



Parkfield Parent Guide

Maths in Reception



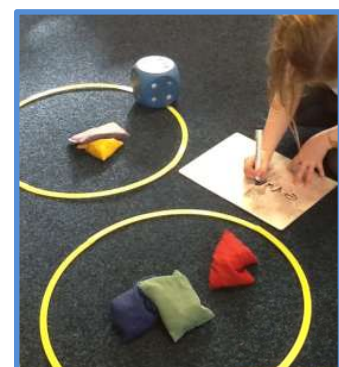
How is maths taught in Reception?

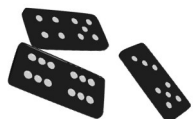
Maths in Reception is a very **'hands-on' and collaborative** subject. Children use a wide range of **concrete apparatus** to ensure they build secure foundations in their understanding of number, shape and pattern. By the end of the year, the children will have been taught all the skills they need to meet the requirements of the EYFS profile and achieve the **Early Learning Goals for maths**.

At Parkfield, we use the carefully constructed **'Number Sense'** materials to support the children's numerical learning. This includes the use of stimulating visual animations to introduce the maths concepts to the children. We also use the NECTM's pattern and special reasoning materials alongside White Rose materials to support the children's learning in the non-number topics such as geometry, measure and statistics. We then build on these materials by providing a **variety of practical experiences** to reinforce and deepen their understanding.

Children learn maths everyday through a variety of approaches: **daily teacher-led maths** learning and **ongoing provision** of child-initiated maths learning and learning through play. They have a stimulating classroom and **outdoor environment**, which provide access to a variety of quality maths resources. Relevant maths **vocabulary, symbols and recording** is introduced and modelled by the teaching staff at appropriate times throughout all maths learning opportunities.

During teacher-led maths learning, concepts are introduced to the class by the teacher, usually using 'Number Sense' as a stimulus. The children then build on this learning by practising the skill in mixed-ability groups, completing a range of practical activities. Adults support and extend the children's learning during these activities, as appropriate. For example, the children may be introduced to the concept of '1 more' using a 'Number Sense' animations, which is followed by **teacher modelling, discussions and questioning to reinforce the key learning points**. The children then move into groups to work on a series of carefully planned, engaging activities where the children **explore and practise** finding '1 more' using a variety of different concrete resources and representations. This could be counting 1 more on a number line, using objects to add 1 more to a group, or rolling a dice and counting 1 more than the number shown. Using a **variety of representations to apply their learning**, ensures concepts are embedded and it gives teaching staff the opportunity to use **skilful questioning** to assess learning and then **support or deepen** the children's understanding as appropriate.





What will my child learn about in maths?

In Reception year, the children are working towards achieving their 'Early Learning Goals' in each area of learning, by the end of the academic year. Below are the current ELGs* statements for maths which the children will be assessed against as either achieved or not achieved.

ELG: Number

Children at the expected level of development will:

- Have a deep understanding of numbers 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.

ELG: Numerical Patterns

Children at the expected level of development will:

- 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.

There are key mathematical skills the children need to establish in order to achieve the ELGs and to prepare them for Year 1 and beyond. These skills, which are taught to the children in Reception, are listed below and are also in our calculation policy:

Number

Children at the expected level of development will:

- 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

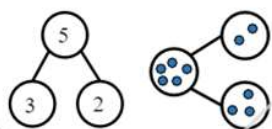
Children at the expected level of development will:

- 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.

What resources will my child use to help them understand?

Here are some of the resources that children use in Reception to help them in their understanding of maths:

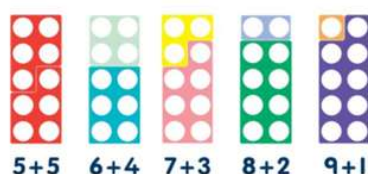
Part –Whole Model



Bead strings



Numicon



Five Frame and Ten Frame



Children also use **cubes, dice, dominoes, digit cards** and any other practical equipment in their learning environment to support their understanding.

What maths vocabulary is used for this age group?

Key vocabulary:

Addition Part, whole, add, more, plus, and, make, altogether, total, equal to, equals, double, most, count on.	Subtraction Part, whole, equal to, take, take away, less, minus, subtract, leaves, difference between, how many more, how many fewer / less than, most, least, count back, how many left, how much less is _?
Multiplication Part, whole, groups of, lots of.	Division Part, whole, share, share equally, one each, two each..., group, groups of, lots of.
Measure Measure, weigh, length, height, balance, Comparison of measures vocabulary - heavy/lighter/light, long/ shorter/short, full/empty, thick/thin, deep/shallow, wide/narrow etc. Time vocabulary -days of the week, months of the year, quick/slow, today/tomorrow/yesterday, morning/afternoon/evening, early/late, hour/day/week/month/year	Shape Shape, pattern, flat, curved, straight, round, hollow, solid, corner, face, side, edge, end, circle, triangle, square, rectangle, cube, pyramid, sphere, cone Position and direction vocabulary - over, under, above, below, top, bottom, side on, in, outside, inside, around, in front, behind, front, back before, after, beside, next to, opposite, apart

Examples of key questions that are used to assess and develop understanding:

What do you notice?

What's the same? What's different?

How many... are there?

How do you know?

Can you show me another way?

How many ways are there?

How can we help at home?

TOP TIPS:

1. Be positive about maths and avoid saying things like 'I can't do maths' or 'I hated maths at school'. A negative attitude could cause your child to think like that themselves.
2. Talk about the maths in everyday life, and ask your child how they work out problems or questions.
3. Let your child enjoy talking about what they've learned, and praise effort and perseverance.

EASY ACTIVITIES TO DO AT HOME:

- Sing songs and rhymes that promote counting and understanding of number e.g. 'Ten green bottles', 'One, two buckle my shoe', 'Five little speckled frogs' etc.
- Practise counting when doing everyday activities, such as counting cutlery when laying the table, counting toys when tidying up etc.
- Play games which encourage counting and subitising – snakes and ladders, dice games, dominoes.
- Cooking/ gardening / DIY with your child, helping to reinforce understanding of measures
- Talk about time – for example, how long does it take to walk to school?
- Go on a shape hunt– how many circles, squares, rectangles, triangles can your child find? You can look for patterns too.
- Look for numbers...on doors, buses, cars, signs, at the shops, in sports scores...anywhere. Remember to talk about what the numbers mean.
- Play with things like shells, bottle tops, beads, Lego – and compare them. These things are great for making patterns too.
- Put things in order – of weight, height, size. Ask your child to help you organise things at home.

Useful websites:

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

http://www.bbc.co.uk/schools/websites/4_11/site/numeracy.shtml

<https://www.topmarks.co.uk/maths-games/5-7-years/counting>

[Activities for Children | National Numeracy](#)

<https://nrich.maths.org/13371>