

Reception - Key Objectives to achieve

Say and use the number names in order and in familiar contexts.

Count everyday objects reliably up to 10.

Recognise numerals 0 to 9.

Use language such as more or less, greater or smaller, heavier or lighter, to compare two numbers or quantities.

In practical activities and discussion, begin to use the vocabulary involved in adding and subtracting.

Find one more or one less than a number from 0 to 10.

Begin to relate addition to combining two groups of objects, and subtraction to 'taking away'.

Talk about, recognise and recreate simple patterns in numbers, shapes and using everyday objects.

Use mathematical language to describe the shape and size of solids and flat shapes.

Use everyday words to describe position.

Use developing mathematical ideas and methods to solve practical problems.

Year 1 - Key Objectives to achieve

Count reliably at least 20 objects.

Count on and back in ones from **any** small number, and in tens from and back to zero.

Read, write and order numbers from 0 to at least 20; understand and use the vocabulary of comparing and ordering these numbers.

Within the range 0 to 30, say the number that is 1 or 10 more or less than any given number.

Understand the operation of addition, and of subtraction (as 'take away' or 'difference'), and use the related vocabulary.

Know by heart all pairs of numbers with a total of 10.

Use mental strategies to solve simple problems using counting, addition, subtraction, doubling and halving, explaining methods and reasoning orally.

Compare two lengths, masses or capacities by direct comparison.

Suggest suitable measuring equipment to estimate, then measure, a length, mass or capacity.

Use everyday language to describe features of familiar 3-D and 2-D shapes.

Year 2 – Key Objectives to achieve

Count, read, write and order whole numbers to at least 100; know what each digit represents (including 0 as a place holder).

Describe and extend simple number sequences (including odd/even numbers, counting on or back in ones or tens from any two-digit number, and so on).

Understand that subtraction is the inverse of addition; state the subtraction that corresponds to a given addition and vice versa.

Know by heart all addition and subtraction facts for each number to at least 10: $1+9=10$, $2+8=10$, $3+7=10$ etc.

Use knowledge that addition can be done in any order to carry out mental calculations more efficiently.

Understand the operation of multiplication as repeated addition or as describing an array (see BHPS parental guidance for further information on arrays).

Know and use halving as the inverse of doubling.

Know by heart facts for the 2 and 10 multiplication tables.

Estimate, measure and compare lengths, masses and capacities, using standard units; suggest suitable units and equipment for such measurements.

Read a simple scale to the nearest labelled division, including using a ruler to draw and measure lines to the nearest centimetre.

Use the mathematical names for common 2-D and 3-D shapes; sort shapes and describe some of their features.

Use mathematical vocabulary to describe position, direction and movement.

Choose and use appropriate operations and efficient calculation strategies to solve problems, explaining how the problem was solved.

Year 3 - Key Objectives to achieve

Read, write and order whole numbers to at least 1000; know what each digit represents.

Count on or back in tens or hundreds from any two- or three-digit number.

Recognise unit fractions such as $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{1}{10}$, and use them to find fractions of shapes and numbers.

Know by heart all addition and subtraction facts for each number to 20.

Add and subtract mentally a 'near multiple of 10' to or from a two-digit number.

Know by heart facts for the 2, 5 and 10 multiplication tables.

Understand division and recognise that division is the inverse of multiplication.

Use units of time and know the relationships between them (second, minute, hour, day, week, month, year).

Understand and use £.p notation.

Choose and use appropriate operations (including multiplication and division) to solve word problems, explaining methods and reasoning.

Identify right angles.

Identify lines of symmetry in simple shapes and recognise shapes with no lines of symmetry.

Solve a given problem by organising and interpreting numerical data in simple lists, tables and graphs.

Year 4 - Key Objectives to achieve

Use symbols correctly, including less than ($<$), greater than ($>$), equals ($=$).

Round any positive integer less than 1000 to the nearest 10 or 100.

Recognise simple fractions that are several parts of a whole, and mixed numbers; recognise the equivalence of simple fractions.

Use known number facts and place value to add or subtract mentally, including any pair of two-digit whole numbers.

Carry out column addition and subtraction of two numbers less than 1000, and column addition of more than two such numbers.

Know by heart facts for the 2, 3, 4, 5 and 10 multiplication tables.

Derive quickly division facts corresponding to the 2, 3, 4, 5 and 10 multiplication tables.

Find remainders after division.

Know and use the relationships between units of length, mass and capacity.

Classify polygons, using criteria such as number of right angles, whether or not they are regular shapes and properties of symmetry.

Choose and use appropriate number operations and ways of calculating (mental, mental with jottings, pencil and paper) to solve problems.

Year 5 – Key Objectives to achieve

Multiply and divide any positive number up to 10, 000 by 10 or 100 and understand the effect.

Order a given set of positive and negative numbers.

Use decimal notation for tenths and hundredths.

Round a number with one or two decimal places to the nearest whole number.

Relate fractions to division and to their decimal representations.

Calculate mentally a difference such as $8006 - 2993$.

Carry out column addition and subtraction of positive numbers up to 10, 000.

Know by heart all multiplication facts up to 10×10 .

Carry out short multiplication and division of a three-digit by a single-digit number.

Carry out long multiplication of a two-digit by a two-digit number.

Understand area measured in square centimetres (cm^2); understand and use the formula in words 'length x width for the area of a rectangle.

Recognise parallel and perpendicular lines, and properties of rectangles.

Use all four operations to solve simple word problems involving numbers and quantities, including time, explaining methods and reasoning.

Year 6 – Key Objectives to achieve

Multiply and divide decimals mentally by 10 or 100, and numbers by 1000, and explain the effect.

Order a mixed set of numbers with up to three decimal places.

Reduce a fraction to its simplest form by cancelling common factors.

Use a fraction as an operator to find fractions of numbers or quantities (e.g. $\frac{5}{8}$ of 32, $\frac{7}{10}$ of 40, $\frac{9}{100}$ of 400 centimetres).

Understand percentage as the number of parts in every 100, and find percentages of whole-number quantities.

Solve simple problems involving ratio and proportion.

Carry out column addition and subtraction of numbers involving decimals.

Derive quickly division facts corresponding to multiplication tables up to 10×10 .

Carry out multiplication and division of numbers involving decimals.

Carry out multiplication of a three-digit by a two-digit integer.

Use a protractor to measure acute and obtuse angles to the nearest degree.

Calculate the perimeter and area of simple and compound shapes.

Read and plot co-ordinates in all four quadrants of a graph.

Identify and use the appropriate operations (including combinations of operations) to solve word problems involving numbers and quantities, and explain methods and reasoning.

Solve a problem by extracting and interpreting information presented in tables, graphs and charts.