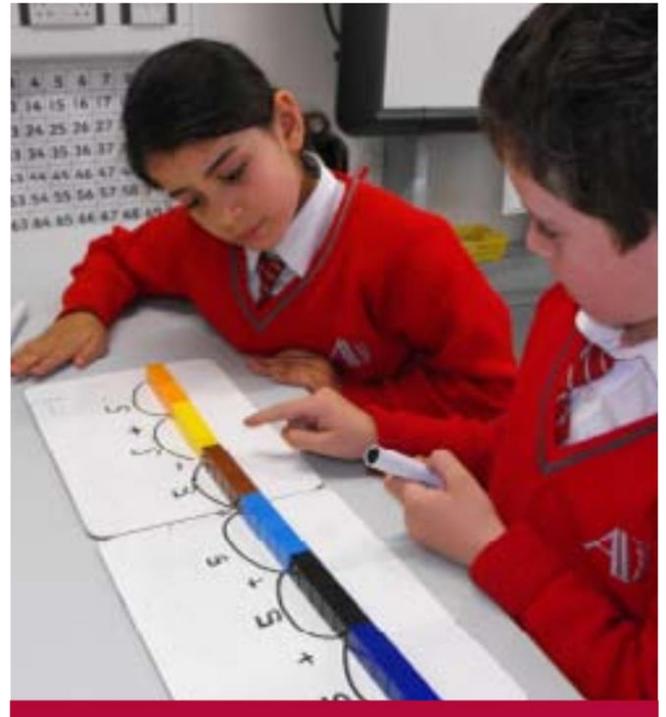


# Mathematics Mastery

## Information sheet

We believe that every child in every school can succeed in mathematics, and that excellent maths-specific professional development for teachers is the way to make this happen. Members of our community share a common curriculum framework aligned to the new national curriculum, and are transforming maths lessons across the country.

Mathematics Mastery is a not-for-profit programme working with over 13,000 pupils and 100 schools across England. It was initially developed by ARK Schools to meet its aspiration to achieve success for every pupil.



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## Why teach mathematics differently?

Adapting to the 2014 national curriculum is a priority for many schools, and earlier reports by ACME, Ofsted and Nuffield had already made an urgent case for change.

The Director of Mathematics Mastery, Dr. Helen Drury, was on the small working group that developed the new mathematics curriculum, and we feel that this is a great opportunity to revisit mathematics in our schools to ensure that we are doing the best for our pupils.

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## Mathematics Mastery seeks to:

1) Provide a curriculum framework that

- Meets the mathematical requirements of learners
- Meets the needs of higher education and employers
- Motivates and encourages young people to continue studying mathematics post-16

2) Improve the quality of mathematics teaching through a rigorous programme of professional development and resource development.

## What's new about the mastery approach?

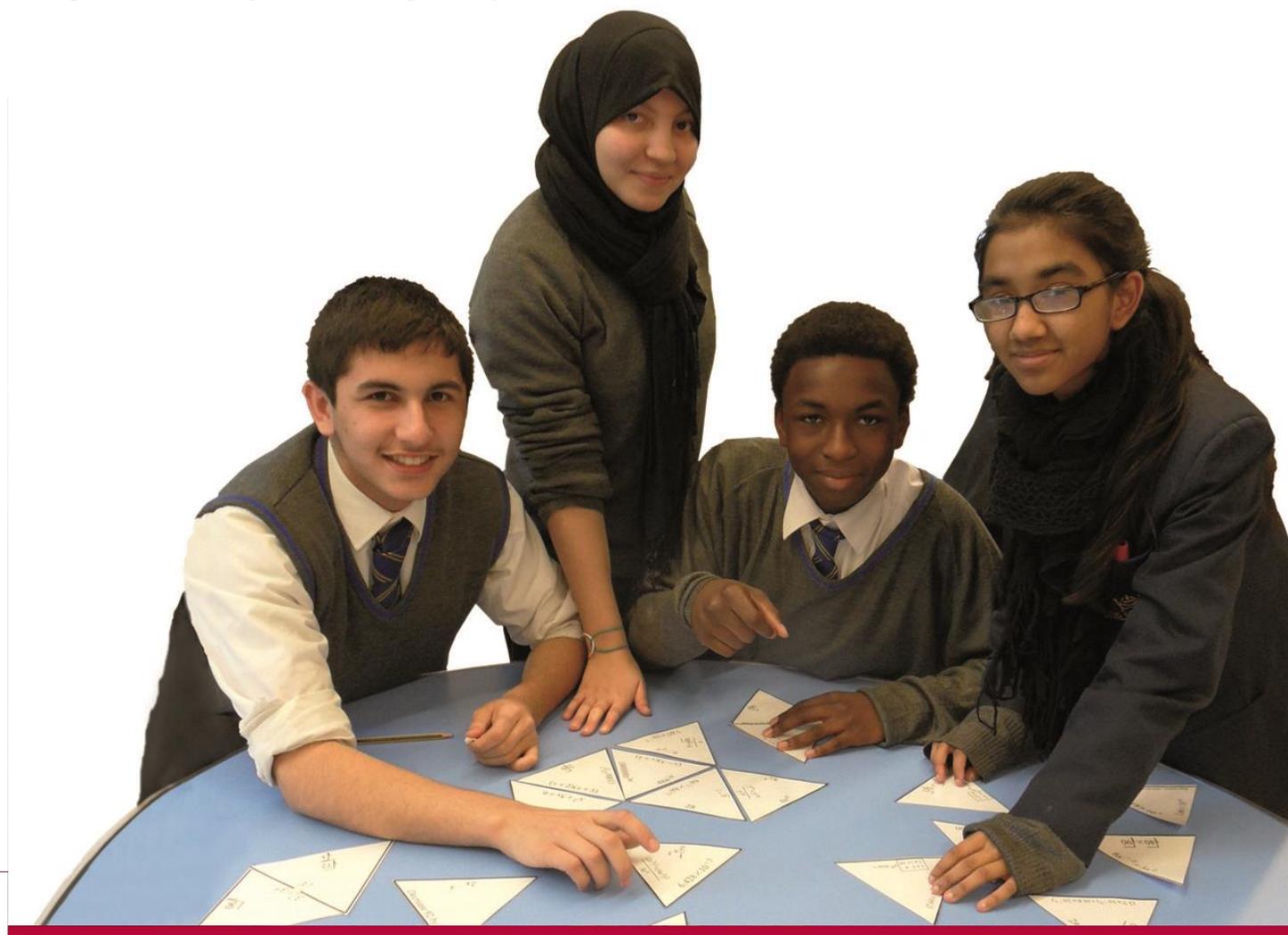
The individual aspects of the Mathematics Mastery programme are the tried and tested successful approaches used by the best teachers, departments and schools. What is special about Mathematics Mastery is that it brings these approaches and techniques together in a rigorous and systematic structure.

The three key elements of a Mathematics Mastery school are:

- A belief that every child can succeed in maths
- A focus on depth of understanding, through class discussion and problem solving
- Use of shared curriculum

We believe that children from all backgrounds can succeed in mathematics. Our focus is on raising standards – working together to show what pupils are capable of and finding effective ways to enable every child to succeed.

The programme emphasises cumulative mastery of the essential knowledge and skills of mathematics. It embeds a deep understanding of maths by using objects, pictures, and diagrams alongside numbers and symbols. This means that pupils understand what they are doing rather than just learning to repeat routines.



## How do we know it works?

Mathematics education research demonstrates that the features of the approach are highly effective at improving pupil understanding of mathematics. The programme draws significantly on the world leading curriculum and pedagogy of Singapore, which has consistently been among the highest performers in the Trends in International Mathematics and Science Study (TIMSS) since 1995.

Ofsted inspectors visited ARK Conway primary school in July 2013. As part of their inspection they observed the Mathematics Mastery approach. ARK Conway's outstanding report states:

***"Pupils' achievement in mathematics is a real strength. The school teaches a curriculum that puts particular emphasis on visual modelling to support pupils in mastering the basic knowledge and skills in mathematics. For example, in a highly successful Year 1 mathematics lesson pupils demonstrated a confident use of practical mathematics apparatus to help them first visualise and then understand place value before successfully subtracting a single digit from a two-digit number. Pupils who found this activity challenging were identified by the teacher and given additional support later in the day. This shows why all pupils make outstanding progress."*** (Ofsted, 2013)

**Feedback** has been excellent since launching with our pioneer schools, all of whom saw improved attainment, with many pupils a year ahead of national expectations. All but one of the 2012 cohort applied to continue the approach into Year 2 and internal monitoring of lessons at the end of last year found that 100% were now rated good or outstanding.

*"I have never enjoyed teaching maths so much. They are fantastic lessons and really enjoyable to teach from."* Teacher

*"The toolkit is excellent, very informative and has so much information. It is a really high standard of CPD."* Maths coordinator



## What is included?

Membership of the Mathematics Mastery community begins with a Moving to Mastery school development programme, which includes:

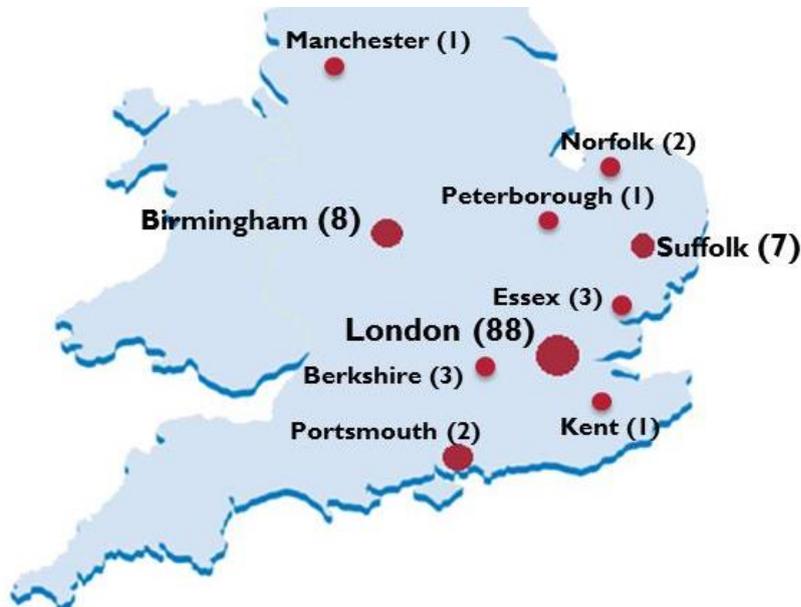
- Interactive face-to-face workshops
- Ongoing coaching and mentoring support, including school visits by experienced trainers
- Access to teaching and learning materials and lesson plans via an exclusive online member toolkit

The innovative online toolkit provides lesson plans, teaching materials, and a timetabling tool, as well as extensive professional development resources, including tips, videos, articles and blogs to help teachers improve their classroom practice.

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## Who do you work with?

The majority of our team and schools are in London, but we do work with schools across the country, as you can see from the map below. We currently work with over 100 schools and Mathematics Mastery lessons are used by around 13,000 pupils each day across the UK.



We work with a range of schools in different points on their journey towards excellence. Transforming a whole school's approach to mathematics is a significant challenge, so we give preference to schools that are committed to the programme and mission.

We are also delighted to be working with the Education Endowment Foundation, the Department for Education and the Mayor of London through the London Schools Excellence Fund, and to be accredited by the National Centre for the Excellence in the Teaching of Mathematics (NCEM) for the quality of our CPD.