

Big Maths Information for Parents

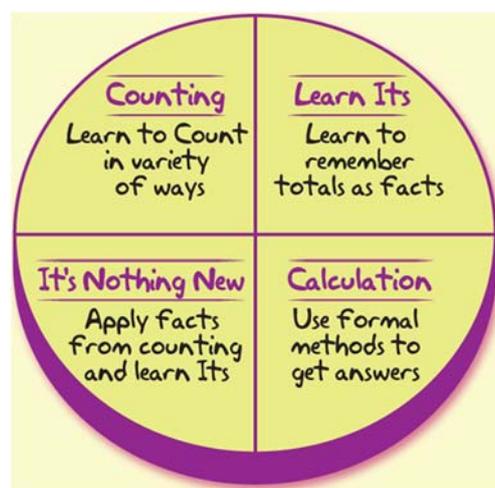
Big Maths is a teaching programme we are beginning to implement at Emersons Green Primary School to help children to become numerate. Problem solving and word problems cannot be confidently attempted until children can manipulate and understand how numbers work.

Big Maths lessons are fast, fun and furious. Children work on whiteboards and 'flash' answers to their teachers - the pace of the lesson is fast. We need to pass on the expectation to work at a quick pace and have maths facts instantly available, rather than slower methods, such as counting on fingers.

The children are introduced to child-friendly terms such as 'Switchers' and 'Learn Its', rather than 'commutative law' and 'number bonds' to help them manipulate numbers and make them more confident and more successful.

CLIC SESSIONS

Big Maths is taught through daily 'CLIC'. This stands for 'Counting', 'Learn Its', 'It's Nothing New' and 'Calculation'. Maths lessons contain each of these elements. These are described on the following pages.



1. COUNTING

Children will count forwards, backwards, in steps of 3, 6 or 25, read and write numbers and in multiples. When practising counting at home with your children, make sure you go backwards and forwards. Don't always start at 0 - find another starting number to count from.

2. 'LEARN ITS'

Learn Its are addition facts and times tables facts. There are 72 Learn Its in total - 36 addition Learn Its and 36 multiplication Learn Its. These are facts that children need to learn off by heart, so when they are asked, for example, 'What is $6+4$?' they are able to give the answer as quickly as they would be able to tell you their name. Also, we teach 'Switchers' - an example is that as soon as children know $3 \times 5 = 15$ they also know $5 \times 3 = 15$

'Learn Its' by Year Group :

- **Reception** - Doubles of 1, 2, 3, 4, 5, and $2+1 = 3$ and $2+3 = 5$
- **Year 1** - Doubles of 6, 7, 8, 9, and numbers which make 10 ($2+8$, $7+3$)
- **Year 2** - Remainder of 1 digit + 1 digit facts (eg $9+7=16$)
- **Year 3** - focus on $\times 3$, $\times 4$, $\times 9$ tables facts
- **Year 4** - the six remaining facts (6×6 , 6×7 , 6×8 , 7×7 , 7×8 , 8×8 ,) and 36 Addition Learn Its
- **Year 5 and 6** - all 72 Learn Its. Your child's teacher will select the Learn Its for your child to work on and rather than race ahead. Please work at home to make sure they really do know their Learn Its and their Switchers with INSTANT RECALL (no fingers)

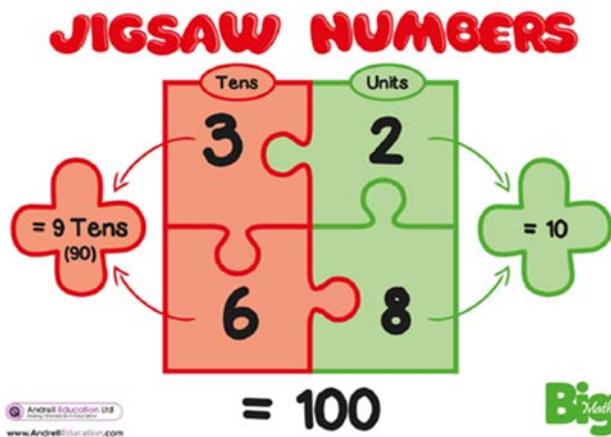
Since we are just starting Big Maths, some children may need to revisit the previous years' Learn Its.

3. IT'S NOTHING NEW

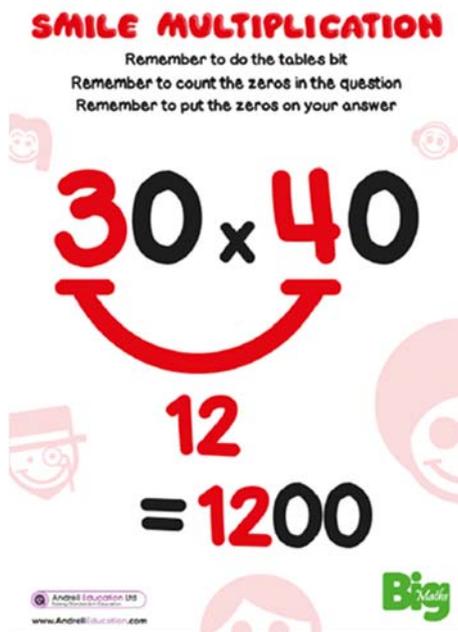
This is the most important aspect of CLIC - the way children become successful and properly numerate. We teach children, for example, that 5 'things' and 3 'things' are always 8 'things'. If we then change the 'thing' to something else, for example tens, then 5 'tens' and 3 'tens' are 8 'tens' - this means children instantly know $50+30=80$. Children will count in bananas, aliens, cats etc. before using abstract numbers. This approach helps children to learn to count using measures such as grams, millilitres or centimetres. A character called 'Pim the Alien' is used to reinforce this concept.

The idea behind this is that the learning is nothing new - children realise that learning some simple number facts can lead to them knowing much harder mathematical facts. For example, if a child knows double 4, they can use that to find double 40, double 400 or double 4000, with confidence.

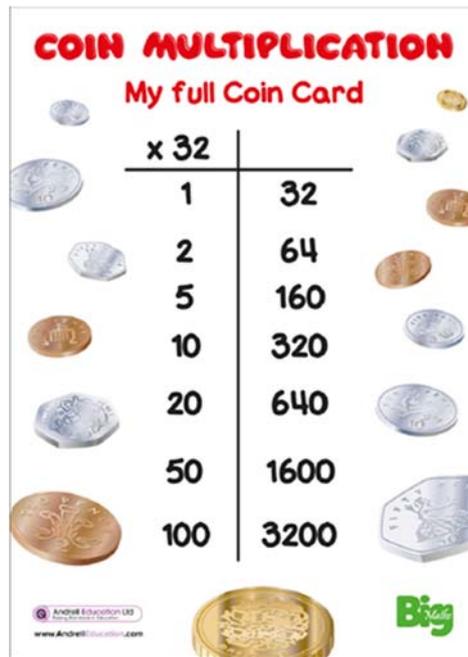
Strange phrases such as 'Jigsaw Numbers', 'Smile Multiplication' and 'Where's Mully?' are all part of this section of Big Maths.



Jigsaw numbers are a way of adding pairs of numbers to equal 100 - what we have traditionally called 'place value', as in the diagram above.



Smile Multiplication is used for multiplying multiples of 10, linking numbers with a 'smile' as in the diagram above. The above illustration demonstrates that 30×40 can be calculated by knowing 3×4 .



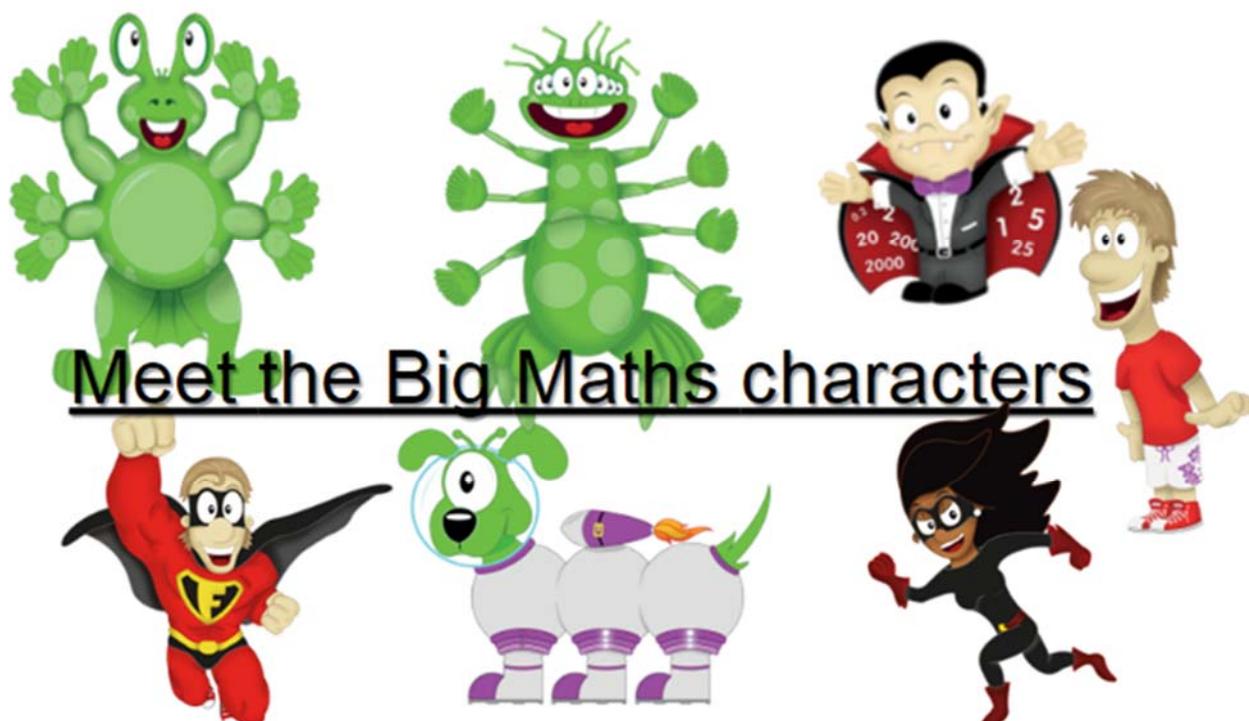
Coin Multiplication is used to help children to multiply and divide larger numbers, by memorising

4. CALCULATION

This aspect of CLIC is when the teacher will work on developing the class progress and understanding of addition, subtraction, multiplication and division. Big Maths clearly maps out which steps children should do in a clear order, to help them develop their arithmetic skills.

ASSESSING BIG MATHS - BIG MATHS BEAT THAT

'Big Maths Beat That' are weekly timed tests of your child's Learn Its (number facts such as addition facts or times tables) and other key concepts explored throughout CLIC. The aim is to improve their score by one each time. You can help your child to improve their scores, by asking them to give you instant responses to their Learn Its while at home, the journey to school and throughout the day at the weekend.



Meet the Big Maths characters

How can you help?

- Help your child practice their Learn Its at home - a few minutes a day is all you need.
- Insist that numbers are written the correct way round.
- Come into school and volunteer to play some maths games with children or be a number ninja yourself.
- Encourage a positive attitude towards maths at home and in school.
- Ask your child's teacher or look at the school website for top tips and useful websites to use.