

## Getting Ready for School: Developing Mathematical Confidence

Mathematics plays an important role in your child's development and helps them to make sense of the world around them.

When we talk about maths in the early years of your child's education, we mean:

- Numbers
- Shapes
- Measures
- Patterns.

These are all the early foundations your child needs to be able to start to learn to count, calculate and solve problems in their future learning.

As a parent you can make a huge difference to your child's maths confidence and ability, by supporting their understanding of these at home through everyday activities and experiences.

### How these activities will support my child

Children between the ages of one to five-years-old are beginning to explore patterns and shapes, compare sizes and count objects all around them. Maths doesn't need to be written down, children will learn best from a variety of methods to problem solve and talk about their findings in everyday situations and through play.

#### Young children enjoy:

- Having time to investigate problems and try out new ideas
- Helping with everyday jobs
- Using real objects and solving real problems

The following ideas will help your child to develop their confidence in counting and recognising and using numbers. They will also help your child to explore shape, patterns and measurements in real life contexts.

## Maths is everywhere!

Use everyday experiences to support maths. Talk with your child about maths to build their confidence and help them see how maths is used in everyday life.

- **Outdoors.** Point out and talk about numbers, shapes, size and weight: “We live in number 10.” “That’s a big tree isn’t it, look at that one next to it - that’s even bigger.” Try collecting pebbles, sticks and leaves which can be brought home and sorted into size and shape
- **Cooking or preparing meals and snacks together.** Talk about how many pieces, who has more or less, or how these can be shared out equally. Follow a recipe together, talk about the numbers in the recipe and counting ingredients: “We need two scoops of flour and one egg”
- **Set the table together** and ask: “Who will be eating dinner today? How many plates do we need?” Make purposeful mistakes such as only getting out three plates when your child said they needed four; wait for them to correct your mistake using their problem solving skills
- **Doing the washing.** Hang out the washing or put away clothes together, talking about number, size, shape and pattern: “Can you put all of the socks into pairs? How many pairs do we have? What patterns can you see on the clothes?”
- **Getting dressed.** This provides lots of opportunity to talk about number, pattern and position: “You’ve picked a spotty top to wear today. Can you put it over your head?”
- **Bath time and water play.** Explore pouring, filling and squirting at bath time using different containers, perhaps recycled yoghurt pots or empty plastic bottles. Talk about ‘full’, ‘empty’, ‘more’ and ‘less’. This can be extended to outside if you have the space
- **Bedtime stories.** Enjoy reading a bedtime story together that includes language of time or position e.g. “the dog is hiding behind the train”, repetition, numbers or the language of size and shape.

## Play together

Children learn and solve problems through play. Enjoy playing with your child and provide a range of opportunities for your child to play.

- **Role play** with your child, for example play shops: “I’ll have three tins of beans please and two potatoes. How much will that be?” Use coins, or something to represent coins, to buy items. Encourage your children to add labels to items with prices on
- **Play games** that involve number, counting and problem solving like bingo, dice games, dominoes, board games, jigsaws, building with blocks, LEGO and other construction materials. Talk about how many bricks they will need to make a castle for their favourite toy
- **Provide a range of materials and resources** to explore and solve problems with, for example old bed sheets and sticks to build a den. Resources of different sizes and shapes

such as buttons, stones and sticks can be grouped, sorted, arranged and used to make non-permanent pictures

- **Provide a treasure hunt** and make up clues for them to follow. Use positional language, for example, 'under the tree,' 'next to the front door'. Encourage your child to create their own clues for you to follow
- **Read stories**, tell stories from memory or make up stories that include rhyme and repetition, numbers and the language of maths, for example Goldilocks and the Three Bears
- **Sing number songs and rhymes**, for example Five Little Speckled Frogs or 1,2,3,4,5 Once I Caught a Fish Alive. Make up your own.

### Use the language of maths in play and everyday situations

- **Number:** Count for a purpose for example, "let's count how many slices of apple you have on your plate" and encourage your child to count with you. Ask your child, "how many do you have altogether? How many will you have if you eat one?"
- **Shape:** Talk about the properties of shape as well as shape names. For example, "this box has pointy corners", "feel the side of the stone, it's really smooth." Ask your child to describe the shape to you
- **Patterns:** Point out patterns in the environment on clothes, objects and in abstract things such as action rhymes like 'Heads, Shoulders, Knees and Toes'. For example, "you have stripy socks on", "this leaf looks interesting - what can you see on it?". Look for repeating patterns and ask your child, "can you see a pattern? Tell me about it. What do you think will come next?". Provide resources such as buttons, leaves, stones and support your child to create patterns
- **Position:** Use positional language such as 'under', 'in', 'next to', 'over' in play and everyday situations. For example, "put your coat on the chair", "shall we put the dolls inside the doll's house?"
- **Measures** (size, weight, length, height, capacity, speed): Use language to emphasise measures in everyday situations and play such as 'big', 'bigger', 'biggest', 'long', 'short', 'tall'; 'small', 'heavy', 'light', 'more', 'less', 'fast', 'slow'
- **Time:** Talk about routines to help your child predict what is going to happen. For example, "it's 12 o'clock now, it's time for dinner." This will help them to recognise patterns in time. Support your child to create their own visual timetable to help plan out what will happen during the day and in which order. Talk about first, next, afterwards.

## Play online maths games

Try these fun games with your child to practise early maths skills and help to build your child's confidence:

- Maths with Parents - <https://mathswithparents.com/KWeb?startTime=1587671720953>  
Free videos of activities for parents to play with young children. Contains an early year's section which provides ideas to support children in nursery and reception class.
- Numberblocks – <https://www.bbc.co.uk/iplayer/episodes/b08bzfnh/numberblocks>  
Good for number concepts - start with series one on iPlayer. Also available on YouTube
- Nrich – <https://nrich.maths.org/14588>  
Activities suitable for home learning focusing on questioning and mathematical thinking.
- You can also find free maths ideas and activities at [www.ndna.org.uk/myndna](http://www.ndna.org.uk/myndna)