Information for parents Maths

Helping your children

Keep trying. You can do it!

Remember: It's ok to get things wrong. That's what helps us learn. Praise the effort, the process and their journey rather than their speed or an accurate answer.

Maths is

fun!

Thinking about maths...



x	1	2	3	4	5	6	F	8	9	10	11	12
1	1	2	3	4	5	6	7	8	٩	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	٩	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	Ŧ	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80	88	96
9	٩	18	27	36	45	54	63	72	81	90	99	108
10	10	20	30	40	50	60	70	80	90	100	110	120
11	11	22	33	44	55	66	77	88	99	110	121	132
12	12	24	36	48	60	72	84	96	108	120	132	144

Milestones I can...

EYFS- double facts and know how quantities can be distributed equally

Y1-skip count in 2,5 and 10s

- Y2- recall 2, 5 and 10 times tables
- Y3- recall 3, 4 and 8 times tables

Y4- recall all times tables up to 12 x 12

Y5 and Y6 – rapidly recall all time times tables and be able to use and apply times tables to solve number problems including fractions, percentages and decimals

Concrete













Pictorial





Pictorial

- Commutative Property
- $5 \times 3 = 3 \times 5$



Concrete, Pictorial and Abstract

"There are 4 apples in a bag. I buy 3 bags. Altogether I buy 12 apples."



Songs and games



doodlemaths



Number Bonds

"Why do children need recall of number facts? After all, as adults we all carry mobile phones with a calculator/have access to a computer!"

"So why focus do on math facts? Math facts fluency leads to higher order mathematics Through automaticity students free up their working memory and can devote it to problem solving and learning new concepts and skills" (Geary, 1994)., Quite simply, a lack of fluency in basic math fact recall significantly hinders

a child's subsequent progress with problem-solving, algebra and higherorder math concepts. Fluent math facts mean less confusion.

Math facts are important because they form the building blocks for higher-level math concepts. When a child masters his/her math facts, these concepts will be significantly easier and the student will be better equipped to solve them faster. If the child spends a lot of time doing the basic facts he/she is more likely to be confused with the processes and get lost in their problem solving calculations At the start of year 3 we would expect children to know all their addition and number bond facts to 10.

Adding I Bonds to 10					Adding 10			Bridging/ compensating		YI facts		
Adding 2			Adding 0		C	oubles		Near do	oubles	facts		
+	0	1	2	3	4	5	6	7	8	9	10	
0	0+0	0+1	0+2	0+3	0+4	0 + 5	0+6	0 + 7	0+8	0+9	0 + 10	-
I	1+0	1+1	1+2	1+3	1+4	1+5	1+6	1 + 7	1+8	1+9	1 + 10	
2	2+0	2 + 1	2 + 2	2+3	2+4	2+5	2+6	2+7	2 + 8	2+9	2+10	
3	3 + 0	3 + 1	3 • 2	3 + 3	3 + 4	3 + 5	3+6	.3 + 7	3 + 8	3+9	3 + 10	
4	4+0	4+1	4+2	4+3	4+4	4+5	4+6	4+7	4+8	4+9	4+10	
5	5+0	5 + 1	5+2	5+3	5+4	5 + 5	5+6	5 + 7	5+8	5+9	5 + 10	
6	6+0	6+1	6+2	6+3	6+4	6+5	6+6	6 + 7	6+8	6+9	6+10	
7	7 + 0	7 + 1	7 + 2	7+3	7 • 4	7 + 5	7 + 6	7 + 7	7 * 8	7+9	7 + 10	
8	8+0	8+1	8+2	8+3	8+4	8+5	8+6	8 + 7	8+8	8+9	8 + 10	
9	9+0	9+1	9+2	9+3	9 • 4	9+5	9+6	9+7	9+8	9+9	9+10	~
10	10+0	10+1	10+2	10+3	10+4	10+5	10+6	10+7	10+8	10+9	10+10	



How do we extend children who have become fluent in their times tables?

The N Rich website has many examples of challenges which encourage children to apply their knowledge. Here is an example of a task we may give children who mastered their number bonds.



How can you help your child in KS2?

- Keep number bond sharp practice them using concrete apparatus initially and then move to pictorial before abstract.
- Ensure that your child see the links between number (inverse). E.g. 6 + 4 = 10, 4 + 6 = 10, 10 4 = 6 and 10 6 = 4. As adults we assume they understand this but in reality, a child who is not number fluent won't necessarily make this links.
- Keep overlearning facts. A musician may be able to play a piece of music but they need to continue to practise it or they will lose those skills.
- Use apps if time is short there are lots of useful apps and Doodle Maths will undoubtedly support your child to overlearn concepts.
- Support your child to learn their times tables, telling the time, money,

Help by...

- Knowledge of number, help them explain what comes before or after a given number, how the number is made, e.g. tens and ones.
- Encourage them to draw pictures and models such as part, whole and bar models.
- Support them with their homework, encourage them to answer questions in full sentences.
- If you are unsure, please ask your child's teacher to explain