# How can I help my child with maths at home?

A collection of ideas **by parents for parents** for how to build real-world maths into your everyday lives.

It is really important to recognise the maths in the world around us. Otherwise, why are we learning it? In our Maths Matters sessions in the autumn term, parents talked about opportunities in real life to talk about maths with their children. This is a collection of the most-mentioned activities, and some notes on how you can talk about different *operations* (addition, subtraction, multiplication and division) while doing the activities with your children.

Good luck with these activities – and we would love to hear about any of these activities which you have done with your child.

Luke Stratton,
Maths coordinator.

Shopping	
➕	Whenever you are shopping with your child, ask your child to help you to add prices. • You could practise 'estimating' (by rounding to the nearest £ before adding) • You could make a play shop at home, making prices that are appropriate for your child's level. Practise adding the number of objects you have bought, e.g. we have 4 bananas. We have bought 5 more. How many do we have now?
➖	Working out change from increasingly complicated amounts as you pay for items. This can also be when working out pocket money with your children.
✖	When buying several of the same item, we multiply to work out the total price eg. 4 cans of soup 4x60p
➗	Splitting the bill with someone, usually at a restaurant. Comparing single packs to multipacks to decide which is cheaper (multipacks need to be divided to work out how much they cost per pack).

Baking	
➕	Adding weights as you put in extra ingredients when baking.
➖	Often subtraction is needed when pouring liquids. E.g. when the recipe asks for 300ml of water, and you have to add 100ml first of all. How much water will I have left when I have poured out 100ml?
✖	Sometimes we need to double or triple the ingredients to feed more children. Ask your child to help you to do this with each ingredient.
➗	To feed fewer people, sometimes we need to work out half or 1/3 of each ingredient.

Time	
➕	Adding time 'intervals', e.g. planning a journey, adding the time you will spend walking, on the bus and in a car. Parking meter – if you paid for 3 hours at 2:30, when do you need to return to the car?
➖	How much longer until….E.g. "It's 3:20 now. How much longer until play time at 4 o'clock?"
✖	When watching television, how long does it take to watch 3 episodes?
➗	"How many 10 minute episodes can I watch in my 30 minutes of screen time?"

DIY	
➕	Children **love** to 'help' us when we do DIY. Let them help you to measure objects, then add distances to work out how long things will be when pushed together.
➖	"How much do I need to cut off so I only have 50cm left?"
✖	Working out the area of a wall, when we are working out which tins of paint or rolls of wallpaper we need to buy.
➗	When putting up shelves in IKEA bookcases – if I want to space the shelves equally, how many holes do I need to leave between each? If my wall is $30m^2$, how many tins of paint/rolls of wallpaper do I need to buy?

Lego	
➕	Count the bumps on the top of Lego pieces, and add to see how many you have altogether as you build with more and more pieces.
✖	Lego bricks are arranged in *arrays* (see below). E.g. there are 4 rows of bumps, with 2 bumps in each row. 4 x 2 = 8 bumps in total.
➗	Lego can be used to demonstrate fractions (which are related to division). Try Googling 'Lego fractions' for ideas.

Playing board games	
➕	Lots of board games are great for simple adding – e.g. snakes and ladders. You are currently on 54 and roll a 5. Where do you land? Some board games contain two dice which need to be added.
➖	Lots of simple games involve subtraction. E.g Uno (counting down by 1 until you have no cards left), Monopoly involves lots of subtraction as you buy things or pay for services
➗	When sharing cards or pieces between people. Which space is ½ way round the board?

Playing darts	
➕	Darts uses lots of maths! You add when combining the total you have scored with your 3 darts.
➖	When you play darts, you start on 501 point and subtract your score each turn until you reach 0. You could start on a smaller number for younger children.
✖	When you hit a 'double' or 'treble' you need to multiply the number by 2 or 3.

Seeing maths everywhere!		
Arrays		Arrays are everywhere! Egg boxes, muffin trays, tiled floors, ceiling tiles, lego bricks and so on. Just count the number of rows and the number of columns, then multiply together to work out the total. To use these for division, you need to count the total number then divide by the number of rows to work out columns or vice-versa. E.g. when using a normal egg box, there are 6 eggs with 2 rows and 3 columns, so $6 \div 3 = 2$ and $6 \div 2 = 3$.
Shapes		Look out for shapes around you everywhere you go. Name them; count their sides and corners; look for parallel and perpendicular lines; discuss the angles.
Telling the time		It is really important (and really difficult) for children to learn to tell the time, so take the opportunity whenever it arises to practise reading clocks and watches together.