A Guide to Helping Your Child with Maths

Alongside our Calculation Policy, this document aims to:

- 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
- Further inform parents of how Maths is taught at Banks Road Infant & Nursery School

Number Sense

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

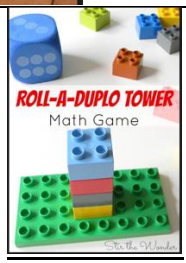
Most children learn to count to 10 because it is like learning a rhyme.

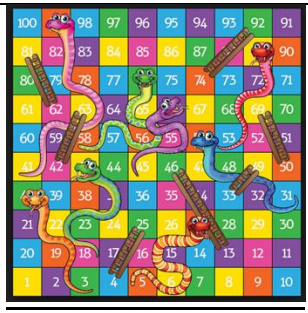
However, it is important children have a clear understanding of the value of each numeral.

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

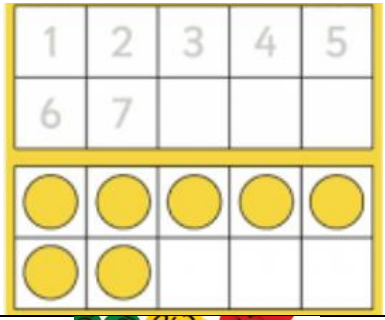
Practical Number boxes or bottles that need to be filled with the correct number of objects.	 
Construction Play with Duplo, Lego or big cardboard boxes and encourage counting skills.	
Crafts There are so many wonderful craft activities linked to mathematics. Search for 'Number Crafts' or 'Maths Crafts' 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.

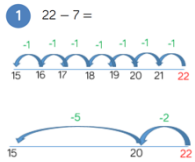
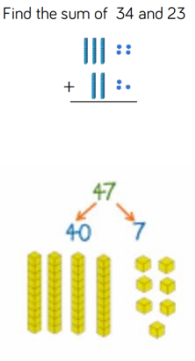
Number-Place Value

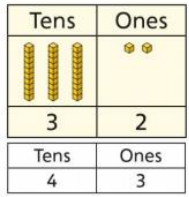
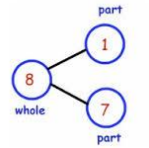
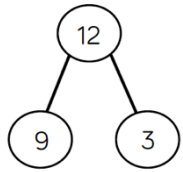
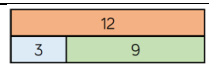
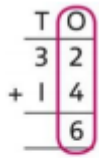
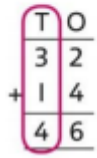
To support children's understanding of number, we use a wide variety of resources and teach a range of strategies. Below are some of the main ones you may hear the children talk about.

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.	

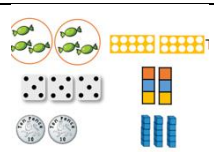
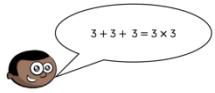
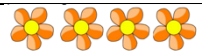
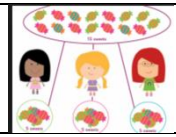
Number-Addition and Subtraction

Please read the Power Maths Calculation Policy available on the school website for a more in depth breakdown of strategies.

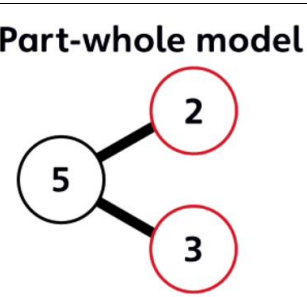
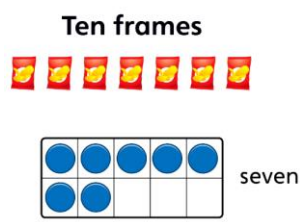
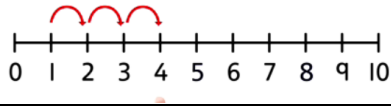
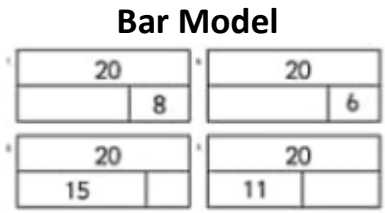
Objects and Resources		Children still need to be able to use practical equipment and pictorial representations.
The 100 Square		Encourage children to recognise the changes to the digits. E.g. 23 + 10 *The tens digit is one more but the ones have stayed the same.*
The Number Line		Can be used to count 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?*

A Place Value Grid		Represent numbers on a place value grid using equipment or numerals.
Part Whole Model	 	Within the part whole model, you can use 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	 	Please see the Calculation Policy on how to approach column method.

Number-Multiplication and Division

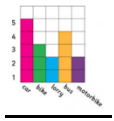
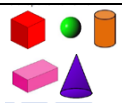
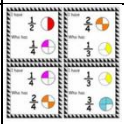
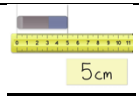
Grouping		Children need to recognise equal groups of 2s, 5s, 10s and 3s.
Repeated Addition		5 + 5 + 5 + 5 + 5 + 5 = 30
Arrays		6 x 3 = 18 3 x 6 = 18 18 ÷ 6 = 3 18 ÷ 3 = 6 **Tip:** Arrays can be divided with straws!
Written Strategies		Being able to re-write addition number sentences as multiplication 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?*

Representations Links:

https://www.ncetm.org.uk/classroom-resources/primm-1-02-introducing-whole-and-parts-part-part-whole/ https://www.youtube.com/watch?v=t0VndEcSOJM&t=66s	
https://nrich.maths.org/2479 https://www.youtube.com/watch?v=GIps5r0Zzb0	
https://www.theschoolrun.com/what-number-line	
https://www.youtube.com/watch?v=hgFeQA96UE8	

Other Key Areas of Maths

Ideas for 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

Useful Links

These websites provide information and a range of games:

https://whiterosemaths.com/resources/primary-resources/ *White Rose Maths*	
https://www.bbc.co.uk/bitesize/subjects/zjxhfg8 *BBC Bitesize* *https://www.bbc.co.uk/bitesize/articles/znfk8xs* *Daily Lessons*	Bitesize
https://www.twinkl.co.uk/search *Twinkl- sign up for some free resources*	twinkl
https://www.topmarks.co.uk/Search.aspx?Subject=16&AgeGroup=2 *Search 'Maths' 'KS1'*	Topmarks
https://home.oxfordowl.co.uk/maths/ *Choose appropriate age*	Oxford OWL
https://nrich.maths.org/primary	NRICH
https://www.ictgames.com/mobilePage/index.html	ict games

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