



MATHEMATICS

Useful Information For Class 1 Parents 2024-2025



Maths is like cabbage...

you either love it or hate it,

depending on how it was served up

to you at school!

Maths at Calthwaite C of E Primary School


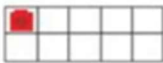

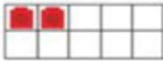

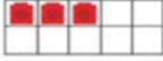


From your own experience, you may find yourself from time to time saying 'I was never good at Maths.' Mathematics education has changed significantly over the years and as a result, it should be a fun, engaging and rooted in real-life context experience.

At Calthwaite, we believe that everyone can do maths! It is a subject that everyone can and should be able to perform confidently and competently.



We follow the White Rose Schemes of learning which outline yearly frameworks that break down what children need to learn during each week of each term to master the learning objectives laid out by the National Curriculum. White Rose Maths frameworks are designed to be enjoyable, engaging and varied, to help pupils develop a love of learning and work towards mastery with differentiated resources.

It uses the CPA (Concrete - Using physical objects, Pictorial - Using pictures or drawings, Abstract - using only numbers), which is an effective approach to teaching, that develops a deep and sustainable understanding of maths in pupils.

Concrete	Pictorial	Abstract
		1
		2
		3
		4

Concrete is the 'doing' stage, using concrete objects to solve problems.

Pictorial is the 'seeing' stage, using representations of the objects involved in maths problems.

Abstract is the 'symbolic' stage, where children are able to use abstract symbols to model and solve maths problems.

Practical Learning

Practical learning, especially in their earlier years, is so important in the development of your child's understanding of Mathematical concepts. ANYTHING can be made practical; you don't need Maths resources to achieve this. This is really visual and crucial before your child moves onto pictorial and abstract learning. Below are some examples of how to make Maths fun and practical for children with their learning at home!



Stories, songs and rhymes

- Count people/things/objects on a page
- Look for shapes in a picture
- Sing songs and rhymes

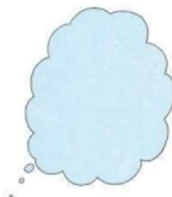
Water

- Put different things in the bath or in a bowl to discuss heavy and light items
- How much water different containers hold to compare weight and capacity



Playdough

- Make numbers, 2D and 3D shapes
- Make a pattern with shapes and colour
- Build playdough models using time words such as now, next, etc...



Imaginative play

- Set the table for your toys. How many spoons will you need?
- Build a tower. Whose tower is tallest? How many bricks did you use?
- Sell food in a shop – this is great for counting, money and recognising shapes in food.

Cooking/Baking

- Weigh out the ingredients when baking. Talk about how long it will take to cook.
- Decorate cakes with patterns.
- Cut food into different shapes.
- Count out how much you will need of an ingredient.



Routine

- Talk about today, tomorrow, yesterday
- Count to 20 when washing hands
- Count when tidying or picking things up
- Look for shapes and numbers in the world around us

Maths in Class One

Many children come to school with the ability to rote count with numbers to 10 and beyond. Whilst this is an important developmental skill, there is so much more to mathematics than this. We need children to develop a deeper understanding of number. To do this, we focus upon teaching for fluency, reasoning and problem solving.

Fluency:

Representing Number

We want to develop children's number sense so that they understand the number rather than just recognising the numeral. Children need to understand that numbers can be represented in many ways, not just as a written numeral. We use many different objects and pictures to show that numbers can be represented in lots of ways.

For example:

Some ways to represent five



Children sometimes need lots of practise to recognise numbers in different forms. We play matching games and encourage children to recognise and make different amounts in our indoor and outdoor areas.

Counting

Children need to understand...

- That we need to say one number for each object counted (touch counting).
- The final number we say is how many altogether. Some children continue to count after they have reached the final object as they don't connect the numbers they are saying to the objects in front of them.
- That we can count objects in any order and the total stays the same.

Recognising Amounts

Another skill that is very important is recognising small amounts without the need to count them. We call this *subitising*. Initially this should be by using concrete objects such as those shown above but as children progress, allowing them to see groups of dots in different arrangements helps them to mentally 'see' how many objects are there without needing to count. This is a very important skill when children begin to add and subtract. Using dice is a good way to practise this skill before moving onto objects in different arrangements.

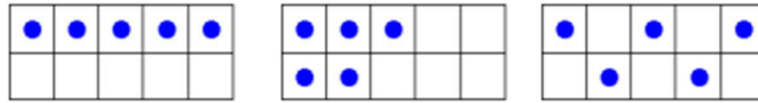
For example:



Understanding that the total stays the same even when the objects move

When children first start to use numbers, they often do not understand that if we move objects into another arrangement the total stays the same. We practise this with many different types of objects but a useful tool is using a ten frame to be able to move counters around.

For example:



By becoming fluent in maths facts, it allows our brain to concentrate on higher level skills.

Reasoning:

Reasoning helps children to be able to explain their thinking, therefore making it easier for them to understand what is happening in the maths they are doing. It helps them to think about how to solve a problem, explain how they solved it and to think about what they could do differently. In Class 1, some examples of reasoning are:

- true and false statements e.g. adding one to a number always makes it smaller.
- spotting incorrect maths e.g. 1, 2, 3, 4, 6, 5, 7, 8, 9, 10
- explaining how we know something or how we worked it out.

Problem Solving:

Problem solving in maths allows children to use their maths skills in lots of contexts and in situations that are new to them. It allows them to seek solutions, spot patterns and think about the best way to do things rather than blindly following maths procedures. Problem solving might include: •

- spotting, following and creating patterns
- estimating amounts of objects
- predicting how many times they can do something in a minute
- sharing objects between different groups – particularly when the number of groups change and the number of objects stays the same.
- finding different ways to partition numbers e.g. 5 could be $5+0$, $4+1$, $3+2$ etc

How can I help my child at home?

- Count - steps up the stairs, money into a money box etc
- Ask children to say how many without counting (5 or fewer)
- Play games using dice/dominoes and encourage child to say how many spots without counting.
- Ask children to set the table with enough knives, forks and plates for everyone.
- Spot numbers in the environment – on phones, microwaves, clocks, registration plates, doors.
- Ask children to think of their own representations for numbers e.g. one of them, two hands, three bears, four wheels on a car, five toes, six sides on a dice, seven dwarves, eight legs on an octopus
- Deliberately make mistakes. Children need to understand mistakes are normal and everyone makes them e.g. get mixed up when counting, muddle two numbers when ordering them.
- Watch Numberblocks on CBeebies. This programme is written by maths specialists to model maths concepts and represents number brilliantly. Also, Numberjacks is excellent for solving problems.
- Hide numbers around the house or garden for children to find
- Play outdoor maths games like hopscotch and skittles. Even better, let children make up their own games and decide how to score points.
- Read books with maths concepts e.g. The Very Hungry Caterpillar, One is a snail, ten is a crab, What's the time, Mr Wolf? The doorbell rang.
- Draw attention to more and less.
- Try some activities from the NRIC website for EYFS to encourage depth - www.nrich.maths.org



If you have any questions at all about how we deliver Maths in Class 1, we are more than happy to answer your queries. Please do come and ask us!

Useful Links:

Numberblocks <https://www.bbc.co.uk/cbeebies/shows/numberblocks>

Topmarks Interactive Games <https://www.topmarks.co.uk/Search.aspx?Subject=16&AgeGroup=1>

Busy Things Interactive Games <https://www.busythings.co.uk/>

NRICH Website <https://nrich.maths.org/teachers/early-years>

Maths Seeds <https://mathseeds.co.uk/>