WELCOME!

Maths information session

29th September 2023

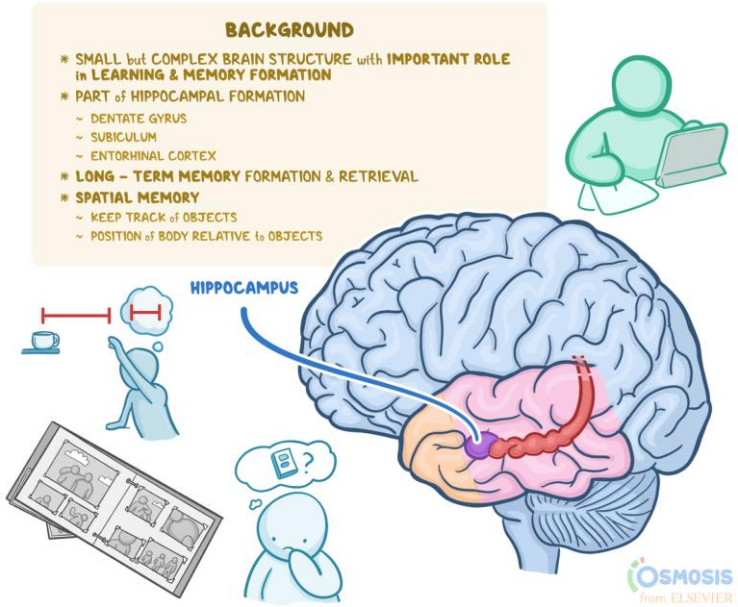
OK – WHO THINKS THEY ARE RUBBISH AT MATHS?

Lots of people think they are rubbish at maths!

- …but you have already done lots of maths before you even got to the session!
- You knew when to get up and how to organise your time, so you and your kids got here.
- If you drove, think of all the maths and mathematical spatial awareness that was involved in driving your car – time, speed, distance, turns etc.
- Having breakfast involved the amounts of food you and the kids were given.
- You use maths ALL the time in every aspect of your life and work.
- You also calculate when you think about looking after your money.
- Everyday maths is as important as the calculations you are probably a little bit wary of!
- What you might have bad memories of is having to remember number facts and methods when you were stressed.
- About 5-8% of children/adults may be affected by the condition DYSCALCULIA – the same percentage as those who might be affected by dyslexia.

The brain

- The hippocampus is involved in long-term memory formation and memory retrieval. It also plays a role in spatial memory, allowing individuals to keep track of where objects are and the position of their body relative to the objects around them.
- The hippocampus can be hard to access if you are stressed or anxious, leading to difficulties remembering key facts or methods when pushed or in test conditions!
- There are things we can do to build up short-term and long-term memory and information retrieval and Big Maths is based on this type of brain research. Building spatial awareness is also key!



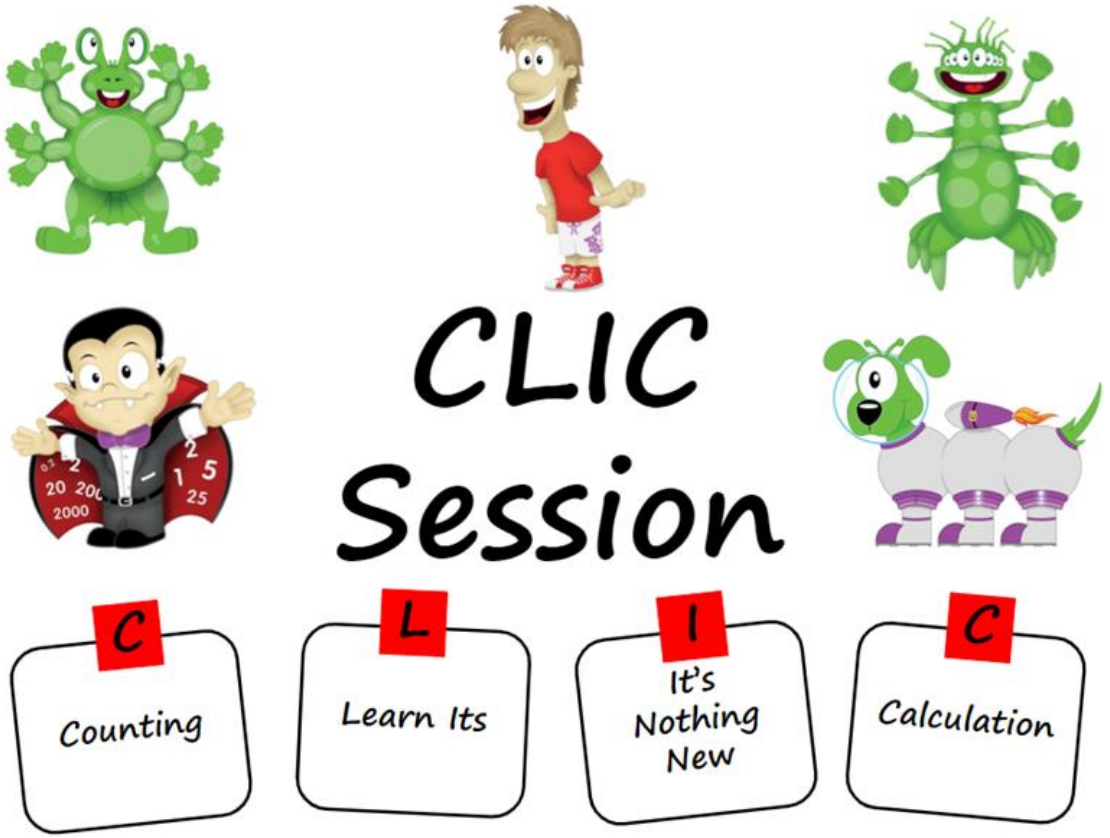
BLOCK PLAY IS A KEY TO BUILDING SPATIAL AWARENESS AND MATHEMATICAL SKILLS IN CHILDHOOD AND SHOULD BE ENCOURAGED FOR ALL OUR CHILDREN! IT HAS BEEN PROVEN TO RAISE ACHIEVEMENT BY AROUND 15%!

We base our learning on this curriculum:

Why?

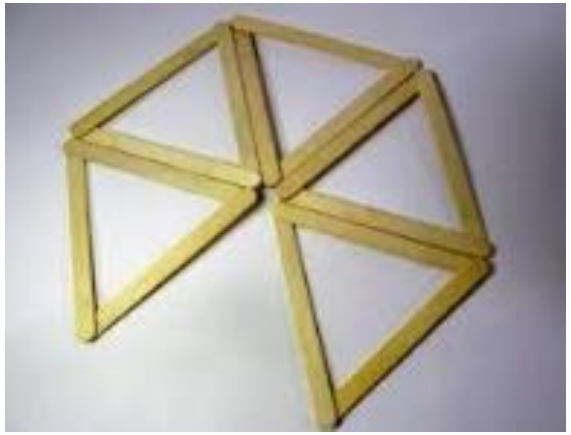
- Big Maths takes the broader curriculum statements from the national curriculum and breaks them down into smaller manageable steps. This results in a sequence of learning that forms the structure of the Big Maths curriculum design.
- In our school, we believe in "spaced learning". The children don't just learn something once in a year. They learn it little by little, one little step at a time, revisiting constantly so that it becomes embedded in the short-term and long-term memory.
- This is the key to Big Maths and it works!

In Years 1 and 2 each maths lesson starts with a 20 minute



In nursery and reception children follow Little Big Maths! They do short CLIC sessions too before they go off to do their activity-based learning.

After a CLIC session in Years 1 and 2, the children may go on to work further on any aspect of number and calculations, or on wider maths such as shape, space and measures.



On our website you will find termly learning objectives for each year group:

Year 1

Termly Learning Objectives

Year 1 Term 1

Basic Skills

Progress Drive	Step	Statement	✓
Saying Numbers	3	I can count from 60 to 69	
	4	I can count to 100	
Reading Numbers	3	I can read 2d multiples of 10	
	4	I can read 2d numbers	
Mastery of Numbers	1	I can understand numbers to 10	
Counting Multiples	2	I can count is 5s	
Learn Its	4	1+9=10 2+8=10 3+7=10 4+6=10 5+5=10	
Swapping the Units	1	Swap 'the thing' to another object	
Doubling with Pim (without crossing 10)	1	I can double 1d numbers	
INN: Number Bonds to 10	1	I can find the missing piece to 10	
Addition	5	I can add numbers of objects to 10	
Subtraction	5	I can take away numbers of objects to 10	
Multiplication	3	I can set out groups of blocks when I play	
	4	I can find the total amount of blocks	
Division	5	I can share 6, 9, 12 or 15 objects between 3 people	

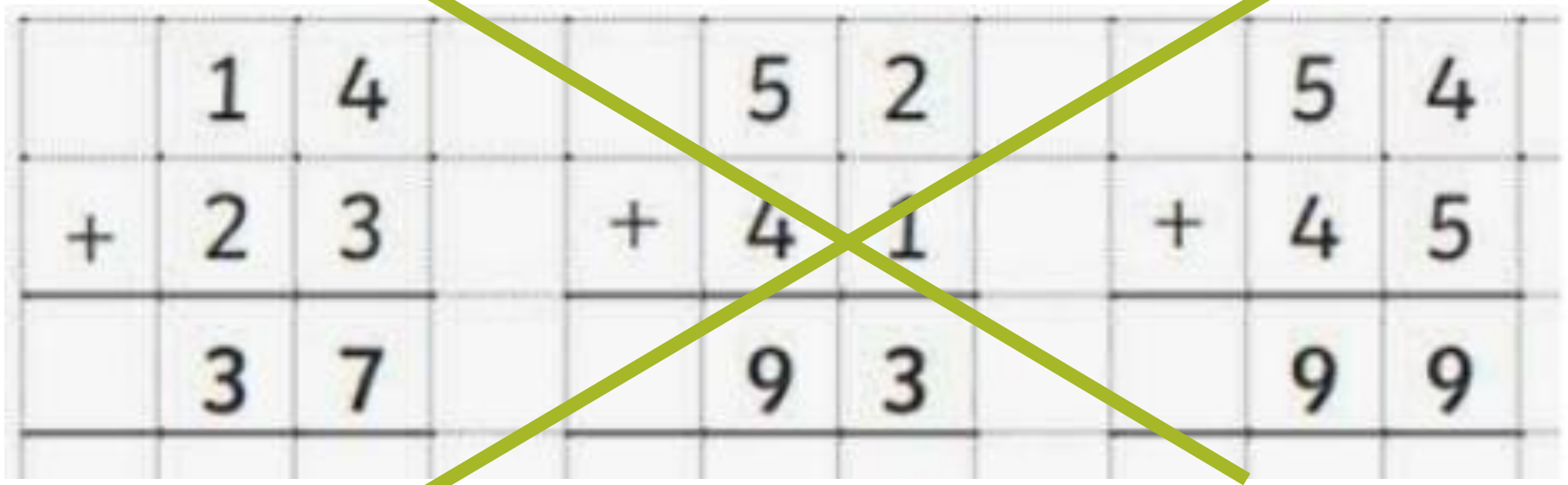
Wider Maths

Progress Drive	Step	Statement	✓
Explore and Draw	7	I can recognise symmetry around me	
2D Shapes	10	I can identify 2D shapes in real life	
3D Shapes	7	I can identify 3D shapes in real life	
Position and Direction	9	I can describe position, directions and movements	
Amounts of Distance	5	I can compare amounts of distance by counting	
Amounts of Mass	4	I can compare 3 different amounts of mass	
Amounts of Money	4	I can play 'shop'! 3 - making simple calculations	
Amounts of Space	4	I can compare 3 different amounts of space	
Amounts of Temperature	4	I understand hotter and colder	
Amounts of Time	10	I can place several events in chronological order	
Amounts of Turn	2	I can make a half turn	
Fractions of a Whole	1	I understand a half	
	2	I can spot a half	
Fractions of a Set	3	I can find half of a set of objects by sharing	
Fractions: Learn Its	1	I know my finger doubles as fractions Learn Its	
Diagrams and Tables	5	I can sort using two lists	
	6	I can sort using a circle	
Bar Charts	1	I can build counting towers	
Pattern Spotting	6	I can spot, copy and create different patterns	

Calculations policy

- You will find this on our website.
- Our maths policy and our calculations policy go into some detail about our rationale behind our teaching of maths and of Big Maths.
- The calculations policy itself goes into great detail about how learn its and calculations are taught from nursery through to the end of Year 2.

We DON'T teach column methods at the Infant School!

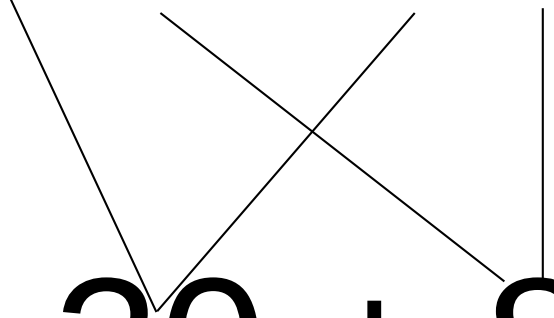


We teach children to understand what each 2-digit number is made of!

5 + 3 =

15 + 3 =

15 + 13 =



20 + 8 =

Homework!

- We very rarely send maths homework!
- We may ask you to work on something that your child is needing more practice with, if it is something you can help with.
- We may ask children to work at home on their learn its.
- So, what CAN you do to help your child?

Block Play!

Ideas for working at home

- BLOCK PLAY HAS BEEN PROVED TO SUPPORT CHILDREN'S SPATIAL AWARENSS AND EARLY MATHS SKILLS, AND CAN IMPROVE OUTCOMES BY 15% OR MORE!
- Lots and lots of counting!
- Counting objects in everyday life. Make sure children count each object one at a time without skipping.
- Counting by rote in 1s, 10s, 5s, 2s then 100s, moving on to 3s in Year 2.
- Using counting and counting on skills in board games, e.g. snakes and ladders. Many children find it difficult knowing which square to start counting from when playing games. This will support them in their use of number tracks and lines in Year 1.
- Other games such as dominoes.
- Subitising small numbers of objects: knowing how many there are of something without counting.
- Recognise numbers in the environment.


100 98 97 96 95 94 93 92 91
81 82 83 90
80 79 78 77 75 74 73 72 71
61 62 64 65 67 69
60 59 58 57 56 55 53 52 51
41 42 44 45 46 48 50
39 38 36 35 33 32 31
21 22 23 25 26 28 29 30
19 18 17 16 15 14 13 11
1 2 3 4 5 6 7 8 9 10

Calculations

- Any game where you have to add numbers to score.
- Everyday life addition and subtraction:
  - How many beans on your plate? I'm going to give you 4 more. How many now?
  - You have 5 sausages on your plate. How many will you have if you eat 2 of them?
- In Year 2 children will start learning times tables (10, 5, 2). This is something they could recite on a journey
- Adding coins!

Money

- Children have to work with money in maths, even though we don't very often use cash in our own lives these days!
- Have some coins around the house for counting.
- Children need to know the difference between the coins available and their values.
- They need to be able to count them in 1s, 2s, 5s, 10s, 20s etc.
- They will start learning to combine coins in Year 1 using counting on techniques and their learn its.
- They will also be working with paper money (photocopied!!!).
- In Year 2 they need to understand the concept of giving change.
- Working with money is brilliant for children's mental maths skills.

Other measures

- Cooking and baking are fantastic opportunities to work on everyday maths. Children need to experience different units of measure in practice. Let them "help" whenever you can.
- DIY – children gain lots of experience if they can watch or join in with the measuring up of resources for making things. Let them see you measuring up for new carpets, tiles and curtains etc.
- TELLING THE TIME. This is a BIG one! At home you will hopefully have both analogue and digital clocks. Having a toy clock or practical time book will allow your child to set a clock at different times. Talking about time and the passing of time is a real bonus for your children.
- When do things happen in your family? Talk about breakfast time, tea, bath, bedtime.
- Children in Year 1 need to be able to read an analogue clock to the hour and half past, and will start learning about digital time.
- Children in Year 2 will learn about quarter past and quarter to the hour and then about the 5 minute intervals.

Shape and space

- Point out different 2D shapes in the environment.
- Talk about the 3D shapes in the environment.
- Make patterns in colours and objects: red lego brick, yellow lego brick, red lego brick, yellow lego brick. Carrot, bean, carrot, bean, carrot, bean.
- Construction toys.
- Art and craft activities.
- Cutting out shapes.