



How to help your child with Maths

In the UK we have an odd cultural phenomenon where it is OK to be rubbish at maths. People wouldn't dream of saying 'I cannot string a sentence together' but are quite happy to announce to the world that they can't do maths and were rubbish at it at school. The issue with this is what message this gives our children, how will you feel when your child says to you 'I am rubbish at Maths just like you Mum.' Our children pick up both verbal and non-verbal clues about the value parents give maths and will behave accordingly. If you are positive and interested in maths then your child has more chance of being too. Be excited and upbeat about numbers, puzzles and problems and the enthusiasm will rub off. When your child gets to maths that you don't understand then be honest and tell them and then get them to explain how they are doing it in school this will help them to embed what they have learned. The most important thing you can do to help your child with Maths is give them a positive 'growth' mindset and help them to understand that it is OK to have a go and make mistakes because they are all learning opportunities.

Curriculum

Children at Newtown have two different curriculums for Maths. Children in Pre-School and Reception classes follow the Early Years Foundation Stage Curriculum and Children in Year 1 and 2 follow the National Curriculum. You can see exactly what is expected for both these stages online, the links are at the end of this handout in the Further Information section.

Assessment

The teaching staff will be informally assessing the children all the time but we have formal assessments at the end of each term and whether your child is working below, at or above the expected level at that point is shared with you in either a progress check or a report.

At the end of Reception the children are assessed against the Early Learning Goal for Maths. Children are recorded as a **1**:working towards the expected level, **2**:working at the expected level or **3**:working beyond the expected level. These assessments are shared with the DfE.

At the end of Year 2 children are assessed in the SATS, children take 2 papers one in arithmetic and one in reasoning. Children are recorded as: **PKF**: working well below the expected level, **WT**: working towards the expected level, **WA**: working at the expected level or **GDS**: working beyond the expected level. These assessments are also shared with the DfE. A link to examples of the papers they sit in Year 2 can be found in the Further Information section.

Teaching

In afternoon Pre-School, children will be introduced to number rhymes and numbers in context through their play and the environment.

In morning Pre-School, children will have a planned adult-directed number activity every week as well as continuing with the number rhymes and through their play.

In Reception, children will be organised in to four maths groups across the year group depending on their level of development and ability to access adult directed tasks. They will have five 15-minute adult directed maths sessions a week, which will increasingly include recording numbers as well as counting and problem solving orally.

In Years 1 and 2, children will be organised in to up to five maths groups across their class depending on their level of ability and need for support. They will have four 1-hour lessons a week.

How to help your child

Three Golden Rules:

1. Keep it Simple: practise what they are already learning in school
2. Keep it Fun: there are lots of games, puzzles and computer games available
3. Keep it Real: maths in context is best, shopping, laying the table, cooking etc.

How to help your child in Pre-School and Reception with Maths

Helping children with maths in Pre-School and Reception is done through singing, counting and modelling language. At some point in Reception year, if children are ready, they will start to learn how to write numbers and may start writing number sentences.

Counting forwards songs

- 12345 once I caught a fish alive
- 1 2 buckle my shoe
- 1 potato 2 potato
- Hickory dickory dock
- 5 little peas in a peapod

Counting backwards songs

- Zoom zoom zoom we're going to the moon
- 5 little ducks
- 5 little speckled frogs
- 5 little monkeys
- 5 little men in a flying saucer
- 10 fat sausages (tricky as counting back in 2s!)

Counting with a steady beat

Children need to be taught to count with a steady beat so that when they count they say one number for each object they are counting. We start by letting them put the objects in a line as otherwise they tend to count the same one twice or even three times.

Counting everywhere

There are many opportunities to count every day, how many steps down the garden path? How many jumps from your bed to the door? How many potatoes do you want? How many dogs are in the park?

The oneness of one

Most children can learn to say the number names in order reasonably easily but the important concept mathematically is to understand the oneness of one and the twoness of two. This is done through pointing and counting each object, 1, 2,3 that means you have got three buttons on your coat, lets count them again, 1,2,3 still 3. Start with numbers up to five and then up to 10 in Pre-School. By the end of Reception they are expected to be able to recognise and use numbers up to 20.

Shape Space and Measure: modelling mathematical language and concepts

Children will learn concepts by hearing and seeing them regularly in context. Let them explore size, shape and capacity by helping you with jobs. With the washing for example, 'Is that your sock or Daddy's?' 'How do you know, is it big or small?' Matching the socks helps with pattern recognition as well as spatial awareness. Let them help with the shopping, can you get me two carrots? One bag of broccoli? Two tins of beans? Can you carry this bag? Is it heavy or light? Cooking is particularly good as it models measuring as well as lots of stirring, mixing and tasting!

It is particularly important to model positional language for Pre-School children, in, on, under, behind, in front, next to. Send them to look for something and give them clues on how to find it using positional language. But only one instruction at a time. Construction toys are perfect for modelling shape and positional language as well as improving their fine motor skills. Start with duplo and get smaller as they become more skilled!

Playing Games

Orchard games do a variety of fantastic early number, colour and shape matching games, these are great for early concepts as well as teaching turning taking and most importantly, losing with grace! There are also plenty of online games that do the same job, particularly the cbeebies website. As with all online games make sure you are playing them with your child so they get the best out of them, Pre-School children should not be allowed unsupervised access on computers, tablets or phones.

How to help your child in Year 1 and 2 with Maths

Helping children with maths in Year 1 and 2 is about building on the good work that you have done before.

Counting

Children need to confidently read, write and use numbers up to 20 and then up to 100. Children always struggle with the teen numbers as they do not follow the pattern so make sure that they really understand these and say them clearly so they are clearly **fourteen** and **forty**. You can do all sorts of different counting for example try starting at 15 and count on to 34 or at 76 and count back to 58, this helps children really understand the number system.

Recording Numbers

It is just as important that children record numbers correctly as letters. Children often reverse the numbers themselves and even the digits in teen numbers recording fourteen as 41. Any help you can give on correct number formation is helpful.

Number Bonds

The pairs that add up to certain numbers are really important for children to know off by heart (like we all learned our times tables). Children need to be able to instantly recall the pairs of numbers that add up to all numbers up to 20, e.g. $4+1=5$, $15+5=20$. It is useful if they know the subtraction pairs as well, e.g. $8-2=6$, $20-4=16$. Children in Year 1 and 2 will practise these through **Brilliant Bonds** that will be done twice a week from when they are ready.

Counting in multiples

Children need to be able to count in 2s, 5s, 10s then 3s, 4s etc. Children need to be able to say them forwards and backwards.

Shape Space and Measure

Children need to be able to recognise all coins and be able to add them up and give change. We rarely use real money these days so try hard to find opportunities to help them use real money in context. Why not try giving them chores that they can earn money for, 10p to load the dishwasher, 5p to pick clothes up off the floor etc. and get them to add up the money at the end of the week.

Children need to be able to tell the time to the hour, half hour and quarter part the hour and add on an hour or half hour. Why not buy them a watch with hands for their birthday and help them to tell the time.

Play games with treasure maps and grids and get children to give you directions, take four paces then turn left etc.

Cooking and shopping are excellent ways to cover comparative language and measures. Let your child help with weighing and measuring and talk about what they are doing.

Playing Games

Teach your children simple card games and play them as a family. Some children love problem solving and there are plenty of early Sudoku and other logic games out there to tempt them, look on-line or ask in the bookshop. Show them first and then let them work them out themselves.

Further information

www.foundationyears.org.uk/files/2012/03/Development-Matters-FINAL-PRINT-AMENDED.pdf

www.gov.uk/government/publications/national-curriculum-in-england-mathematics-programmes-of-study

www.gov.uk/government/publications/key-stage-1-tests-2017-mathematics-test-materials

www.nationalnumeracy.org.uk/your-childs-maths

www.bbc.co.uk/cbeebies/grownups/help-your-child-with-maths

www.bbc.co.uk/bitesize/ks1/maths

www.ilovemathsgames.com

www.nrich.maths.org/frontpage