

Helping Your Child to Learn and Grow in the Early Years: A Guide for Parents

Mathematics

What Is Mathematics?

Early maths skills are some of the most important skills your child will acquire during their first year at school. These skills encompass basic number recognition and ordering, calculation, early multiplication and division skills, understanding of shape, measures and time. In the early years curriculum, maths is divided into two areas - 'Number' and 'Shape, space and measure'.

<p>Look for numbers in the world around you. Talk about house numbers, car number plates, prices of goods in the supermarket and so on. Encourage your child to recognise numbers out of context, i.e. not as part of a number line.</p>	<p>Practise writing numbers. This Guide to Literacy provides some good ideas on how you can do this.</p>	<p>Talk about simple doubling and counting in twos. A perfect place to start is things that come in pairs, such as socks, shoes, earrings, gloves, hands, feet, eyes, ears. Help your child to think about the idea that one person has two shoes, so two people have four shoes etc.</p>
<p>Talk about simple addition and subtraction in practical ways. Support your child to understand what we mean when we say 'How many altogether?', 'How many are left?', 'How many more?' Ideas for doing this include using building toys such as plastic bricks, counting dolls or teddies, e.g. 'I have three dolls and two teddies. How many toys do I have altogether?' Try decorating cakes, e.g. 'I need three sweets on each cake. How many altogether?' or 'We had 6 cakes but Daddy has eaten 2. How many are left?' Practise counting on and counting back.</p>	<p>Number</p> <p>Early Learning Goal - Children count reliably with numbers from one to 20, place them in order and say which number is one more and one less than a given number. Using quantities and objects, then add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.</p>	<p>Talk about simple halving and sharing. A good place to start is when cutting up a piece of toast or a pizza. Have a teddy bears' tea party with your child and help them to share out a bowl of raisins or grapes between the teddies. Explain that sharing means having the same amount each.</p>
<p>Help your child understand what each number actually means. Many children start school able to count confidently, even up to 20 and beyond, but often don't know what each number actually represents when they see it written down. A Number Poster is useful, showing each number with that many objects. Try playing number matching games and jigsaws.</p>	<p>Teach your child to count by showing how you do it. Count the number of sweets in the packet, or the number of trees you see on your walk to school. When they are playing with their building bricks/cars/teddies, show how we can count effectively by lining objects up and either touching each object as we count it, or moving it slightly as we count it.</p>	<p>Set your child a challenge. Ask them to set the table, saying, 'How many knives do we need? How many forks?' Ask them to count out the correct number. Later, you could challenge them by saying, 'We need four spoons but I've only got three. How many more do I need?' or 'Granny is coming for tea tonight, so how many knives and forks do we need now?'</p>

<p>Compare size, weight and capacity. Get your child using words like 'longer', 'shorter', 'taller', 'heavier', 'lighter'. Talk about things you see in the world around you, or create opportunities for comparison, perhaps by rolling playdough snakes ('Can you make a longer/shorter one?') or pouring water into different cups.</p>	<p>Bake a cake. There are so many opportunities for maths in the kitchen. Baking a cake can teach your child about weight, capacity, time, temperature, pattern and number.</p>	<p>Make and describe patterns. This can be done in lots of ways - threading beads, building brick towers, decorating cakes. Talk about the patterns your child has made and ask them to tell you what colour/shape they think will come next.</p>
<p>Talk about time passing. Learning to tell the time is not part of the early years curriculum, but children will learn to sequence events. Help your child to draw a cartoon strip picture of their day, with key events such as getting up, having breakfast, going to school, brushing teeth, going to bed etc. Talk about the days of the week, and use words like 'yesterday' and 'tomorrow'. Talk about the months of the year, and the different things that happen in each month. Talk about the seasons and what we notice as they change.</p>	<p>Shape, Space and Measure</p> <p>Early Learning Goal - Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them.</p>	<p>Let your child play with money. Talk about the values of different coins and ask your child to describe how they are similar and different. Children love to do rubbings of coins using wax crayons. Play 'Shops' and hand over money - no need to worry about exact amounts at this stage! Play 'Buried Treasure' in a box of sand, porridge oats, sawdust or similar - ask your child to find and name the coins, or to guess what they are just by feeling them.</p>
<p>Talk about 2D and 3D shapes that your child knows. Look for these shapes around the house or when out and about and ask your child to describe them. Encourage the use of correct terms such as 'sides' and 'corners'. Have a 'feely bag' with shapes inside and ask your child to guess the shape by feeling it, or ask them to describe it to you so you can guess.</p>	<p>Play with water - at the sink or in the bath. Water play is a powerful way for children to explore and investigate capacity. Give your child a range of jugs, bottles, spoons and cups and let them play. Talk about how much water fits in each vessel and ask your child to predict, for example, how many cups of water it will take to fill the jug. If your child has a sandpit, sand can be used in the same way.</p>	<p>Compare quantities. Play a game where you both grab a handful of objects, such as marbles, beads or plastic bricks, then talk about who has 'more' and who has 'fewer'. Let your child estimate by looking, then help to count the objects and make a direct comparison. This also makes a great link with the 'Number' element of early years maths.</p>