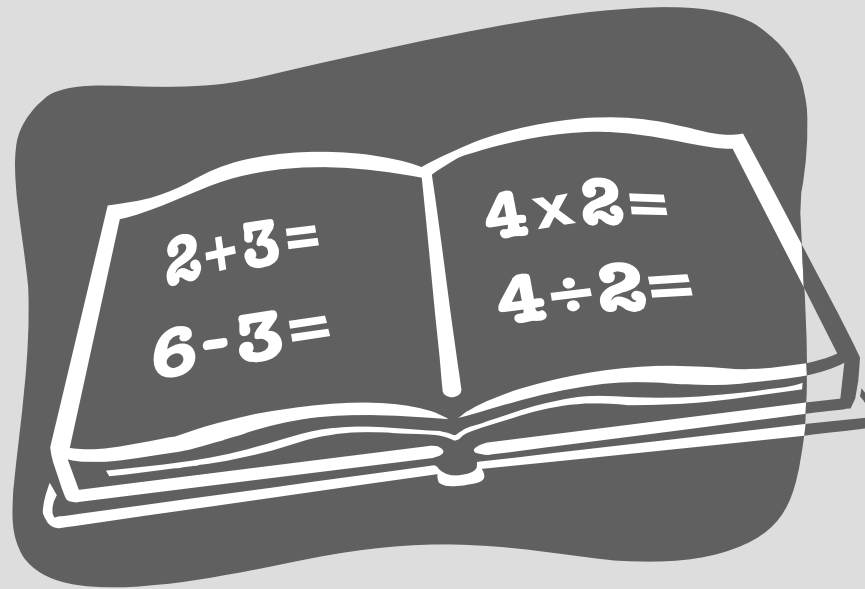




# Mathematics Assessment: Record of Key Objectives



# Key Objectives Reception

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

Count reliably up to 10 everyday objects.

Recognise numerals 1 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 1 to 10.

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

Talk about, recognise and recreate simple patterns.

Use language such as circle or bigger 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.



# Key Objectives

## Year 2

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 corresponding to a given addition and vice versa.

Know by heart all addition and subtraction facts for each number to at least 10.

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

Understand the operation of multiplication as repeated addition or as describing an array.

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.

# Key Objectives Year 3

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.

# Key Objectives Year 4

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 integers less than 1000, and column addition of more than two such integers.

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 familiar units of length, mass and capacity.

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

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

# Key Objectives Year 5

Multiply and divide any positive integer up to 10000 by 10 or 100 and understand the effect.

Order a given set of positive and negative integers.

Use decimal notation for tenths and hundredths.

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

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 integers less than 10000.

Know by heart all multiplication facts up to  $10 \times 10$ .

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

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

Understand area measured in square centimetres ( $\text{cm}^2$ ); understand and use the formula in words 'length x breadth' 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.



