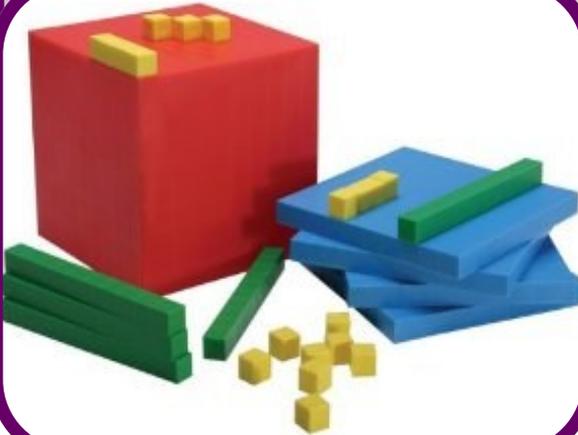


Mathematics Mastery

Mathematics Mastery is an exciting curriculum where children learn through a 'hands-on' investigation method. This helps them to develop a deeper understanding of key mathematical concepts.

The children develop their mathematical skills by focusing on depth rather than breadth, with a greater emphasis on securing skills, as opposed to covering content.

Mathematics Mastery is closely linked to the curriculum of Singapore which is consistently one of the highest ranked nations for mathematical performance. We have seen a great impact on the standards in all year groups. The children are exposed to a range of problems which allow them to expand their reasoning and critical thinking skills.



How to support your child

There are lots of ways to support your child at home. Here are a few ideas:

- ◆ The basis for good maths is good mental calculation. Encourage children to use numbers mentally when they are with you, particularly in shops, when cooking and using money .
- ◆ Let your children see how you use maths every day.
- ◆ Encourage your children to recall times tables when they are with you. They do not need to be done in order and the quicker they can recite them the better for their development.
- ◆ Play maths games on the internet; the BBC have a range of resources as do Nrich, but there are many other websites and apps.



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Mathematics



Our Mathematics Scheme

Mathematics across the school is based on a Singaporean approach to teaching and learning. The method uses a three-step learning model, which introduces mathematical ideas in progression. It moves from the concrete to visual representation and then on to the more abstract. Children are taught not only to know how to do something, but also why it works.

Maths Mastery encourages children to use more than one method to calculate a solution so they have a deeper understanding of the problems they encounter. This means that children can choose which methods they will use to solve problems.

Maths Meetings

To ensure mathematics remains at the forefront of the children's learning, we have developed and adopted a practice from Mathematics Mastery that we use across the whole of the school.

In the afternoon, for 15 minutes each day, the children focus on reinforcing key mathematical facts, that include time, money, shapes, patterns and equivalence between numbers. It is fun and interactive in its approach with songs, rhymes and memory games.



Mental Calculations

At Shacklewell we focus very closely on children developing their mental mathematics skills. It is a crucial part of our mathematics syllabus.

Our 'Beat it' initiative allows children to learn, recall and recite number facts at increasing speed each day with a weekly test each Friday.

Problem Solving

The new National Curriculum has simplified the mathematical content that has to be taught in schools. However, something that has been given an increased importance is the role of problem solving, right across the primary years.

The Government want children to leave school as 'secondary school ready.' This can be achieved through children using their mathematical knowledge to solve real life problems.

Through Maths Meetings, IPC, and Maths Mastery, the children have a greater number of opportunities to solve real life problems in challenging and exciting ways.

Concrete, Pictorial and Abstract (CPA)

Mathematics Mastery encourages children to examine mathematical concepts through the use of a CPA approach.

By using concrete apparatus, which can include dienes rods, counters or any interactive material the teacher can physically demonstrate a concept, allowing the children to interact with the resources to secure their understanding.

The children's learning then develops to the pictorial stage where they are able to incorporate their concrete work into more recognisable number pictures and patterns.

The children then move on to the standard algorithms for addition, subtraction, multiplication and division, with less and less reliance upon concrete materials.

A key principle of our children being mathematically fluent is that they should be able to use any of the concrete, pictorial or abstract methods to approach number problems. This means that children across the school are expected to use a variety of materials to demonstrate their understanding and explain their thinking.

