

Byron Court  
Primary School



# Mathematics Mastery Workshop

Monday 24<sup>th</sup> April

- To gain an insight into the Maths Mastery approach and how it is taught.
- To give ideas for supporting maths at home – making it fun!

# How and Why did the Mathematics Mastery Approach Develop

- Too many children are falling behind
- Not enough children are excelling
- Teaching has been focussed on procedures over understanding
- Negative attitudes towards maths ability and enjoyment

# The Mathematics Mastery Approach

- Depth before breath – a rigorous and systematic programme that is developed to ensure every child can achieve excellence.
- It provides a deep understanding of the subject through a Pictorial, Concrete and Abstract approach.
- Mastery – when a concept or skill can be applied over time in a multiple of ways and to an unfamiliar setting
- A child's mindset is more important than prior attainment.

# Growth Mindset

- A belief that effort creates success
- A belief that skill and ability can be increased over time
- View mistakes as an opportunity to develop
- Are resilient – and don't give up easily
- Think about *how* they learn not just what

# A Maths Mastery Curriculum

- High expectations for every child
- Few topics, greater depth
- Number sense and place value come first
- A research based curriculum
- The use of objects and pictures before number and letters
- Problem solving is central
- Language and Communication lead to understanding
- Challenge is provided through an increased depth, rather than acceleration of content

What is in between the trees?

What time of day is it?

How many orange fish?

What is beneath the bridge?



Which is greater – the number of trees or frogs?

How many birds in the sky?

How many spiders altogether?

Are there more fish or trees?

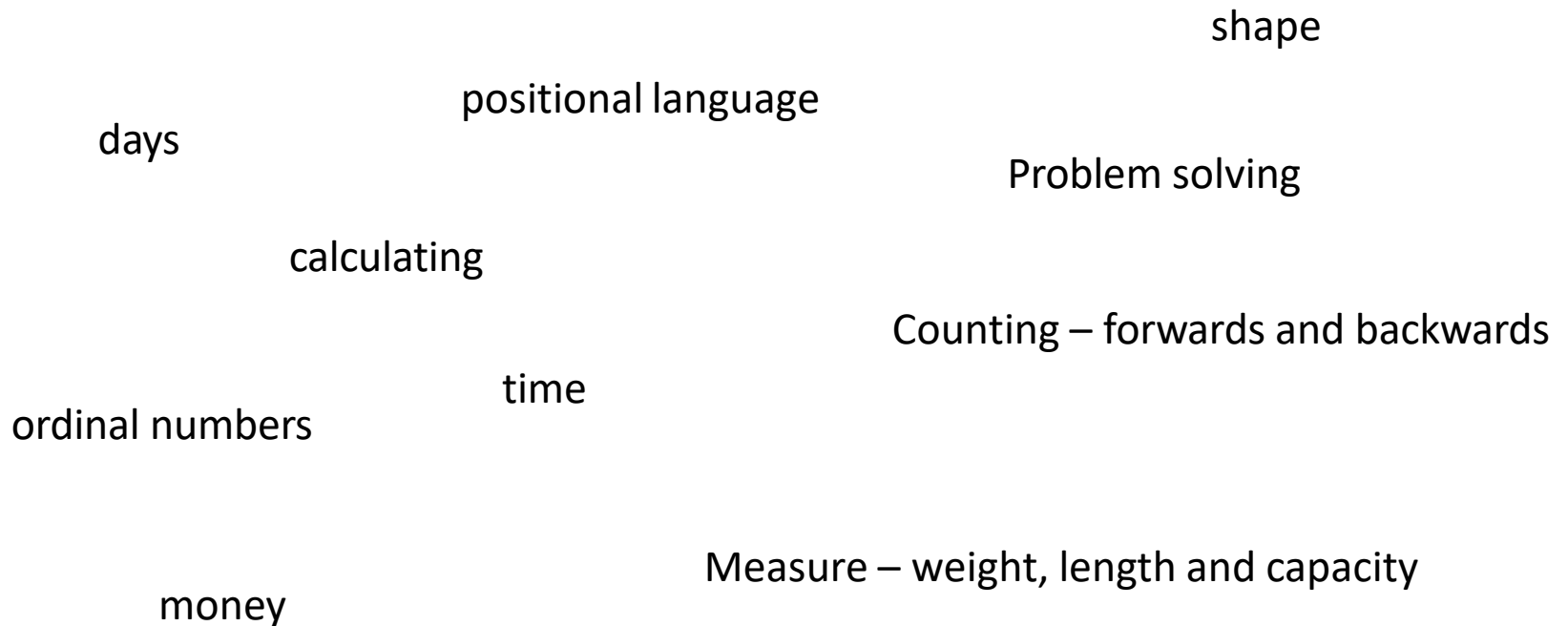
How many short red flowers are there?

What shapes can you see?

What is on top of the house?

# Transitions

- Wherever you are, whatever you are doing, you can be practising maths!





# Partner work

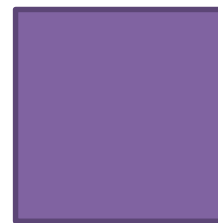
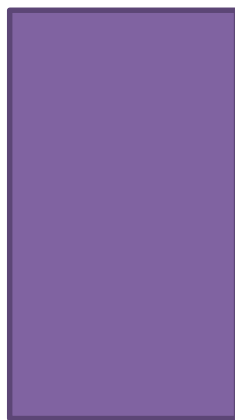
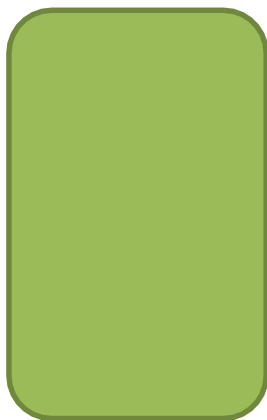
- Children share their ideas and talk through working out
- Children practise new vocabulary in full sentences
- Children check each other's working and make corrections
- Children have a shared experience of maths – all feel successful in their learning

# What did they practise?

- “ 4 is the *whole*, 3 and 1 are the *parts*’
- Self correcting – built a tower of 5 cubes, then corrected to 4 by taking one away
- “ 2 and 2 makes 4”
- Using cubes and fingers to show the same concept
- Turn taking and social skills!

# Reasoning

- Which is the odd one out? *Why?*



# Keep it simple!

Maths is not always about 'big' numbers and times tables – it is about being able to apply concepts to different situations, problem solve, and find different strategies to check working.

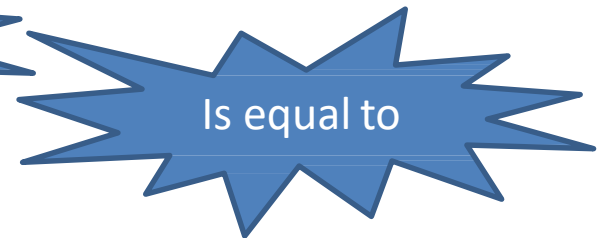
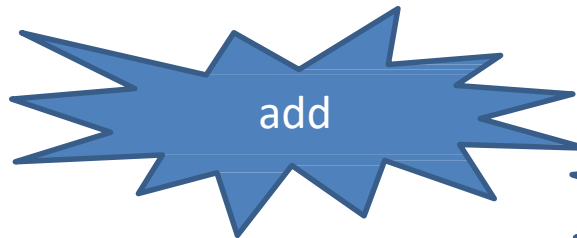
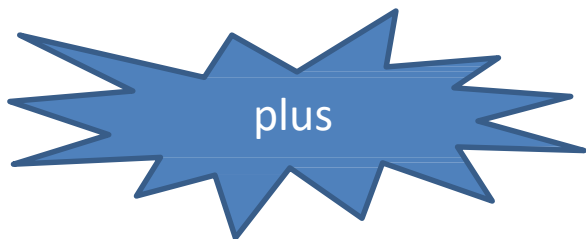
e.g. '12+6=18'

- *How do you know? Can you show me this as a picture? What are the parts of 18? How can you check that is correct? What would 6 + 12 be? Can you say that in a number sentence?*

# Using resources

- Use the resources on the table to show that  $3+2=5$  (a number bond!)
- Tell your partner your number bond in a full sentence 😊
- Can you show it in a different way?

*Use these star words while you are working...*

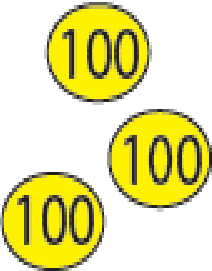

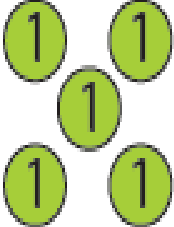
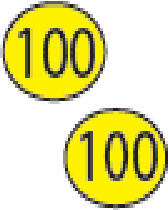
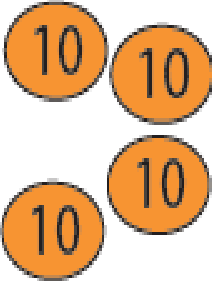
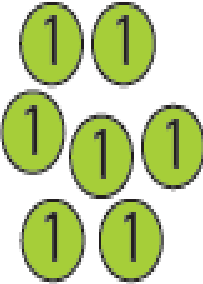


Using place value counters, perform this addition calculation.

Hundreds  
place

Tens  
place

Ones  
place

325
+ 247
<hr/>
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# How to support at home

- Mathematics homework is issued every week; whilst we want you to get involved and support your child, we don't want you doing the homework *for* them.
- Use every opportunity to ask your child questions and to explain their reasoning to you.
- Look for maths around you. Telling the time, discussing the days of the week, talking about money or the coins needed to pay for items, how long things take to cook.
- GROWTH MINDSET – everyone of us can master mathematics given the opportunity.

# In Summary

- Support your child by:
- Encouraging number fluency through playing games that require number facts to be used (including times tables)
- Help your child become fluent at written methods, using the method they are working with at school
- Use every opportunity at home to emphasise and use maths in the real world.



# Any questions?

