

Article for Parent Partnership Newsletter

Helping your child with maths at primary level

During the early stages

From the beginning children need to develop a positive approach. Maths can and should be fun! So what can you do to help?

Firstly, encourage your child to see that 'maths' is not just in school, but everywhere, rooted in what we all do. We work out costs, measure curtains and floors, read time by our clocks and watches and weigh out ingredients when baking or cooking. Children need to see where maths fits into the world so that 'school maths' is seen to have real purpose.

Talk is crucial. Mathematical words or phrases (more, less, add, take away, half, quarter, heavy, light, long, short, fast, slow) need to be talked about so that children grasp the concept alongside the word. 'Half' might refer loosely to half a cake, half a bar of chocolate or half of your child's glass of milk, or more precisely to half of a number. Bring talk naturally into simple mathematical activities as you do them.

The idea of counting and an understanding of what numbers mean is also important at this early stage. Many children struggle to count objects accurately and may not realise what each number means in relation to others in the same range. They need to understand that 2 (3, 8) can refer to dogs, rabbits, people, teddies, sweets and so on, also that 5 is more than 4, and 2 is less than 8 but 2 more than zero.

Activities to try:

- Count stairs with your child on his way to bed – 1,2,3 ..., only 1 more
- Count sweets in the packet – how many have been eaten, how many are left?
- Talk as you cut cake into halves or quarters – how many quarters altogether?
- Play games to find different shapes in your home, or when you are out and about. How many rectangles (for example, windows) can you find? How many circles (clock)? Or play 'I spy', for example, I spy something that's blue and a rectangle.

During Key Stage 1 the emphasis is on mental calculation. Apart from occasional jotting, children are encouraged to work out problems in their heads, relying heavily on memory, mental agility and instant recall of simple facts as they acquire them.

Activities to try:

- For memory, try Kim's game - place about 10 objects on a table. Give your child a few moments to look at them then take one (or 2) away. Can he identify what is missing?
- To develop mental agility, play the chain game. Keep numbers below 10 at first until your child shows readiness for greater challenge. You may say 'I

have 6. What is 2 more?' Your child then says '8'. You may say 'Take away 3' Your child should say '5'. You may say 'Double it.' Your child should then say '10'. Each answer is derived from the number before it and your child has to remember the new answer each time. This helps to develop memory and mental agility

- Number bonds are an example of factual recall for solving problems quickly. Play this game to match number bonds to 10. *You say 6. Your child says 4. You say 1. Your child says 9.* For further challenge, try number bonds to 20 if your child is ready. *You say 11, or 12, or 7. Your child then says 9, or 8, or 13.*

With each new idea language remains important. Remember to talk about each new topic or unit of work, for example, halving and doubling. Practice these until they become facts – double 5, double 10 and so on. Knowing basic halves and doubles as facts also supports mental problem solving.

The concept of 'tens and units' is essential to understanding numbers from 10 onwards (for example, knowing that '15' means a set of 10 and a set of 5) and the first step towards understanding double digit numbers to 100. Your child will need to solve problems such as:

- What number will be 10 more than 57?
- What number will be 5 less than 62?
- What is half of 50?
- How many tens are in 78?

At this stage, your child may use apparatus to construct and 'see' different number values, and to consolidate the concepts (for example, that 26 is 2 sticks of ten and 6 units).

Moving on

As your child develops towards more complex numbers he needs to establish a 'sense' of the number system (for example, the value of 2398). Your child needs to apply logic to problem-solving in order to mentally check answers. For example, when adding or multiplying, the answer must be a larger number. When subtracting or dividing, the answer must be a smaller number.

The following types of questions should encourage your child to **think** about maths:

- When we double a number is the answer more or less than what we started with?
- Do squares and rectangles each have 4 right angles (yes)?
- Which of these calculations is the odd one out – finding half a number, adding 20, dividing by 3, or taking 10 from a number? The response should be 'adding 20' as all the rest have an answer that is less than what we started with.

Remember that such questions do not seek numerical answers, merely logical and thoughtful responses.

Never attempt to move your child on before he is ready. If your child is working towards understanding numbers to 20, there is no point in trying to solve problems with numbers over 100. Talk to the teacher if you need to know where your child has reached in his understanding of numbers and stick to that level until he is secure.

Finally, always encourage your child to have a go without being afraid of getting it wrong. From the wrong answers emerge right ones. We all learn from the mistakes we make. Praise your child for having a go and be sensitive to the errors he may make.