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Mathematics Information Evening for Parents

17th October 2019

Warm up while you're waiting 

1.) **There are 12 cubes on your chair. How many different rectangles can you make using all 12? What if you had 13?**

2.) $55 \div 7 + 1 \div 7 = \square$

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What we'll cover:

- Mastery approach
- Number from YR to Y6
- How can you help?
- Having a go!

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How did you feel facing the questions as you walked in?

- Maths is the subject that most people say they were fearful of at school.
- People are often happy to say that they are 'no good' at maths in a way that they might not for reading or writing.
- Maths at school was most likely a lot of calculation and written work.

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Maths in primary schools today

- Last few years have seen a change in approach to teaching maths
- This is known as the 'mastery approach'
- Influenced by (not directly taken from) the approach taken in East and South East Asia

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Mastery Approach

- Aims to make the understanding **deep**, **long-term** and **adaptable**
- Units of work last longer: 2-3 weeks (In China, Y1 children spend most of the year on additive reasoning; Y2 on multiplicative)
- Children move deeper instead of on to new units
- Ensures that all children understand the fundamentals
- Underpinned by the belief that all children are mathematicians and rejects idea that some people 'can't do maths'
- Uses models, drawings, reasoning language, talk and discussion alongside increasingly complex written calculations

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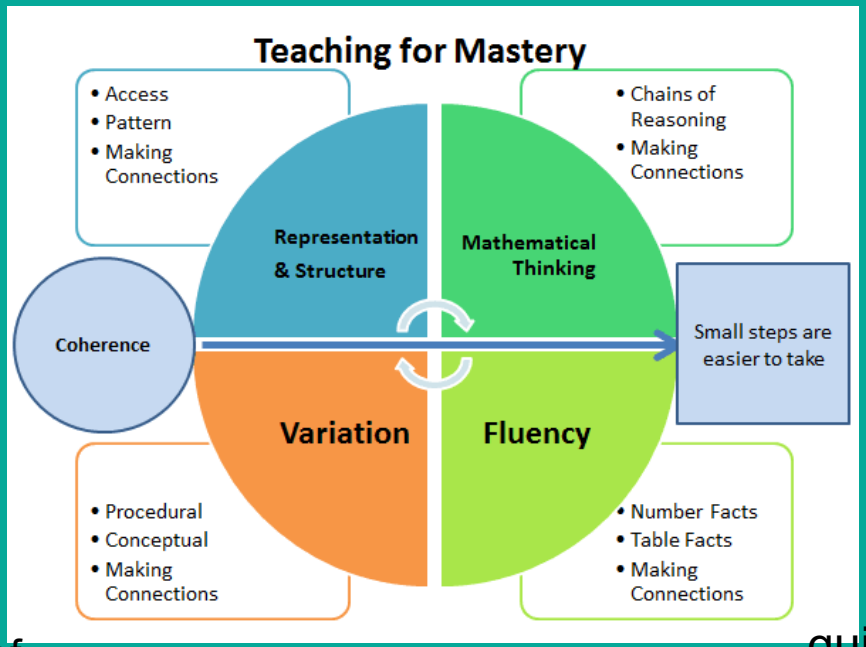
Mastery Approach: Five Big Ideas

models, drawings, objects

small steps

changing a single aspect of a way things are presented



talking and reasoning, e.g. "If I know 7+4=11 then I know ....."

quick recall (to reduce cognitive load)

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Mastery Approach: what does a lesson look like?

- Whole-class interactive teaching
- Early and rapid intervention in addition to main lessons
- Uses models, drawings, reasoning language, talk and discussion alongside increasingly complex written calculations (build / draw / write / say)
- Uses multiple and varied representations of one concept
- Fluency and conceptual understanding developed in tandem
- Children move freely between concrete, pictorial and abstract

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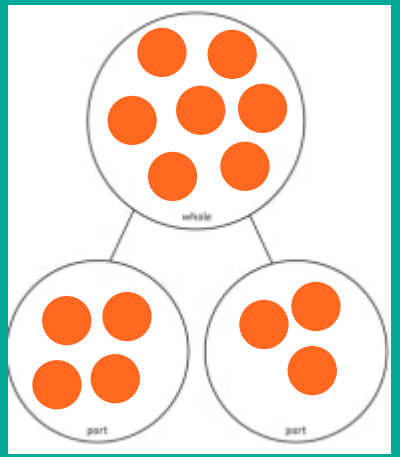
Mastery Approach: examples of multiple representations



- relationship between addition and subtraction
- the 'sevenness' of seven

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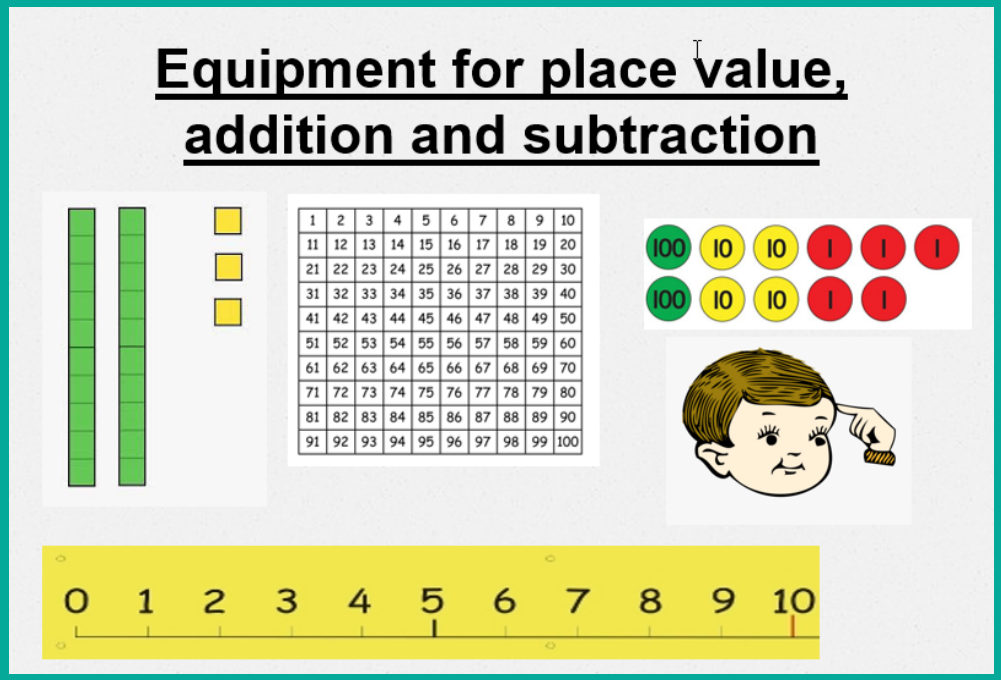
Mastery Approach: examples of multiple representations



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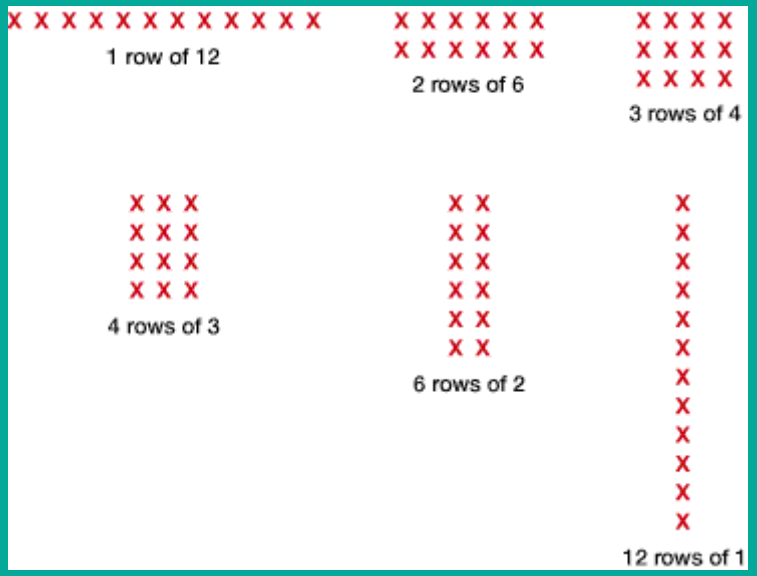
deep **long-term**



Think back to the cubes....

- promotes systematic working
- counting
- counting in groups (x)
- sharing (÷)
- mutliples, factors and products
- "times tables"
- prime numbers (13)

Models are relevant at all stages of the curriculum

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adaptable

$$55 \div 7 + 1 \div 7 = \square$$

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adaptable

$$55 \div 7 + 1 \div 7 = \square$$

If you can see division and fractions as one in the same then:

$$55 \div 7 = \frac{55}{7} \qquad 1 \div 7 = \frac{1}{7}$$

$$\frac{55}{7} + \frac{1}{7} = \frac{56}{7} = 56 \div 7 = 8$$

What if you'd only been taught written methods?!

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Journey in maths from Reception to Year 6 at Foxton

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Journey in maths from Reception to Year 6 at Foxton

Class 1

counting

beginning to add and subtract, place value

Class 2

additive reasoning (+ -), place value

beginning to multiply and divide (count in groups and share)

Class 3

multiplying and dividing

beginning to link to non-whole numbers (FDP)

Class 4

deep understanding and linking more complex FDP

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How can you help at home?

Class 1

- Counting objects carefully to 20 in different contexts
- Recognising numerals to 20
- Begin to manipulate quantities in different way e.g. altogether, halving, and doubling

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How can you help at home?

Class 2

Doubles and halves

Up to 10 + 10 = 20

If 3 + 3 = 6

Then 30 + 30 = 60

Money

Year 1 - Value of different coins

Year 2 – Different ways of making the same amount.

Eg Make 35p in 3 different ways

Times tables

Year 1 – count in 2s, 5s, 10s

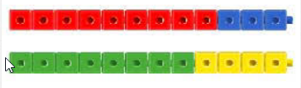
Year 2 – count in 3s and 4s

Number bonds and number families

Year 1 pairs to 10

9 + 1 = 10 10 – 1 = 9

8 + 2 = 10 10 – 2 = 8



Year 2 pairs to 20

19 + 1 = 20 20 – 1 = 9

18 + 2 = 20 20 – 2 = 8

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How can you help at home?

Class 2

Times tables

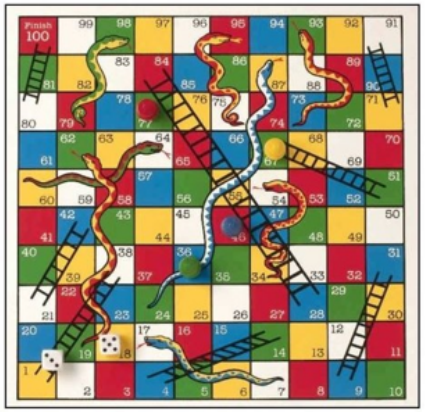
Year 1 – count in 2s, 5s, 10s

Year 2 – count in 3s and 4s

Time

Year 1 – Hour and half past

Year 2 – Quarter past and quarter two.
Extension - 5 minutes



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How can you help at home?

Class 3

- Number bonds within 10 and 20
- Telling the time
- Tables practice

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How can you help at home?

Class 4

practise multiplication and division facts

involve number and calculation in as much as possible:

cooking, measuring, shopping, on journeys (miles & km), telling the time