The Essence of Mathematics Teaching for Mastery

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Consider how well developed each of the principles and practices are in your classroom setting. Mark these on the 0 to 1 scale (0 being not part of classroom practice at all, 1 being fully embedded in everyday practice)

Underpinning Principles	
Mathematics teaching for mastery assumes everyone can learn and enjoy mathematics	0 ——— 1
Mathematical learning behaviours are developed such that pupils focus and engage fully as learners who reason and seek to make connections	0 ——— 1
Teachers continually develop their specialist knowledge for teaching mathematics, working collaboratively to refine and improve their teaching	0 ——— 1
Curriculum design ensures a coherent and detailed sequence of essential content to support sustained progression over time	0 ——— 1
Lesson Design	
Lesson design links to prior learning to ensure all can access the new learning and identifies carefully sequenced steps in progression to build secure understanding.	0 ——— 1
Examples, representations and models are carefully selected to expose the structure of mathematical concepts and emphasise connections, enabling pupils to develop a deep knowledge of mathematics.	0 ——— 1
Procedural fluency and conceptual understanding are developed in tandem because each supports the development of the other.	0 ——— 1
It is recognised that practice is a vital part of learning, but the practice must be designed to both reinforce pupils' procedural fluency and develop their conceptual understanding.	0 ——— 1

In the Classroom	
Pupils are taught through whole-class interactive teaching, enabling all to master the concepts necessary for the next part of the curriculum sequence.	0 — 1
In a typical lesson, the teacher leads back and forth interaction, including questioning, short tasks, explanation, demonstration, and discussion, enabling pupils to think, reason and apply their knowledge to solve problems.	0 — 1
Use of precise mathematical language enables all pupils to communicate their reasoning and thinking effectively.	0 — 1
If a pupil fails to grasp a concept or procedure, this is identified quickly, and gaps in understanding are addressed systematically to prevent them falling behind.	0 — 1
Significant time is spent developing deep understanding of the key ideas that are needed to underpin future learning.	0 — 1
Key number facts are learnt to automaticity, and other key mathematical facts are learned deeply and practised regularly, to avoid cognitive overload in working memory and enable pupils to focus on new learning.	0 — 1