

Mathematics

National Curriculum expectations for the end of Year 3

Year 3



Addition and Subtraction

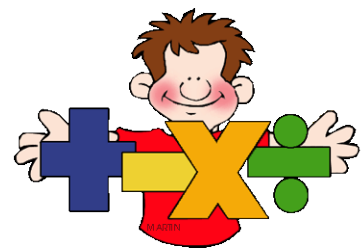
- Add and subtract numbers mentally, including:
 - A three-digit number and ones
 - A three-digit number and tens
 - A three-digit number and hundreds
- Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.
- Estimate the answer to a calculation and use inverse operations to check answers.
- Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.

Number and Place Value

- Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.
- Recognise the place value of each digit in a three-digit number (hundreds, tens, ones.)
- Compare and order numbers up to 1000.
- Identify, represent and estimate numbers using different representations
- Read and write numbers up to 1000 in numerals and in words.
- solve number problems and practical problems involving these ideas.

Fractions

- Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.
- Recognise, find and write fractions of a discrete set of objects: unit fractions and nonunit fractions with small denominators.
- Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.
- Recognise and show, using diagrams, equivalent fractions with small denominators.
- Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7} + \frac{1}{7} = \frac{6}{7}$]
- Compare and order unit fractions, and fractions with the same denominators.
- Solve problems that involve all of the above.



Statistics

- Interpret and present data using bar charts, pictograms and tables.
- Solve one-step and two-step questions [for example, 'how many more?' and 'how many fewer?'] using information presented in scaled bar charts and pictograms and tables.

Multiplication and Division

- Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.
- Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.
- Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.



Measurement

- Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
- Measure the perimeter of simple 2-d shapes.
- Add and subtract amounts of money to give change, using both £ and p in practical contexts.
- Tell and write the time from an analogue clock, including using roman numerals from i to xii, and 12-hour and 24-hour clocks.
- Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.
- Know the number of seconds in a minute and the number of days in each month, year and leap year.
- Compare durations of events [for example to calculate the time taken by particular events or tasks].

Properties of Shapes

- Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them.
- Recognise angles as a property of shape or a description of a turn.
- Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle.
- Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

Position and Direction

- Order and arrange combinations of mathematical objects in patterns and sequences
- Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).