## By the end of Year 6 the average child will be able to:

- Develop own strategies for solving problems. e.g. Make connections to previous work. Pose and answer questions related to a problem.
- Read, write and order any number.
- Use decimal notation for tenths, hundredths and thousandths and know what each digit represents.
- Multiply and divide any whole number by 10, 100 or 1000.
- Calculate how many more to add to a 2 digit number with 1 decimal place to make the next number ending in 0. (i.e. 27.3 + 2.7 = 30).
- Write calculations down in columns to add and subtract 2 numbers ThHTU ± ThHTU.
- Work out the relationships between fractions, decimals and percentages.
- Use words such as parallel, perpendicular, bisect, diagonals etc. to classify 2D shapes.
- Classify triangles according to their properties.
- Use a protractor to measure angles to within 5 degree.
- Work out the perimeter of rectangles and regular polygons.
- Understand the difference between discrete and continuous data.
- Find the mode and range of a set of data.
- Construct and interpret simple line graphs.





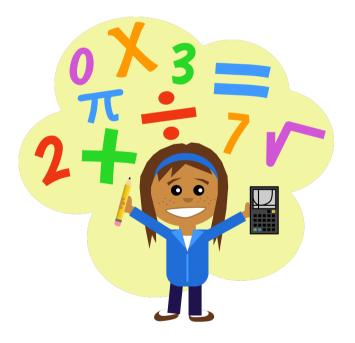
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'Believe it: Achieve it'



# What should my child be able to do in Maths and when?



A guide to the average child's attainment.

The statements in this booklet are an outline of what the 'average' child is expected to be able to do by the end of each school year. They are not a complete list of every mathematical skill a child is expected to have mastered, but are intended to help parents understand the level their child should be working at. Some children will clearly be working beyond the level expected and will have moved on to the next set of skills before the end of the year, and others will not have mastered all of them and will keep working towards them the following year.

It is important to understand that many other skills have not been included in order to keep the document to a workable length, and that in-between steps that fit between one year and the next have not been included.



#### By the end of Year 5 the average child will be able to:

- Present information and results in a clear and organised way for example: organise written work with results recorded in order.
- Read write and order all numbers to 1,000,000 in words and figures.
- Use decimal notation for tenths and hundredths and know what each digit represents.
- Work out the difference between a negative and positive temperature on a scale or number line.
- Know off by heart all their times tables.
- Work out doubles and halves of numbers which are multiples of 10 to 1000 and multiples of 100 to 10000.
- Work out what needs to be added to a fraction to make a whole one (1/10,  $\frac{1}{5}$ ,  $\frac{1}{4}$ ,  $\frac{1}{3}$ ,  $\frac{1}{2}$ ).
- Write my calculations down in columns to help me subtract 2 numbers ThHTU + ThHTU.
- Write my calculations down in columns to help me add 3 or more four digit numbers.
- Work out 10%, 25% or 50% of numbers and know their connections to fractions.
- Know that symbols can be used to represent missing digits or numbers.
- Understand that if I multiply by zero the answer is zero.
- Understand that if I divide a number by 1 the answer is the original number.
- Know that a whole turn is 360°.
- Read a timetable and solve simple problems.
- Use the 24 hour clock.
- Solve problems by creating, reading and interpreting a variety of charts.
- Talk about chances of events happening.

#### By the end of Year 4 the average child will be able to:

- Develop an organised approach as they get into recording their work on a problem.
- Read write and order all numbers to 10,000 in words and figures.
- Round any 3 digit number to the nearest 10.
- Round any larger number to the nearest 100.
- Order negative and positive numbers.
- Add and subtract a near multiple of 10 to any two-digit number by adding and adjusting e.g. 49+24 or 73-31.
- Know off by heart the 6,9 and 11 times table.
- Double and halve any even number up to 100.
- Recognise and name these fractions:  $\frac{1}{3}$ ,  $\frac{1}{5}$ , &  $\frac{1}{10}$ .
- Write calculations down in columns to add or subtract 2 numbers i.e. HTU + HTU.
- Know and understand why division problems often have remainders.
- Multiply TU X U by multiplying the 10s digit first.
- Recognise and draw lines of symmetry in simple shapes.
- Recognise right angles in 2D shapes.
- Know that a straight line is equivalent to 2 right angles.
- Describe some 2D or 3D shapes according to number of right angles, symmetry, regularity etc.
- Read scales to the nearest unlabelled division.
- Draw lines using a ruler to the nearest 0.5 cm.
- Read the time to five minutes on a digital clock and an analogue clock.
- Present and interpret data in a range of charts.

## By the end of Reception the average child will be able to:-

Count accurately from 1 - 20.

Order numbers from 1 - 20.

Say the number that is one more between 1 and 20.

Solve simple double and halving problems using apparatus.

Add and subtract two single digit numbers using apparatus by counting on or back.

Recognise and name common 2d shapes.

Recognise, create and describe patterns.

Use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems

#### By the end of Year 1 the average child will be able to:-

- Read and Write all numbers to 100 in words and figures
- Count forwards and backwards in groups of 5 and 10 starting and finishing at a number less than 100.
- Know off by heart all addition and subtraction facts for numbers less than 10 e.g. 6+?=10, 10-?=3
- Add or subtract two 2 digit numbers that total 30 or less using a number line or apparatus.
- Find half of a number of objects by sharing equally.
- Name cubes and cuboids, spheres, cones and cylinders.
- Use words like faces and corners to sort 2D shapes.
- Choose the correct measuring equipment to measure length, weight or capacity (such as rulers, tape measures, metre sticks, balances, jugs, beakers etc.)

#### By the end of Year 2 the average child will be able to:

- Count on and back in 2s from any given number, less than 100.
- Say the number that is 10 more or 10 less than a given number up to 100.
- Recognise odd and even numbers.
- Use < & > correctly.
- Know by heart all pairs of numbers with a total of 20.
- Add two 2 digit numbers sometimes without apparatus.
- Use partitioning to help add two 2 digit numbers.
- Find half or a quarter of any number (within 20) that is divisible by 2 or 4.
- Subtract a 2 digit number from a larger 2 digit number with the help of apparatus.
- Recognise name and sort all common 2d and 3d shapes.
- Compare objects to 10 cm or 1 cm and say whether they are longer or shorter.

The only way to learn mathematics is to do mathematics.

PAUL HALMOS

#### By the end of Year 3 the average child will be able to:

- Read write and order all numbers to 1,000 in words and figures.
- Round any 2 digit number to the nearest 10.
- Write amounts of money as  $\pounds$  and p.
- Know by heart all the addition and subtraction facts for each number to 20.
- Add 9 or 11, 19 or 21 to any two digit number without crossing 100.
- Double and halve numbers ending in 0 up to 100.
- Know off by heart the 2, 3, 4, 5 and 10 times table.
- Add and subtract two and three digit numbers from each other using pencil and paper.
- Estimate length, weight and capacity and identify standard units to measure them.
- Read a scale to the nearest labelled division to measure length, wight and volume.
- Read the time to a quarter of an hour in a digital and analogue clock.
- Read data presented in a variety of charts.

