



Maths Newsletter

This is a quick newsletter to help keep you up-to-date with some of the exciting developments in maths at The Bellbird, whilst sharing a few ideas and pointing you to useful resources.

Mental Maths

Nationally, all children in Year 4 from this year onwards will have to sit the Multiplication Tables Check (MTC), where they be asked to recall all times tables up to 12x12. The test will be administered by the school in June. For more information on the check (and a chance to have a go!), please follow this link:



<https://mathsframe.co.uk/en/resources/resource/477/Multiplication-Tables-Check>

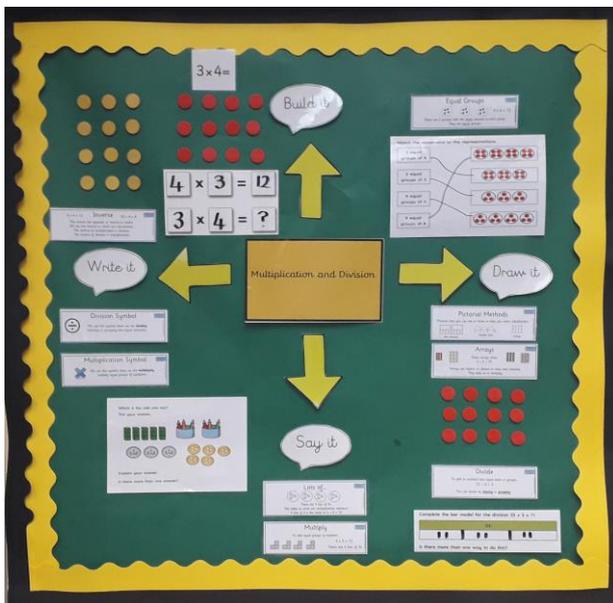
Being fluent in number isn't just about knowing your times tables, however. Instant recall of additions up to 9+9 is vital. And if you know your additions, you know your subtractions; and if you know your multiplications, you know your divisions! We'll send home more tips on how to help your child become increasingly fluent in number later in the year, but, for now, please find attached a suggested progression through years 1 to 6.



A great resource that we buy into as a school to help with multiplications is "Times Tables Rock Stars" <https://trockstars.com>. If you're having any issues with it, or have lost your password, please speak to Mr Gilmore.

It's wonderful to see more and more children using "Mathletics", particularly for homework. The set homework is designed to consolidate what is being taught in class during each half term, and it ensures that your child has grasped all the concepts that they should know for that year group. After Christmas, maths homework will be set for Year 1. For Year 2 and higher, it will continue as normal. Find it at: <https://www.mathletics.com/uk>.





Too often, when helping a child in maths, it is tempting to go straight for teaching “abstract” number concepts. A child can only understand what abstract numbers mean if they first encounter them in real life – by actually touching and using real objects. A child may then be able to represent this concept visually by drawing it and talking about it. Finally, when the concept is fully grasped, the child will be able to describe it using digits alone. This is the idea behind the “Build

it, Draw it, Say it, Write it” approach, which some of you may have seen on our maths displays. At the moment we are, as a teaching team, revisiting the wonderful physical resources (manipulatives) we already have in order that we use them to their maximum potential and aid our children’s understanding.



Finally, we are continuing to take our maths learning outside! All teachers enjoyed our “outdoor-learning” staff meeting, and are beginning to incorporate some ideas into lessons – watch out for increased use of compasses and orienteering! Also, we’re hoping to create our own maths trails for Sawston, combining amazing maths with our local environment. To try out some already-created maths trails for yourself follow the link:

<https://www.cambslearntogether.co.uk/school-improvement/english-and-maths/maths-trails/>

Thanks again for all your support and encouragement.

A Gilmore & L Oakley (Maths Coordinators)

Mental Maths Progression

	Addition and Subtraction	Multiplication and Division
Y1	<ul style="list-style-type: none"> Recall any addition facts with total up to 10 and 20, e.g. $11 + 3 = 14$, or $13 + 7 = 20$, or what to add to a number to make 20, e.g. $13 + \square = 20$, including zero. Recall subtraction facts up to 10 and 20, e.g. $16 - 7 = \square$. Know one more/less than numbers to 100 	<ul style="list-style-type: none"> Identify odd and even numbers to 20 Recognise numbers in the 2 times table Recognise numbers in the 5 times table Recognise numbers in the 10 times table Recall double of any number up to and including 10
Y2	<ul style="list-style-type: none"> Recall and use addition and subtraction facts to 20 fluently Can quickly calculate what must be added to a two-digit number to make the next multiple of 10 Can quickly calculate pairs of multiples of 10 with totals up to 100, e.g. $20 + 60 = 80$, or $60 + \square = 100$, and related subtraction facts Know one or ten more/less than any two-digit number 	<ul style="list-style-type: none"> Recall doubles and corresponding halves for all numbers to 20 and multiples of 10. Identify odd and even numbers to 100 Recall multiplication and division facts for the 2, 5 and 10 times tables Can derive related facts, using commutativity and inverse relations
Y3	<ul style="list-style-type: none"> Know one more/less than any three-digit number Know ten more/less than any three-digit number Know one hundred more/less than any three-digit number Know how to use mental methods to add and subtract two two-digit numbers, including answers greater than 100 Can use mental calculation strategies to add and subtract 3 or 4 numbers up to 20 	<ul style="list-style-type: none"> Recall doubles and halves to 100 Recall multiplication and division facts for the 3, 4 and 8 times table Use mental strategies to count in multiples of 50 and 100 Can derive doubling and corresponding halving facts for multiples of 10 and 100
Y4	<ul style="list-style-type: none"> Know number bonds to 100, including subtraction facts e.g. $100 - \square = 63$ Know what must be added to any three-digit number to make the next multiple of 100 Can recall common fraction and decimal equivalences and can calculate common fraction pairs to make 1 whole 	<ul style="list-style-type: none"> Recall multiplication and division facts for the 6, 7 and 9 times tables Recall square numbers to 10×10 Can use known multiplication facts to multiply 3 numbers together Recognise and use factor pairs to 100 Know common fraction and decimal equivalents including fraction pairs to make 1 whole Can derive doubling and corresponding halving facts for multiples of 100
Y5	<ul style="list-style-type: none"> Can quickly calculate sums and differences for decimals to 1 whole, e.g. $0.23 + 0.77 = 1$; and to 10, e.g. $6.3 + 3.7 = 10$ Know what must be added to any four-digit number to make the next multiple of 1000 Can use mental methods to calculate addition and subtraction facts for multiples of 10, 100 and 1000 	<ul style="list-style-type: none"> Recall multiplication and division facts for all times tables to $12 \times 12 = 144$, and $144 \div 12 = 12$ Recall square numbers to 12×12 Use known multiplication and division facts to derive other facts, including three and four-digit numbers Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
Y6	<ul style="list-style-type: none"> Can use a variety of strategies to calculate mentally with increasingly large numbers, including multiples of 10,000 and 100,000 to 1,000,000 Use their knowledge of the order of operations to carry out calculations more than 3 numbers Can quickly calculate what must be added to a decimal number (made of ones, tenths and hundredths, e.g. 7.39) to make the next whole 	<ul style="list-style-type: none"> Can identify and recognise prime numbers up to 100 Can use known multiplication and division facts to perform mental calculations with increasingly large numbers Can derive decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$) or percentage (e.g. 37.5%) Can recognise and use the notation for squared and cubed when calculating mentally