

Improving Teaching and Learning in Mathematics

Layer 1	Layer 2	Layer 3	Layer 4
<p>Planning a unit of work in mathematics Planning an effective teaching sequence based on the cycle of assess, teach, practise, apply, review (includes differentiation, pitch and expectation)</p>	<p>Planning: Using Process Success Criteria to support understanding in mathematics Teaching sequence revisited with focus on scaffolding learning</p>	<p>Planning for using and applying skills in mathematics Teaching sequence revisited with focus on application of key skills at age-related level</p>	<p>Planning for personalisation including individuals and groups (e.g. SEN, girls, more able children, EAL, GRT, children achieving level 2C at the end of KS1)</p>
<p>Subject knowledge in mathematics: Progression and pedagogy Focus on progression of key knowledge and pedagogical approaches in:</p> <ul style="list-style-type: none"> - Place value and number sense - counting - mental calculations - written calculations - using and applying mathematics - shape - measures - handling data 			
<p>Assessment Assessment for learning including:</p> <ul style="list-style-type: none"> - Objectives and success criteria - An introduction to feedback - Using assessment to inform planning 	<p>Assessment</p> <ul style="list-style-type: none"> - Supporting teacher assessment in MA2, MA3 and MA4 - Developing effective questioning - Feedback and next step marking 	<p>Assessment</p> <ul style="list-style-type: none"> - Moderation of mathematics in MA2, MA3 and MA4 - Supporting teacher assessment in MA1 - Self and peer assessment - Setting effective targets for mathematics 	<p>Assessment Moderation across all attainment targets</p>
<p>Speaking and Listening Strategies to develop speaking and listening skills</p>	<p>Speaking and Listening</p> <ul style="list-style-type: none"> - Developing children's use of mathematical vocabulary - Talking Maths (A support programme for developing mathematical language) 	<p>Speaking and Listening Using Talking Maths as an intervention programme</p>	<p>Speaking and Listening Talking about mathematical thinking and refining explanations</p>
<p>EAL (English as an Additional Language) Introduction to EAL pedagogy/strategies and how these link to learning in mathematics</p>	<p>EAL Focusing on the acquisition of key vocabulary and addressing common difficulties</p>		
	<p>Girls and Mathematics An overview of strategies and approaches which engage and motivate girls and build their confidence</p>	<p>Girls and Mathematics</p> <ul style="list-style-type: none"> - Exploring practical ideas to engage and motivate girls in mathematics - Focus on EY, KS1, KS2, Whole school 	
<p>Subject Leader's Role</p> <ul style="list-style-type: none"> - Introduction to subject leader role - Writing a policy document for mathematics 	<p>Subject Leader's Role</p> <ul style="list-style-type: none"> - Carry out audit of mathematics across school - Writing an action plan 	<p>Subject Leader's Role</p> <ul style="list-style-type: none"> - Monitoring and evaluation - Measuring impact 	<p>Subject Leader's Role Develop classroom based CPD through Lesson study</p>

Additional Areas of Support

Supporting newly qualified teachers in mathematics	Effective starter sessions in mathematics	Using ICT to enhance the learning and teaching of mathematics	Challenging all children in mathematics
Using practical equipment , models and images to support learning in mathematics	Integrating mathematics across the curriculum	Developing a mathematical learning environment	Supporting teaching assistants
Identifying and implementing intervention approaches	Involving parents in supporting their children's learning in mathematics (may include written calculations)	Mathematics in the foundation stage	Guided group work in mathematics
Closing the attainment and progress gap in mathematics	Transition	Securing level 2 at the end of Key Stage 1	Securing progress across key stage 2 for those achieving level 2c at key stage 1