Parent's Guide to Helping Your Child with Maths

Maths is a hierarchical subject so new learning often relies on a solid understanding of what came before. This guide aims to:

- Inform parents on how Maths is taught at Banks Road
- Outline the progression of skills in Maths from Reception to Y2
- Encourage parents to support their children at home
- Provide key information on up-to-date strategies and teaching approaches that can be continued at home

Number Sense

Number sense is an intuitive understanding of numbers, their size, relationships, and how they are affected by operations such as adding, multiplication and division.

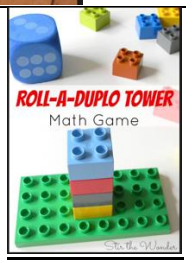
Most children learn to count to 10 because it is like learning a rhyme.

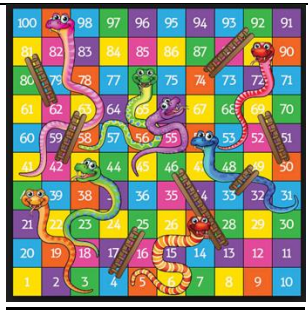
However, it is important children have a clear understanding of the value of each numeral.

We do this by:

Matching objects to the numeral. The image shows 'Numicon' but you can use anything.	
Ordering the numbers in a line.	
Writing the numbers and matching the value with objects or pictures. This can be messy and fun in sand, glitter, soap flakes etc.	
Children should practice **counting on their fingers** and recognise that four fingers and a thumb is five. They **need** to say the number as they put up/or down their finger.	

Activities to Try for Numbers 1-10

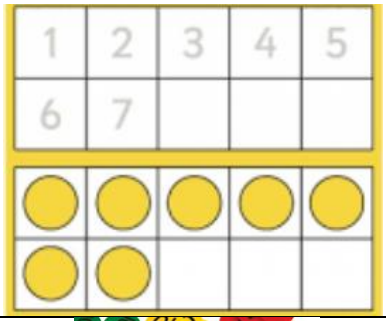
Practical Number boxes or bottles that need to be filled with the correct number of objects.	 
Construction Play with Duplo, Lego or big cardboard boxes and encourage counting skills.	
Crafts There are so many wonderful craft activities linked to mathematics. Search for 'Number Crafts' or 'Maths Crafts' online.	 
Physical *Can you do five star jumps? Can you ride your bike around 4 times?*	

Musical Beat the number on a drum or clap it. *Can you count the beats? Can you say my number? Or sing: 1,2,3,4,5 once I caught a fish alive and other number songs.*	
Games Playing board games and other games involving number really does help! Snakes and Ladders, Dominoes, Bingo, Skittles etc.	
Baking Making real and pretend cakes encourages mathematical learning opportunities.	

Similar activities can be used to support number recognition of 11-20, however children can get confused when it comes to **'teen'** numbers and that is where place value comes in.

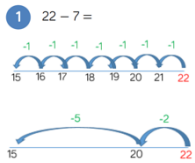
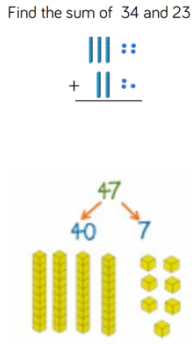
Number-Place Value

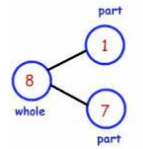
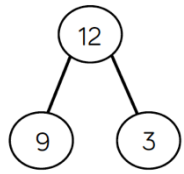
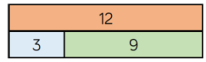
Next the children will read and write 2-digit numbers. To support children's understanding of place value (tens and ones) we use many different resources.

The 100 square Can be used to support counting and recognising patterns in number sequences.	
Dienes (Base 10) Used to represent 10s and 1s when partitioning a 2-digit number.	**25** 
Ten Frames Particularly good for identifying number bonds and patterns.	
Tens and Ones Counters Used to represent 10s and 1s when partitioning a 2-digit number.	

Number-Addition and Subtraction

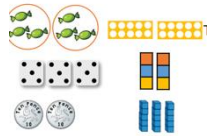
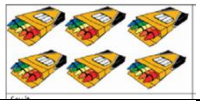
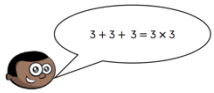
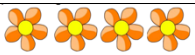
Please read our Calculation Policy 2017 that can be found on the school website as this will provide greater detail on calculation strategies taught and outlines the progression from EYFS to Y2.

Objects and Resources		Children still need to be able to use practical equipment and pictorial representations.
The 100 Square		Encourage children to recognise the changes to the digits. E.g. 23 + 10 *The tens digit is one more but the ones have stayed the same.*
The Number Line		Can be used to count forwards and backwards in ones or to identify number bonds and patters. E.g. 22-7 = 15 but if we know 22-2 = 20 then we can subtract 5.
Dienes (Base 10)		Can be used practically or drawn to support addition and subtraction. 47 – 32 = 15 Children would draw the base 10 to represent 47 then cross out the 32. *What is left?*

Part Whole Model	 	Within the part whole model, you can use real objects, concrete objects, pictures or numbers. The two parts combine to make the whole and can support with addition and subtraction e.g. 7 + 1 = 8 1 + 7 = 8 8 – 7 = 1 8 – 1 = 7
Bar Model		9 + 3 = 12 3 + 9 = 12 12 – 3 = 9 12 – 9 = 3 Remove a number for problem solving opportunities!
Written Strategies	2 3 + 4 0 5 6 – 3 0	Children work their way towards column method; preparing themselves for the Mathematics Year 3 curriculum. They can record 23 + 40 = 63 by identifying the tens and ones and adding them together mentally but also have the opportunity to practice column addition and subtraction (not crossing tens).

Number-Multiplication and Division

Please read our Calculation Policy 2017 that can be found on the school website as this will provide greater detail on calculation strategies taught and outlines the progression from EYFS to Y2.

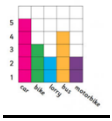
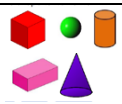
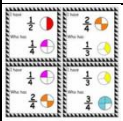
Grouping		Children need to recognise equal groups of 2s, 5s, 10s and 3s.
Repeated Addition		5 + 5 + 5 + 5 + 5 + 5 = 30
Arrays		6 x 3 = 18 3 x 6 = 18 18 ÷ 6 = 3 18 ÷ 3 = 6 **Tip:** Arrays can be divided with straws!
Written Strategies		Being able to re-write addition number sentences as multiplication number sentences.
Times Tables		Children do not need to learn their times tables by heart but should be confident to count forwards in 2s, 5s, 10s and 3s. They should also be able to solve a range of times tables problems that encourage counting skills. E.g. *How many petals are there?*
Sharing		Division as sharing equally is a great way to start. *There are 15 sweets and 3 friends. How many will each friend get?*

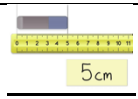
Other Key Areas of Maths

It is important to look at the statements specific to the year group your child is in. For example, the expectations for 'Shape, Space and Measures' in EYFS are very different from those in Y2.

Although the specific areas are taught in blocks, they are all linked closely. For example, a Y1 teacher teaching addition may use a problem involving money or length. A Y2 teacher teaching multiplication may link it to fractions e.g. 4 x ¼ = 1 whole

At Home

Measurement: Money		Encourage children to play and use money in the home and when out and about.
Statistics		Choose a subject and gather data. Children could record a bar chart, pictogram or tally chart. They could draw it or make it from sticky notes or other objects.
Geometry: Properties of Shape		Look for 2D and 3D shapes in the environment and point them out. Name them and talk about their properties. Build 3D structures and discuss shapes.
Fractions Y2		**Food-** it sounds obvious but don't miss an opportunity to talk fractions when ordering a pizza or sharing a chocolate bar!

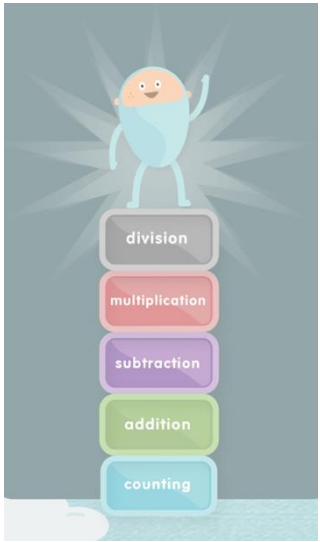
Measurement: length and height		Order objects from shortest to longest or smallest to tallest. Play with measuring equipment: rulers and tape measures. Pick up a paper one from IKEA
Measurement: Time		Talk about time! Days, weeks, months, hours and minutes. When they are old enough buy them their own watch and discuss key times in the day.
Position and Direction		Robotic toys are great for this or programming apps on tablets. Use positional language: forwards, backwards, left and right. Play robots and take turns directing one another to move.
Measurement: Mass, Capacity and Temperature		Use the items around your house for measuring capacity. Water play! Baking

Use Technology

These websites provide information and a wide range of games to cover all areas of the Maths curriculum.

https://www.topmarks.co.uk/	Topmarks
http://www.crickweb.co.uk/ks1numeracy.html	Crickweb
https://nrich.maths.org/primary-lower	NRICH
http://www.ictgames.com/resources.html	ict games
http://www.bbc.co.uk/schools/websites/4_11/site/numeracy.shtml	Schools - Primary ages 4-11
https://www.oxfordowl.co.uk/for-home/advice-for-parents/maths-at-home/	Oxford OWL
https://www.gov.uk/government/publications/national-curriculum-in-england-mathematics-programmes-of-study	GOV.UK
https://www.gov.uk/government/publications/2016-key-stage-1-mathematics-sample-test-materials-mark-schemes-and-test-administration-instructions	GOV.UK Sample SATs

If your child has a tablet and loves to use it then download some Maths apps.



Banks Road Infant
& Nursery School

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