



Maths Mastery



at

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What is Maths Mastery?

- Mastery Maths is an approach to the teaching of maths that allows for a deeper, long term understanding of the subject.
- It has been developed and adapted from the teaching of Maths in Singapore due to the poor position the UK holds in National tables regarding our children's performance in Maths.
- Mastery maths is an approach that believes all children can achieve and there are no children that 'can't do maths'



What is Maths Mastery?

We are still teaching the National Curriculum, we are just teaching it in a way that;

- allows all children to cement their learning before moving on
- allows children to remember the skills they have learnt, as they have had more time to imbed them throughout their lessons
- allows all children to reach their potential and ensures that there is no cap on this



Maths is split into two categories; Number and Space, Shape & Measure

- Number
 - Addition
 - Subtraction
 - Multiplication
 - Division
 - Fractions
- Space, Shape & Measure
 - 2D and 3D shape
 - Time
 - Money
 - Measurement- length, height, weight, capacity and volume.

Children will cover all of these in both Year 1 and Year 2 but at a level that is suitable for their ages.



What would I see....

There are several things you would expect to see in a Mastery Maths lesson

- Concrete objects
- Pictorial images
- Ping-Pong
- STEM sentences
- Problem solving questions
- Reasoning questions



Concrete objects



Dienes



Double sided counters



Cubes



Bead strings



Pictorial images

3 + 2 = 5

TH	H	T	O
1000	100 100	10 10 10	1 1
1000 1000 1000	100	10	1 1 1 1



Ping-Pong

Mastery lessons are very well paced, and the teacher leads back and forth interaction between themselves and the pupils. This can be done with questioning, STEM sentences, activities, demonstrations etc. It is constant throughout most lessons, so there is never a long period of time children are sitting in silence having the opportunity to not engage.



STEM sentences

- STEM sentences are sentences used for children to be able to communicate their ideas with clarity and the correct mathematical vocabulary.
- Our children use them to help remember different concepts and mathematical rules.
- The same STEM sentences are used throughout the school to ensure continuity and clarity for the children.
- When subtracting we always start with the biggest number.
- Division is sharing an amount equally by a given number.

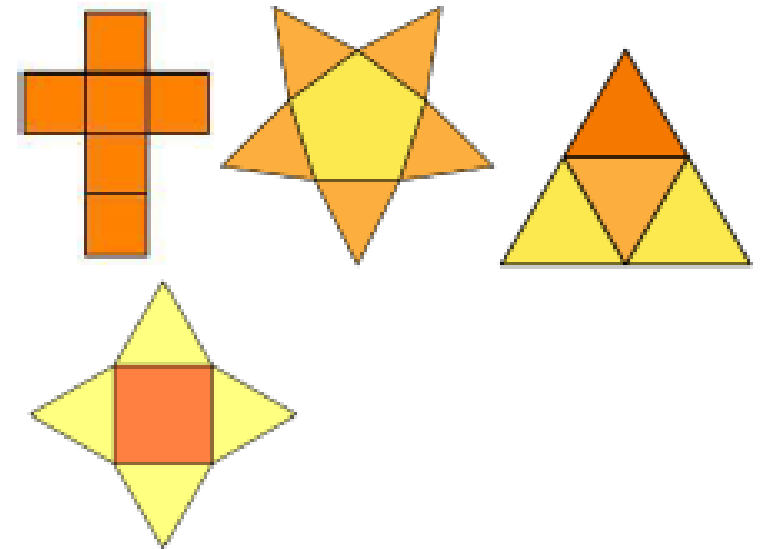


Problem solving

Look at 20 toy cars. Is it possible to find $\frac{1}{2}$ $\frac{1}{3}$
 $\frac{1}{4}$ of them without breaking any of them?

Jamie has 5 silver coins in his hand. How many different ways can he make £1 or more?

Abigail is folding paper to make a 3D shape. Work out the shapes she has made by looking at her folded papers.



Reasoning

Four children want an equal share of this paper signed by a famous singer.



Explain how they can do it.

Katie is trying to build a tower with 3D shapes. When she uses one shape they keep rolling off each other. What shape do you think she is using and why?

Odd one out.
Look at the coins below. Which one is the odd one out and why?



What's going to happen now...

-a selection of addition, subtraction, multiplication and division questions to be shown with different methods.

