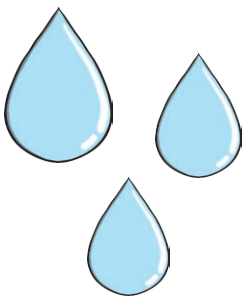
Practical Maths Activities

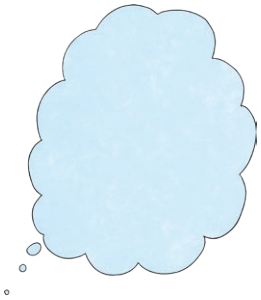
A Guide for Parents

Children's early maths skills start to develop from birth, as they are instinctively attracted to the shapes that make up the human face. As they grow and develop, they continue to learn through their play and sensory experiences. The Twinkl Parents' Guide to Mathematical Development explains the key skills that children learn in their early years, and how you can support this development. To outline, these key skills are:

- **language and vocabulary** of maths (e.g. more than, less than, heavy, light, tall, short, etc.)
- **sequencing numbers** (counting forwards and backwards)
- **understanding position** (on, in, under, behind, next to, etc.)
- **showing awareness of time** (knowing daily routines, talking about today, tomorrow, yesterday, this morning, tonight, etc.)
- **being aware of shapes and patterns in the world around us** (seeing common 2D and 3D shapes and beginning to name them, recognising patterns and sequences)
- **beginning to understanding one-to-one correspondence** (knowing that when we count, one number name represents one object or group of objects)
- **beginning to understand conservation** (understanding that four is always four no matter how it looks or what it refers to, e.g. number '4', word 'four', four buttons on your coat, four years old, etc.)

Maths is all around us, and there are lots of practical things that parents and carers can do to encourage children's development and understanding as part of day-to-day routine. Here are some ideas to get you started. Remember, young children learn best through play and exploration, guided but not directed by adults.

Activity	Things to Do	Areas covered (see list above)
Stories, songs and rhymes 	• Share books with a specific reference to numbers or counting, shape or pattern. • In picture books, count how many animals on the page, how many objects are blue, etc. • Look for the shapes of objects or talk about their position in the picture. • Sing songs and share rhymes that feature numbers and counting: search online for great examples and some help with the tunes and the singing!	All
Sand and water 	• Provide lots of different containers in the sandpit, water tray or bathtub. Talk about concepts such as heavy, light, full and empty. • Look at how much a container will hold, and see if it still holds that amount if you pour it out and then in again. See if you can find two different shaped containers that hold the same amount. • Make shapes and patterns with sandcastles or objects in the sand. • Compare weight or capacity of different containers. • Talk about the weight difference between wet and dry sand.	Language and vocabulary Conservation Shapes Patterns

Activity	Things to Do	Areas covered (see list above)
Playdough or pastry 	• Make and describe different shapes, e.g. short, long, fat, thin. • Make 2D and 3D shapes. • Build a playdough model and use positional language, e.g. 'Now I'm putting the monster's head on top of his body'. • Explore the fact that when you change the shape of a ball of play-dough, the amount of playdough doesn't change. • Make a playdough pattern, e.g. 'red, blue, red, blue' or 'circle, square, circle, square'.	Language and vocabulary Shapes Patterns Position Conservation
Imaginative play 	• Do the laundry together. Sorting clothes into different colours or types (e.g. shirts, trousers) will develop understanding of shape, colour and patterns. Pairing socks will start an understanding of shape matching and counting in twos. • Ask your child to help set the table for the family or for a toys' picnic. Talk about how many forks, spoons, cups, etc. you need, and count out the right amount. • Play shops. Use pretend or real fruit, vegetables or other items and pretend to buy and sell. Great opportunities for counting and getting used to money.	Language and vocabulary Shapes Patterns Sequencing numbers One-to-one correspondence
Cooking 	• Bake cakes together. Talk about weight of flour, volume of milk, number of eggs, the amount of time the cakes will bake for, how hot the oven will be. • Use leftover pastry like playdough (see above) then bake your creations. • Decorate cakes or biscuits in different patterns or with different shapes. • Cut vegetables or fruit into different shapes. • Make a pattern with different colours or shapes of fruit and vegetables. • Count out how many potatoes, bread rolls, carrots, etc. you need to make a family meal.	Language and vocabulary Sequencing numbers One-to-one correspondence Shapes Patterns
Day-to-day routine 	• Talk about the daily routine. Point out days on the calendar and times on the clock and use language such as **today, tomorrow, yesterday, this morning, now, next, after that** and so on. Refer to the days of the week and the idea of weekdays and weekends. • Count whilst brushing teeth, or use a toothbrush timer. • When tidying up, count the bricks back into the tub or the teddies back into the tub.	Time Sequencing numbers One-to-one correspondence

Activity	Things to Do	Areas covered (see list above)
In the garden 	• Count the petals on flowers and leaves on plants or leaflets on leaves such as ferns. • Look for patterns and spirals in things like seed heads and pine cones. • Plant seeds and count how many holes/pots you need. • Find shapes in nature. Go on a scavenger hunt and see how many different shapes you can find. • Look for patterns on flowers, leaves, snail shells, butterflies, ladybirds, etc. • If you're interested in patterns in nature, look up the Golden Ratio and Fibonacci Sequence online.	Language and vocabulary Sequencing numbers Shapes Patterns Position One-to-one correspondence
Out for a walk 	• Look for numbers in the environment, e.g. on car registrations, houses, road signs. House numbers are a great way for starting to introduce odd and even numbers. • Look for different shapes on buildings, signs, vehicles. • Stand on a bridge over a road and count cars. • Talk about what you can see in terms of position, e.g. 'Look, there's a red van **in front of** the Post Office.' 'Look at that white cat **on top** of Granny's fence.'	Language and vocabulary Sequencing numbers Shapes Position One-to-one correspondence