

Teaching for Mastery

Secondary schools

Teaching for mastery means students gaining a deep and lasting understanding of mathematical procedures and concepts.

The National Centre for Excellence in the Teaching of Mathematics and Maths Hubs offer two different, funded professional development programmes in teaching for mastery. Both involve individual teachers and their departments working over time to embed mastery into maths learning. One involves a highly trained teacher supporting other schools to do the same.

Mastery Specialists

Teachers who want to become experts in mastery and take it beyond their own school can become Mastery Specialists. They are linked to their local Maths Hub.

The three year Secondary Mastery Specialist Programme involves fully funded face-to-face and online training and collaboration. Participants on the programme also work to achieve NCETM PD Lead status, a nationally recognised qualification.

Work Groups

Maths Hub Work Groups, each led by a Mastery Specialist, offer locally-based, collaborative CPD. Two teachers ('Mastery Advocates') from each of a small group of schools or colleges, meet half termly. Together they develop classroom and departmental approaches consistent with teaching for mastery.

The Mastery Specialist leads the process and gives bespoke support to each school or college.

// Implementing teaching for mastery has been a huge success. The biggest difference in our department is the shift in culture of both our teachers and our students. //

Mastery Specialist, London

// It is rewarding to see the lessons students are now experiencing with teachers who are teaching for a deeper understanding. //

Mastery Specialist, South Yorkshire

// To anyone considering joining a Work Group, I could not recommend it enough. It is arguably the best continual professional development you can get. //

KS3 Maths Coordinator, London

// The 'open lessons' provide inspiration by showing the strategies in real-life use. This allows for genuine developmental conversation. //

Head of Maths, Surrey

For more information and to get involved, visit our website or contact your local Maths Hub.

www.ncetm.org.uk/teaching-for-mastery | www.ncetm.org.uk/maths-hubs



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Coordinators of the Maths Hubs Programme

Teaching for Mastery: Your questions answered

The chances are that even if you've heard of teaching for mastery, you will have some questions about it. You may have also heard some of the myths which are out there.

Below we answer the questions that teachers and leaders may have about implementing mastery. We also bust some of the common myths about this approach to teaching maths.

The NCETM? What is it?

What is its role?

The National Centre for Excellence in the Teaching of Mathematics (NCETM) was set up in 2006. We support schools, colleges, teachers and anyone seeking maths-specific CPD. We firmly believe that teaching for mastery works in maths classrooms, and we coordinate plenty of professional development opportunities to support anyone interested in developing this approach in their school and beyond.

Where do Maths Hubs come in?

A national network of Maths Hubs has existed since 2014. There are now 40 hubs, supporting all state-funded schools in England.

They work closely with the NCETM to organise and lead maths-specific professional development opportunities at a local and national level. All the CPD available through the NCETM and Maths Hubs blends national expertise with knowledge of the local landscape.

Local Work Groups run through Maths Hubs are suitable for secondary maths teachers at all stages of their career.

Isn't teaching for mastery just for primary school children?

Definitely not – this is a myth! Although national developments in teaching for mastery began in primary schools, secondaries have been building on this for some time now and an increasing number of schools are embracing it each year. The approach is just as beneficial for secondary school students. The NCETM has lots of guidance and information about how teaching for mastery works in secondary schools.

I've heard that it only works if you get rid of sets and have mixed prior attainment groupings. Is this true?

This is another myth. The teaching for mastery approach is based on the belief that all students can achieve. This belief does not rely on mixed attainment groupings to be successful. Schools are free to make their own decisions concerning setting or mixed attainment grouping.

Has it shown results yet at secondary?

Teaching for mastery, like all effective classroom practice, is not a quick fix. It relies on teaching over time in a way that promotes deep and connected understanding. Many schools who have adopted this approach are already reporting that their students are stronger and more confident mathematicians.

I've heard of mastery but I'm not sure about it.

Why would I get involved if I'm not keen?

Teaching for mastery is not an educational fad or gimmick. The term is simply a label for teaching which supports students learning and doing maths deeply, effectively and efficiently. Already for thousands of teachers, it has been a catalyst for deeper thinking about their teaching.

Surely implementing mastery is going to involve a huge cultural change?

It would be too much on top of everything else we have to do.

Embracing teaching for mastery can involve a cultural shift, but it is one which teachers and schools who have done it so far believe to be completely worthwhile. Teachers in Work Groups aren't alone. They benefit from the support of their local Maths Hub and Mastery Specialists and report that it is definitely worth the investment and the change.

Covid-19 Recovery

Many positive lessons were learnt from online collaboration during Maths Hubs activity in 2020/21. These will be built upon in 2021/22. As the impact of the pandemic hopefully recedes, the result for Maths Hubs' work will be a blend of face-to-face activities and frequent online collaboration.