



Welcome to an Introduction to Mathematics Mastery

Teaching Maths at Campsbourne



Mathematics Mastery MAST



Key Principles

- Success in mathematics for every child
- Close the attainment gap



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Two Beliefs about Intellectual Ability

Innate Ability

Effort-Based Ability





Belief in Innate Ability

ASSUMPTIONS

Ability is fixed

"You either have it or you don't"



Inborn
intelligence is
the main
determinant of

success



Poor Results

Defeatism





Belief in Effort-Based Ability

ASSUMPTIONS

Effort =
Development

BELIEFS

Consistent effort
and effective
strategies are
the main
determinants of
success.



Engagement

Confidence

Results



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There is no 'Maths gene'.

Hollywood hates maths clip:





Curricular principles

- Fewer topics in greater depth
- Mastery for all pupils
- Number sense and place value come first
 Traditional methods taught practically
- Problem solving is central
 Comprehension, calculation and problem solving developed simultaneously.





Key lesson features

Mastering mathematical understanding

Concrete-Pictorial-Abstract approach







Key lesson features

Mastering mathematical thinking

We want children to think like mathematicians. Not just DO maths...

Mastering mathematical language

Sharing essential vocabulary, <u>modelling</u> clear sentence structures, paired language development activities

Mastery for all: Structure of learning

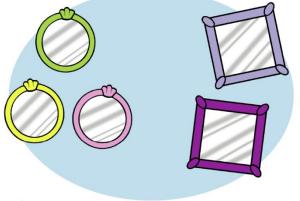
systematic, scaffolded learning which builds skills in steps





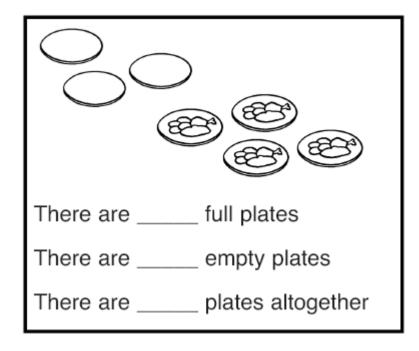


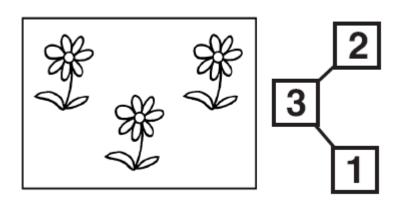


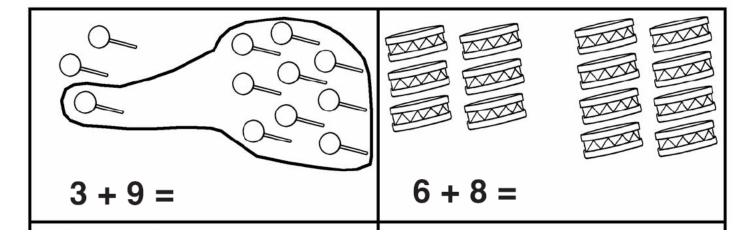












How You Can Help At Home

- Be **positive** Maths role models!
- Counting
 - ~ saying the number names in order
 - ~ counting objects one at a time (moving them, lining them up)
 - ~ counting fixed objects/pictures (lined, random)
 - ~ the last number said is how many are in the set
 - ~ moving the objects around does not change how many there are!