



Mathematics is a core subject of the curriculum and numerical confidence is hugely important for daily life, whether it is shopping, cooking, managing money or simply getting somewhere on time. This also means that there are plenty of ways you can support children's mathematical learning and development through everyday activities.

Our approach at Capella House School is to create an environment where all students can learn and enjoy mathematics to the best of their ability, while also ensuring that their individual needs are addressed positively and sensitively. We recognise that to help our students reach their full potential in their academic journey, it is essential to build their confidence in their own abilities and develop mathematical skills that are both useful and applicable in the real world

This letter will provide you with some ideas on how we can collaborate with you and how you can help your child with mathematics at home.

The following tips may help support your child's mathematics at different levels. The suggestions are organised according to children's level of skill and confidence, as your child may be working at a level that is different to his/her age or year group.

#### Getting started

- Provide opportunities for your child to count and use numbers as part of their daily activities. 'Let's count the number of steps', 'How many toys are in the box?'
- Encourage children to count forwards, backwards and from different starting numbers. 'Let's count down from 15...now count up from 20'.
- Point out numbers, shapes, patterns and mathematical features in the everyday environment. This might be numbers on a bus, trees along a pathway or the shape of a road sign.
- Talk about the passing of time and point out numbers on the clock. Begin by talking about time to the hour and half hour: 'It is nearly two o'clock' or 'It is nearly half past three'.
- Involve your child in practical activities that will support their mathematical development, including shopping, baking and gardening.
- Play simple games where your child has to roll a dice and move their counter along a board or track, showing them how to count accurately
- Use your own mathematical skills out loud as you go about your everyday life, talking about what you are doing and why: 'I now need to



count how many yoghurts we have left, to see if there is one each.' etc

### Getting going

- Provide opportunities to support addition, subtraction, multiplication and division at home. Try to do this practically, using real objects and situations: 'If each pack of biscuits has 10 biscuits, how many would there be in two packs? If there are 5 people, how many biscuits can they have each?' Cooking can involve weighing the ingredients, working out totals and calculating when a cake will be ready to come out of the oven.
- Learning multiplication facts (times tables) is a key step in supporting children's mathematical development. Begin with the 2, 5 and 10 times tables and by singing or reciting the times table in the usual order. Next, help your child to learn the facts out of the normal order. For example: 'What is 5 x 5?', 'What is 9 x 5?'. Times table CDs, songs and games can help to reinforce knowledge.
- Encourage your child to handle money and play a role in purchasing items. This can support and reinforce times tables e.g. counting in tens for 10p pieces. Give your child pocket money and encourage them to budget or save for particular items.
- Your child may be given written mathematical problems to solve as part of homework. Encourage them to read the problem carefully: 'Can it be solved by adding or subtracting? Or perhaps by multiplication or division?' Underlining keywords can help.
- Continue to play board or card games where your child has to use mathematical skills or keep score. Solving puzzles or logical problems can also support mathematical reasoning and development.

### Getting confident and advanced

- Support your child to develop an understanding of place value. This means the value represented by each digit in a number, expressed in terms of hundreds, tens and units. For example, in 345 the '3' represents 300 (three hundreds), the 4 means 40 (four tens) and the 5 represents 5 (5 units).
- When your child begins to use formal written methods (such as column addition, subtraction, multiplication and long division) encourage them to check the final answer before moving on. This may help them to spot any errors in their calculations.



- Encourage your child to develop an understanding of the relationship between decimals, fractions and percentages. For example, one-half ( $\frac{1}{2}$ ) is the same as 50 per cent (50%), which is also the same as 0.5
- Managing money; Your child can use his compound and simple interest skills to manage his/her money or can give you advice to pick the best bank account. It will also help your child decide which credit card is best to have. People who take out loans need to understand interest. It will also help them figure out the best ways to save and invest money.
- Sports; Geometry and trigonometry can help your child who wants to improve their skills in sports. It can help them find the best way to hit a ball, make a basket or run around the track. Basic knowledge of maths also helps keep track of sports scores. Engage your child in understanding numerical data, published in charts, graphs or percentages. For example, a child who enjoys football may be interested in the statistics published by football clubs: 'Who was the best scorer last season? What was the total number of goals scored?'
- Home Decorating and Remodeling; Calculating areas is an important skill. It will be useful for your child in remodelling future homes and apartments. It will help your child find how much paint they need to buy when repainting a room. It is also an important skill for anyone who wants to install new tiles in a bathroom or a kitchen. Knowing how to calculate perimeters can help your child when deciding how much lumber to buy for floor or ceiling trim.
- Cooking; People use maths knowledge when cooking. For example, it is very common to use a half or double of a recipe. In this case, people use proportions and ratios to make correct calculations for each ingredient. If a recipe calls for  $\frac{2}{3}$  of a cup of flour, the cook has to calculate how much is half or double of  $\frac{2}{3}$  of a cup. Then the cook has to represent the amount using standard measures used in baking, such as  $\frac{1}{4}$  cup,  $\frac{1}{3}$  cup,  $\frac{1}{2}$  cup or 1 cup. Continue to involve your child in practical mathematical problems. For example, doubling up the quantities of a recipe or the measurements needed for DIY. Encourage them to first estimate and then calculate an answer. The best place to practice ratio and proportion is your kitchen. How many eggs are required to bake 12 cupcakes, given that the recipe calls for one egg per 4 cupcakes? Does the same proportional logic work when you get help to paint the fence? 2 workers paint a fence in 12 hours. How long would it take 6 workers to paint the same fence?
- Shopping; Your child will use maths when buying different items. When buying a new computer, your child will need to figure out which store



offers the best price or best financing. Maths is useful in finding the best deal for food items. For example, your child will need to decide which pack of juice to buy when given a choice of 500ml or 2 litres, 12 pack or 24-pack. Stores often have sales that give a percentage off an original price. It is helpful for people to know how to figure out their savings.

This maths skill is very useful because it helps us calculate discounts so we can buy an item for the best price offered.

The Family Maths Toolkit resources help families enjoy maths together.

These short, fun maths activities can be used at home. They help you engage with children's maths learning and boost your child's confidence with numbers. Access the Family Maths resources for free by filling in this [form](#).

### **Please also see these websites to support you**

National Numeracy is a charity promoting numeracy for children and adults. The [Family Maths Toolkit](#) offers links to a wide range of numeracy-based activities for children. Adults can use the [Maths Challenge materials](#) to support adult numeracy (age 14+).

[BBC Bitesize](#) offers support across a wide range of subject areas, including mathematics.

[Oxford Owl](#) is an educational website by Oxford University Press, including a useful [jargon buster](#) of educational terminology.

<https://www.mathsisfun.com/definitions/> is an illustrated dictionary which visualises the definitions.

[Khan Academy](#) provides instructional videos for all ages and stages of mathematics.

The [Nrich Maths Project](#) has resources for children and adults.

### **If you'd like to support your child's learning for their academic journey, you can always utilise the resources below:**

For both primary and secondary level mathematics, you can visit <https://corbettmaths.com/>. Here, you'll find a range of videos and worksheets that are excellent for revision and practice at home. The "5-a-day" practice is particularly helpful, offering a brief but effective way to revisit topics with just five questions each day.



For revision and exam preparations, websites such as <https://www.mathsgenie.co.uk/>, <https://www.physicsandmathstutor.com/> for GCSE <https://passfunctionalskills.co.uk/>, for Functional Skills and Entry Level and <https://www.bbc.co.uk/bitesize/subjects/z6vg9j6> , <https://mathsbot.com/>( for all levels ) are valuable resources.

Teachers set optional home tasks every Friday on IXL, so please remind and encourage your child to check their IXL account for quizzes and Google Classroom for the assignments. Please email the school if your child doesn't know his/her login details.

Playing games can be a fun and effective way to practice maths. You can find suitable games for free on the websites provided below:

- <https://www.topmarks.co.uk/maths-games>
- <https://mathsframe.co.uk/en/resources/category/22/most-popular>
- <https://www.mathsisfun.com/>
- <https://www.timestables.co.uk/>
- IXL games

These resources offer a variety of tools to support your child's learning journey.