



Year 5 MATHS Subject Map



Place Value Negative Numbers Addition and Subtraction Statistics Multiplication and Division Fractions Consolidation	Fractions Multiplication and Division Perimeter and Area Time Decimals Percentages Consolidation	Shape Decimals Converting units Position and Direction Volume Consolidation
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AGE RELATED EXPECTATIONS

WORKING TOWARDS ARE

- Count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number.
- Count backwards through zero to include negative numbers.
- Order and compare numbers beyond 1000.
- Round any number to the nearest 10, 100 or 1000.
- Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.
- Recall multiplication and division facts for multiplication tables up to 12×12 .
- Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
- Round decimals with one decimal place to the nearest whole number.
- Solve simple measure and money problems involving fractions and decimals to two decimal places.
- Convert between different units of measure [for example, kilometre to metre; hour to minute].
- Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.
- Identify lines of symmetry in 2-D shapes presented in different orientations.
- Plot specified points and draw sides to complete a given polygon.
- Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

MATHEMATICAL LANGUAGE	ADDITION AND SUBTRACTION	FRACTIONS, DECIMALS AND PERCENTAGES	SHAPE AND GEOMETRY
21. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. 39. Sort and classify shapes using a wide range of criterion using increasingly sophisticated mathematically appropriate vocabulary.	21. Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtract) 22. Add and subtract numbers mentally with increasingly large numbers (e.g. $12462 - 2300 = 10162$). 23. Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy 24. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why	33. Compare and order fractions whose denominators are all multiples of the same number 34. Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths 35. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number 36. Add and subtract fractions with the same denominator and denominators that are multiples of the same number 37. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams 38. Read and write decimal numbers as fractions 39. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents 40. Round decimals with two decimal places to the nearest whole number and to one decimal place 41. Read, write, order and compare numbers with up to three decimal places 42. Solve problems involving number up to three decimal places 43. 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 44. Solve problems which require knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and those fractions with a denominator of a multiple of 10 or 25.	52. Identify 3-D shapes, including cubes and other cuboids, from 2-D representations 53. Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles 54. Draw given angles, and measure them in degrees (°). 55. Identify angles at a point and one whole turn (total 360°) 56a. Angles at a point on a straight line and $1/2$ a turn (total 180°) 56b. other multiples of 90° 57. Use the properties of rectangles to deduce related facts and find missing lengths and angles 58. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles
PLACE VALUE	MULTIPLICATION AND DIVISION	MEASUREMENT	DIRECTION AND POSITION
15. Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit. 16. Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 17. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero. 18. Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 19. Solve number problems and practical problems that involve all of the above 20. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.	25. Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers 26. Know and use the vocabulary of prime numbers, prime factors and composite (nonprime) numbers 27. Establish whether a number up to 100 is prime and recall prime numbers up to 19 28. Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. 29. Multiply and divide numbers mentally drawing upon known facts 30. Divide numbers up to 4 digits by a two-digit number using the formal written method of short division. 31. 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 32. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000	45. Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre & millilitre). 46. Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints 47. Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres. 48. 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. 49. Estimate volume [for example, using 1 cm ³ blocks to build cuboids (including cubes)] and capacity [for example, using water] 50. Solve problems involving converting between units of time 51. Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling	59. 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 AND DATA HANDLING
			60. Complete, read and interpret information in tables, including time-tables 61. Solve comparison, sum and difference problems using information presented in a line graph