



Maths at Talbot Primary School

Our varied maths curriculum aims to provide children with a solid understanding of maths using concrete, pictorial and abstract resources. Through the development of concepts and procedures children will develop a deep and rich understanding of maths which they can apply to a variety of situations. Children at Talbot Primary are taught to use a range of models, structures and language to demonstrate their understanding of maths.

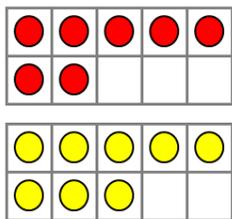
Fluency: Fluency and mental maths is taught daily to ensure that children have a good understanding of the fundamentals of maths. Varied tasks are planned which allow children to build on their fluency skills and apply their knowledge to a range of situations. These tasks will increase in complexity over time. Children are encouraged to demonstrate their depth of understanding using different models and structures.

Reasoning: Reasoning tasks are incorporated into lessons on a daily basis. There is an expectation that children will articulate their understanding of a topic using the correct mathematical vocabulary. This is aided by Talk Matters structures such as talk frames and reasoning bookmarks.

Problem solving: Children are taught to apply their mathematical understanding to a variety of problems. Teachers regularly model how these should be approached and good practice is regularly shared. An ethos of perseverance is encouraged and children are taught to value all learning which takes place during problem solving rather than just reaching a solution.

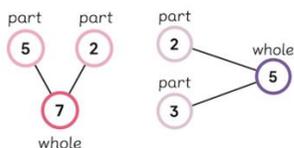
The following booklet is designed to support this understanding and share some common models and images used by your child(ren) in school.

Reception (R) and Key Stage One (KS1): Some equipment and terms your child might use



Ten frame and counters (R and KS1)

A two-by five array used with counters to develop and awareness of ten and sense of number. Various arrangements of the ten frame allow children to think about the mental strategies they can use to solve a problem. More than one frame can be used for numbers beyond ten.



A Part-whole Diagram/Number Bond Diagram (R and KS1)

Children learn how numbers can be combined or split, this allows them to explore the parts that make up whole numbers. There is no right or wrong orientation of the diagram and children are encouraged to use whichever helps them most.



Base Ten Dienes Equipment (R and KS1)

A concrete resource that allows children to understand and visualise numbers. Each 'block' is 1cm squared with ten appearing as a rod and 100 as a square plate and 1000 as a cube. This allows children to build a deep understanding of the place value of numbers, that is when numbers are compared to each other

Hundreds	Tens	Ones

Place Value Chart (R and KS1)

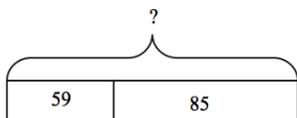
Often used with Base Ten equipment. This allows children to use pictorial representation to write down their understanding of what makes up a number.



Number line (KS1)

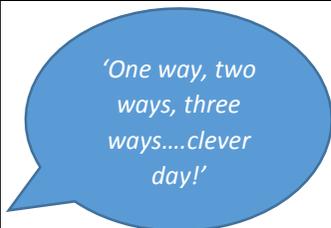
Children use a number line to help them move from concrete resources to more pictorial representation of numbers. They are encouraged to draw their own line which will suit their need, counting in regular steps. Children count on or back to help them solve problems in addition, subtraction and later in multiplication and division too.

Key Stage Two: Some equipment and terms your child might use in addition to those used from Reception



Bar model

A visual strategy to help solve number problems using different sized rectangles to represent numbers. The rectangles or 'bars' are proportional so that a larger number in a problem is represented by a larger bar. It does not provide the answer but gives the user an understanding of what calculation is needed to find the answer. Helps to support problem solving, reasoning and fractions, decimals and percentages.



Multiple representation

Children are asked to show their understanding of a problem in multiple ways to support depth in understanding and reasoning skills underpinned by sound language.

Place Value Chart

thousands	hundreds	tens	ones

_____ + _____ + _____ + _____

Place value table

Builds on the Key Stage One model. This allows children to use pictorial representation to write down their understanding of what makes up a number.

Draw the problem	Represent the problem using a model
Calculate	Explain

Reasoning square

Supports children's understanding of the problem, i.e. what is the problem? What does it look like? What do I need to do? How do I know the answer is right or 'real'?

The following websites support the school's approach to Maths and commitment to developing fluency, reasoning and problem solving.
Please give them a try!

Top Marks:

<https://www.topmarks.co.uk/maths-games/hit-the-button>

Conker Maths:

<http://www.conkermaths.org/cmweb.nsf/pages/kirfs.html>

Mathematics Shed:

<http://www.mathematicshed.com/>

Education City:

<https://www.educationcity.com/>

iXL Maths:

<https://uk.ixl.com/>