



Maths Milestones

These are the Key Progress measures we use to assess children's progress each year.

Year 1 Milestones

- Count within 100, forwards and backwards, starting with any number.
- Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$.
- Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.
- Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.
- Reason about the location of numbers to 20 within the linear number system, including comparing using $<$ $>$ and $=$.
- Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.
- Develop fluency in addition and subtraction facts within 10.
- Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.

Year 2 Milestones

- Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.
- Add and subtract across 10.
- Secure fluency in addition and subtraction facts within 10, through continued practice.
- Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number.
- Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.
- Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotative division).
- Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.
- Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.

Year 3 Milestones

- Secure fluency in addition and subtraction facts that bridge 10, through continued practice.
- Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.
- Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.
- Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure.
- Understand and use the commutative property of addition, and understand the related property for subtraction.
- Add and subtract up to three-digit numbers using columnar methods.
- Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.
- Reason about the location of any fraction within 1 in the linear number system.
- Draw polygons by joining marked points, and identify parallel and perpendicular sides.

Year 4 Milestones

- Add and subtract up to three-digit numbers using columnar methods.
- Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.
- Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.
- Recall multiplication and division facts up to 12×12 , and recognise products in multiplication tables as multiples of the corresponding number.
- Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size.
- Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.
- Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.
- Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders.

Year 5 Milestones

- Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and nonstandard partitioning.
- Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.
- Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.
- Compare areas and calculate the area of rectangles (including squares) using standard units.
- Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.
- Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.
- Convert between units of measure, including using common decimals and fractions.
- Recall decimal fraction equivalents for $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ and $\frac{1}{10}$, and for multiples of these proper fractions.

Year 6 Milestones

- Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.
- Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.
- Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).
- Draw, compose, and decompose shapes according to given properties, including dimensions, angles and area, and solve related problems.
- Express fractions in a common denomination and use this to compare fractions that are similar in value.
- Solve problems with 2 unknowns
- Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.
- Solve problems involving ratio relationships.