

# Primary Teaching for Mastery Self Evaluation

Your name		School & Role		Date	
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This self-evaluation document has been designed to support schools in establishing how they might develop a mastery approach to the teaching and learning of mathematics, building on current strengths. It should be used alongside resources available on the Kent and Medway Maths hub and NCETM websites.

This document works from a definition of mastery taken from the NCETM materials Teaching for Mastery available on <https://www.ncetm.org.uk/resources/46689> (login maybe required)

0: Isn't something we do currently    1: Sometimes happens/starting to think about this    2: Happens fairly often but not embedded    3: Is a central feature of our practice

Feature of Mastery		0	1	2	3
Principles & Beliefs	Staff understand that the essential idea behind 'mastery in mathematics' is that <b>all students</b> need a deep understanding of the mathematics they are learning so that future mathematical learning is built on solid foundations which not need to be retaught				
	Staff have high expectations for all students				
	Staff do not label students such as 'good/no good at maths' and 'high/low ability' (based on previous attainment)				
	Staff believe that the vast majority of students can attain mastery of the key ideas in mathematics				
	Staff believe success is linked to effort and hard work				
	Staff understand mastery of mathematics is not a fixed state but a continuum				
	Staff are committed to analysing how the class might work together on the same key point, whilst at the same time challenging and supporting students to gain depth of understanding and proficiency. Acceleration to higher content is avoided.				
	<i>Any comments on Principles and Beliefs:</i>				

Curriculum Design	There is a planned and phased introduction to mastery				
	Professional development is provided to ensure teachers are supported in their subject and pedagogical knowledge				
	Timetabling allows for teaching of mastery and supported opportunities for practice and immediate interventions when needed				
	Techers have access to resources to support planning and teaching				
	TAs are clear about their responsibilities during different phases of a mastery lesson				
	Parents and governors are informed				
	A detailed curriculum is mapped out to ensure that the vast majority of students master the mathematics relevant to their year group and to support transition, including between schools				
	A detailed curriculum is mapped out across each term, ensuring longer time is prioritised for key topics, with clear progression				
	The aims of the National Curriculum are promoted: fluency, conceptual understanding, reasoning and problem solving				
	There is focus on development of depth and sufficient practice to embed learning				
	<i>Any comments on Curriculum Design:</i>				

Lesson Design & Resources	Carefully crafted lesson design provides a step-by-step, conceptual journey through the mathematics, engaging students in reasoning and the development of mathematical thinking				
	Problems are in designed using variation theory , for example sequences of questions which demonstrate key ideas and structures, making small changes and asking students to notice what is the same and different as they work through problems eg $84 \div 6$ , $85 \div 6$ , $86 \div 6$ , $87 \div 6$				
	Teachers design tasks incorporating conceptual variation, for example looking at the same concept through different representations eg half of the area of a shape and half of a quantity, and also examples and non examples of concepts eg shapes which are triangles, not triangles, and are nearly triangles				
	Teachers design tasks incorporating procedural variation, for example same problem, different solutions				
	<i>Any comments on Lesson Design &amp; Resources:</i>				
Classroom Practice	Manipulatives and pictorial representations are chosen carefully to help build fluency and conceptual knowledge together				
	Possible solutions are shared, analysed and discussed to deepen understanding <i>'The answer is only the beginning'</i>				
	Precise questioning during lessons ensures that students develop fluent technical proficiency and think deeply about the underpinning mathematical concepts				
	Students are encouraged to use precise mathematical language and answer in full sentences				
	<i>Any comments on Classroom Practice:</i>				

Support & Differentiation	<p>Taking a mastery approach, differentiation occurs in the <i>support and intervention</i> provided to different students, <i>not in the topics taught</i>, particularly at earlier stages. There is no differentiation in content taught, but the questioning and scaffolding individual students receive in class as they work through problems will differ</p> <p>Students are challenged through more demanding problems which deepen their knowledge of the same content rather than being moved onto content from future year groups.</p> <p><i>'Differentiation by Depth'</i></p>				
	<p>Student's next steps, gaps in learning and misconceptions are identified through immediate formative assessment and addressed with rapid intervention. There are very few "closing the gap" strategies, because there are very few gaps to close</p>				
	<p><i>Any comments on Support and Differentiation:</i></p>				
Assessment	<p>Assessment values depth of learning, knowing 'why' as well as knowing 'that' and knowing 'how'</p>				
	<p>Assessment includes student's fluency which comes from deep knowledge and practice. Assessment includes but does not solely focus on the need to memorise key facts and procedures and answer test questions accurately and quickly</p>				
	<p>Assessment includes student's reasoning</p>				
	<p>Assessment values applying mathematics to new and unfamiliar problems</p>				
	<p><i>Any comments on Assessment:</i></p>				