



How to help with..... Mental Maths!



Introduction

In a nutshell, how you were taught mathematics in school is completely different today.

Teachers are now concentrating on helping children do a wider range of calculations in their heads.

As a result, there is probably less maths to see in your child's book and what there will not be are sums in columns.

Please note— SUMS are not called sums anymore— They are NUMBER SENTENCES!

Check out the tips on how to help your child's mental maths.



Tricks of the trade

At home, you can help by showing how much maths we use in everyday life:

How many knives and forks are needed to lay the table?

How many books will fit on the shelf?

How much did it cost when you bought some sweets, and were you given the correct change?

Playing counting games and singing songs such as One Green Bottle begin to lock the order of numbers into your child's head:

Can she/he count to 10?

Can she/he count it backwards like a rocket launch countdown?

Can she/he count in twos? Or fives? Or tens?

Your child needs to be able to instantly recall key facts (teachers call them number bonds) to help her/ him calculate quickly.

She/he needs to know all the pairs of numbers that make 10. These can be used to help make other number bonds.

For example— if you know $8+2=10$, you can begin to understand that $80+20=100$ and that $18+2$ makes 20, so $18 + 12$ makes 30.



Tools of the trade

These number bonds need to be learned and sometimes equipment is useful.

Handily, our bodies are perfectly matched to the decimal number system because we have 10 fingers to count on.

TIP! If your child seems over reliant on this, let them use their fingers but with them behind their back (this helps your child ‘see’ the numbers in their head).

Another useful piece of equipment is a centimetre ruler because you can count along it. This is called a number line and children progress from this to drawing their own number lines to count along (they will often draw these in their books). From this, many start to see a number line in their head and count along it.

A 100 square, which displays all the numbers from 0-100 is another tool your child will use in school and which they may start to see in their heads. This square is very handy for seeing patterns in numbers (like odd/even and how to add 10 to any number by going down a row).



Turning the tables

Times tables are valuable for teaching multiplication and division facts. For example, if you know that four 2's make 8, you also know that 8 divided by 4 is 2. Your child will begin to learn their two and ten times tables in Year 2, progressing to the 3, 4 and 5 times tables. By Year 4 they will need to know all the times tables up to 10 including the division facts.

TIP!

Remember each new table only has a few new facts. If you know the 3 times tables, you know $6 \div 3 = 2$ and $9 \div 3 = 3$. Also, you can find the 4 times tables by doubling the answers to the 2 times tables.

For example, if you know $4 \times 2 = 8$ Then you double the answer to find $4 \times 4 = 16$.

Double 8 is 16.

Simply being able to recite a table does not show understanding of it. Ask your child to say the table in random order. Ask them, how they could check their answer? What is the inverse operation ? For example, $4 \times 3 = 12$, so $12 \div 4 = 3$.

Training that brain

Play lots of number games to train your child's brain.

On car journeys, spot numbers on registration plates, road signs and doors, play doubling and halving them.

Take it in turns to make up number statements (sums) with the chosen number as an answer. Encourage use of all four functions (add, subtract, multiply and divide) and multi stage number statements (like $2+10-5$).

What is one more than this number? Five more? Ten more? Two more?

What is one less than this number? Five less? Ten less? Two less?

Play with counters or bricks, putting colours into pairs and counting totals in twos.

Estimate things in everyday life— how many sweets are in the pack? Then check.

Work on time by asking questions like, There's 10 minutes left. What time will this programme finish?

Mental Strategies

One very useful thing you can do, which many parents find fascinating, is ask your child what mental strategies they have been learning. You'll be amazed!

Here are some to try out:

- To divide by 2, just halve.
- To divide by 4, halve twice.
- To multiply by 2, double.
- To multiply by 4, double twice.
- To multiply by 10, move the digits one place to the left, and place a zero in the 'units' column.
- To divide by 10, move the digits one place to the right.
- To divide by 5, double the number and divide it by 10.
- When adding, start with the tens, not the units.
- Use near doubles, like $6+5$ is the same as double 6, take away 1.
- When adding, find the easy pairs. Example: $12+7+8$ is easier as $12+8=20$, then add 7.
- Count up to do some subtraction. Example $103-97$ can be done by counting on from 97 to 103.



Bankfoot Primary School

Maths Targets

Year 2—rapid recall of multiplication facts and related division facts.

MUST	Count forward and backwards the first 10 multiples of 2, 5 and 10.
SHOULD	Know by heart multiplication facts for 2 , 5 , 10 .
COULD	Know by heart multiplication facts and related division facts for 2 , 3 , 4 , 5 , 10 .



Number line

0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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100 Number Square

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

I hope this booklet helps you to support your child more confidently.

If there is anything in this booklet that you are unsure of, or would like further information and ideas, please feel free to come and speak to any of the Year 2 staff.

