

A Guide for Parents



Eden Park Nursery and Primary School Academy



What is Maths Mastery?

At Eden Park in Reception, we aim to offer and deliver high quality Maths opportunities and sessions to enable children to have a deep understanding of mathematical concepts.

Our interpretation of 'Maths Mastery' is ensuring small steps are taken to ensure all children have the opportunity to be secure in a concept before moving on. We know it is important for children to make links, which are stored in the long-term memory.

We are passionate about Maths and aim for children to be curious and fearless.



How Can I Help at Home?

- Count - steps up the stairs, money into a money box etc
- 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.
- Watch 'Numberblocks' on CBeebies. This programme is written by maths specialists to model maths concepts and represents number.
- 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?'.
- Ask questions such as "How many more?", "How many altogether?", "How many would I have if..."



Reasoning

Reasoning in Maths helps children to be able to explain their thinking, therefore making it easier for them to understand. 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 Reception, some examples of reasoning are:

- spotting incorrect Maths e.g. 1, 2, 3, 4, 6, 5, 7, 8, 9, 10
- asking children to show multiple examples. E.g. “can you show me another way of making 4”.
- using “non examples” and asking children to spot the odd one out. For instance, “which one is the odd one out and why?”



Problem Solving

Problem solving helps to support children’s reasoning skills.

This may include:

- estimating amounts of objects
- predicting how many times they can do something in a minute .
- sharing objects between different groups .
- finding different ways to partition numbers. E.g. 5 could be $5+0$, $4+1$, $3+2$.



The Early Learning Goals:

The Early Learning Goals are what is expected of most children to achieve by the end of their first year in Reception, in terms of their Maths development.

Number:

- Children have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5;
- Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.

Numerical Patterns:

- Verbally count beyond 20, recognising the pattern of the counting system;
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;
- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.



How We Teach Maths:

Fluency:

Starting in our nurseries, we develop the children's fluency of number, starting with 'representing number'. Children need to understand that numbers can be found everywhere and be represented in lots of ways. Children have opportunities to explore numbers through small world play and having access to lots of different materials and objects.

For example, there are lots of ways of representing number 4:



Counting is an important skill. We teach children:

- 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, this is also referred to as 'subitising'. Using dice is a good way to practise this skill. This allows children, when looking at dots or objects for example, to mentally 'see' *how many* objects are there without needing to count. This is a very important skill which children will then begin to use all the time without realising and is something we do as adults every day.



Playing games, involving dice, dominos, playing cards and sorting and matching are brilliant ways of developing children's ability to see recognise numbers without counting them.

