

# Transform

# a t h s

This self-evaluation school improvement tool is designed to support schools interested in improving the achievement and enjoyment of mathematics. Schools can identify current areas of strength and next steps to transform mathematics in their school.

The features included in the self evaluation sections build on resources produced by the GLOWMaths Hub and feedback from other schools in the UK already transforming mathematics based on the four key strands: Systems and Beliefs, Teaching for Mastery, Arithmetic and Reasoning.

**Note:** The resource has not been designed to be used in isolation, e.g. it is a useful school improvement tool to summarise and follow up INSET sessions and/or staff discussions based on articles, guidance and action research

		0: Currently not a feature of our practice 2: Happens fairly often but not embedded	1: Sometimes happens 3: Is a central feature of our practice	0	1	2	3
<b>Systems and Beliefs</b>	<i>TeachUp,KeepUp:</i> The 'Mathematics Timetable' prioritises additional curriculum time beyond the mathematics lesson to support practice, consolidation and/or immediate same day/week intervention.						
	The vision for mathematics in the school embraces the aims of the National Curriculum and promotes a 'can do' attitude						
	The Mathematics Calendar/Long Term Plan is at least 35 weeks with a detailed curriculum mapped out across all stages to ensure pupils acquire and demonstrate a sufficient grasp of the mathematics relevant to their year group						
	<i>LingerLonger:</i> A Medium Term Plan for Mathematics is mapped out across each term, ensuring longer time is prioritised for key topics						
	<i>AbilityNotFixed:</i> Staff understand classes may contain previously high/mid/low attainers but they do not label pupils such as 'most able/less able', 'good/no good at maths' and can/can't do maths'						
	<i>YesUCan:</i> Staff proactively promote a 'can do' attitude to mathematics for all pupils through a set of 'positive norms' for the mathematics classroom including the use of 'yet', depth of understanding before speed and learning by mistakes are valued.						
	<i>BelieveToAchieve:</i> Staff believe that the vast majority of Y6 pupils can achieve at least KS2 expected standards and there is a clear focused revision plan for Terms (3)/4/5						
	<i>HelicopterNotVelcro:</i> TAs are clear about their responsibilities and impact during different phases of mathematics sessions						
	<i>Comments/Actions:</i>						
<b>Teaching for Mastery</b>	<i>SecureAndDeep:</i> Staff understand that the essential idea behind 'teaching for mastery in mathematics' is that <b>ALL</b> pupils can and will achieve in mathematics by providing opportunities for all pupils to develop the depth and rigour they need to make secure and sustained progress over time						
	<i>VariationNotVariety:</i> Tasks and questions are designed using Variation Theory ( <i>what it is, what it isn't, apply understanding to solve new and unfamiliar problems</i> )						
	<i>Intelligent Practice:</i> Examples and tasks focus on developing conceptual understanding, practise the thinking process with increasing creativity and avoid mechanical repetition						
	<i>InchWideMileDeep:</i> Medium term plans identifying small key learning points						
	<i>CPA:</i> Concrete and pictorial representations are chosen carefully to help build procedural and conceptual knowledge together						
	<i>TeachLessLearnMore:</i> All pupils are expected to develop at least a secure understanding of each small key learning point						
	<i>PreventTheGap:</i> Pupils' difficulties and misconceptions are identified through immediate formative assessment and addressed with rapid intervention within the lesson and/or same day/week intervention						
	<i>DifferentiationByDepth:</i> Challenge is provided by going deeper rather than accelerating too early into new mathematical content.						
	<i>Maths Manual:</i> Teachers have access to high quality resources to support lesson planning, including text books						
	<i>Comments/Actions:</i>						

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<b>Arithmetic</b>	<i>InYourHead, WithJottings, WrittenMethod</i> : Pupils are encouraged to calculate accurately, efficiently and flexibly				
	<i>ArithmeticToolkit</i> : Staff are clear about the key arithmetic skills for their year group and the previous year group.				
	<i>PracticeToBeSkilled</i> : Arithmetic skills are practised and assessed on a regular basis				
	Key number facts (bonds and multiplication tables) are learnt and practiced regularly.				
	<i>Comments/Actions:</i>				
<b>Reasoning</b>	<i>TheAnswersOnlyTheBeginning</i> : Mathematical ideas are discussed and reasoned and not passively 'received' by pupils				
	<i>ConvinceMe</i> : Tasks are deliberately designed to encourage pupils to describe, explain, justify, convince and/or prove				
	Pupils have opportunities to reason about misconceptions and teacher initiated mistakes to secure understanding				
	<i>Comments/Actions:</i>				

<b>Next Steps</b>		
Now	Next (when?)	Later (when?)