

MATHEMATICS					
What is learning	Learning involves a change in long-term memory. We need to constantly retrieve previously learned information to strengthen the memory.	Key principles	OUR PRINCIPLES OF MASTERY	National Curriculum	<p>Each unit will show developments through the essential areas of the national curriculum; developing fluency, problem solving and reasoning across all concepts.</p> <p>Each day there will be an additional maths meeting to support and develop mathematical fluency.</p> <p>Manipulatives will be used alongside carefully selected representations and worked examples to tackle misconceptions.</p>
Lesson structure	Quadrant Vocabulary I do We do Hinge Point We do Exit Tickte				

Unit overview: Place value – Year 3

National Curriculum requirements

By the end of the year, the children will be able to:

- count from 0 in multiples of 4, 8, 50 and 100
- find 10 or 100 more or less than a given number
- recognise the place value of each digit in a 3-digit number (100s, 10s, 1s)
- compare and order numbers up to 1,000
- identify, represent and estimate numbers using different representations
- read and write numbers up to 1,000 in numerals and in words
- solve number problems and practical problems involving these ideas

Vocabulary

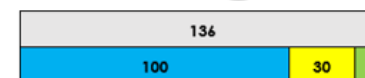
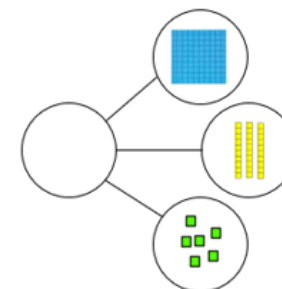
- number names (0 – 1,000)
- digit
- partition / hundreds / tens / ones
- more than / greater / most
- less than / fewer / least
- equal to
- estimate

Manipulatives

- counters
- dienes
- place value counters
- interlocking cubes
- hundred squares
- number lines
- bead strings

Visual representations

Hundreds (100s)	Tens (10s)	Ones (1s)
1	3	6



Teachers present subject matter clearly.	Development of reasoning through: <ul style="list-style-type: none">- Mathematical vocabulary used- Children discuss their learning in complete sentences Instructional approach: <ul style="list-style-type: none">- Explicit modelling using conceptual variation- Questions planned carefully, making links to procedures and concepts- Small learning steps- Practice makes permanent	Responsive teaching	<ul style="list-style-type: none">- No opt out- Right is Right- Progressive questioning to scaffold- Cold calling- Spaced quizzing using quadrants- Hinge point questions and exit tickets- I do/We do/You do- Weekly testing using Times Table Rockstars.- Pre and post quizzes inform next steps before/after a unit's completion. <p>Same day interventions for children to catch up before the next day.</p>
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