



Secondary Programme Guide 2020-21

Mathematics
Mastery

Curriculum,
Mastery +
Development

www.arkcurriculumplus.org.uk



Ark**Curriculum+**

Ark Curriculum+

Grown out of Ark, one of the highest performing Multi Academy Trusts in the UK, our team of well-researched and highly skilled educational designers and trainers guide teachers and their students towards subject mastery.

Our mission is to empower teachers to give *every* young person, regardless of their background, the subject knowledge and skills that will allow them to succeed.

Curriculum

We believe that great curriculum design and delivery leads to improved teaching and learner outcomes, which impacts positively on children's life chances.

Mastery

Evidence shows that students make more progress when they have been equipped to master a subject. They do this by understanding its fundamental concepts in sufficient depth that they can apply subject knowledge in unfamiliar contexts.

Development

Our commitment is to empower and equip schools to provide high-quality subject teaching, through curriculum collaboration and integrated professional development, in order to develop young people's subject mastery.



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The Mathematics Mastery programme has significantly improved my confidence as a maths teacher.

Sally Davidson
Bolingbroke Academy

Our connection with Ark gives us our experience and our specialist expertise, earned while we developed and taught subject curricula across our own network of 37 successful academies in the UK.

Our curriculum programmes have been proven to:

- **have a positive impact on student progress and attainment**
- **deepen students' understanding of key concepts**
- **engage students and increase their enjoyment of lessons**
- **make more impactful use of teacher time**
- **drive change and improve teaching**

Our partner schools are supported every step of the way. We believe in working *with* schools to enable systematic, long-term change to happen from within.

Through improved subject knowledge, pedagogic content knowledge, curriculum and lesson design and formative assessment, we enable teachers to make informed adaptations to ensure all lessons are right for the children in their particular class.

Our programmes are kept fresh with innovation and improvement, informed by evidence derived from world-leading educational research and feedback from our partner schools.



The Mathematics Mastery Secondary programme.

Mathematics Mastery Secondary is already having an impact in hundreds of schools across the UK, improving maths skills and teaching.

Specifically designed for UK classrooms, the programme offers:

A well-sequenced and interlinked KS3 mathematics curriculum



A full suite of classroom planning, delivery, assessment and intervention resources



Integrated training and professional development



The programme is available in three tiers: Mastery, Leadership or Tailored – depending on the requirements of your school.

For more details and to find out our programme pricing, see page 22.



Teachers in our partner schools repeatedly tell us what a difference our programme is making:



Mathematics Mastery has transformed the teaching and learning of maths in our school. Staff have embraced the innovative programme principles and students have responded with enthusiasm. Student attainment has risen and our learners are well prepared for the increased rigour they will face in exams.

Judith Woodfield, Headteacher, Bordesley Green Girls' School



It's very cool to see how students really get into the material. We're in a city school with some very difficult students and now they are engaged and having arguments about maths.

Tom Vinten, Head of Maths, Ark All Saints Academy



We became a Mathematics Mastery partner in 2016, after I took over as Head of Maths. Our Department is now completely different, and our GCSE results have massively improved. Mathematics Mastery has been a big part of our transformation.

Angela Johnson, Head of Maths, Parklands High School

Visit our website to hear more about the positive impact Mathematics Mastery has had in other secondary schools:
www.arkcurriculumplus.org.uk/case-studies



Supporting you through Covid-19.

As teachers ourselves, we understand how extraordinarily difficult this year has been for all schools. We have made some important changes to our Mathematics Mastery programme this year to help support you in the year ahead:

Remote learning

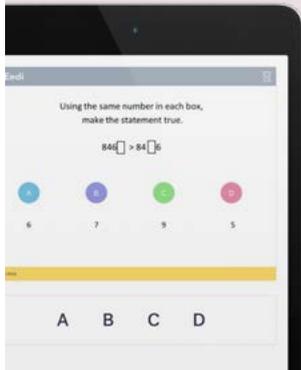


We are contributors to Oak National Academy and our curriculum programme is completely aligned to the Oak curriculum. There's an online video lesson for each Mathematics Mastery lesson, so you can be assured of continuity of learning whether at school or at home.



We've also provided PDFs of the student books for each unit which can be downloaded from our **MyMastery** platform. These can be printed to support learning at home where there may be digital access barriers.

I= Eedi



Identifying and planning recovery for gaps in learning

We partner with **Eedi** to provide diagnostic quizzes for each topic in the Mathematics Mastery curriculum. These are a great way to identify gaps in learning and misconceptions, informing reteaching needs. You can then easily find the relevant lesson resources, as well as bite-sized integrated professional development, to help prepare for reteaching content, in our new **staging posts** on **MyMastery**.

We have also created amended programmes of study to help you understand the learning which has likely been missed due to the pandemic.

Supporting great teaching

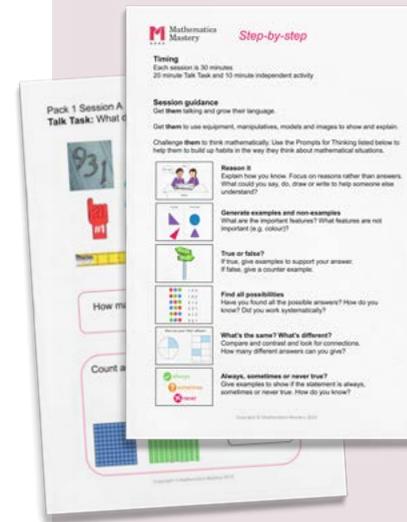


The Education Endowment Foundation have identified that a sustained response will be required to negate the impact of school closures and that '*Great teaching is the most important lever schools have to improve outcomes for their pupils*'.

At Ark Curriculum Plus, we've always believed that the teacher makes the difference and we're committed to supporting ongoing teacher professional development.

Our new **MyMastery** learning platform divides a year's worth of curriculum into easily accessible chunks, called **staging posts**. Each covers approximately 8-12 hours of learning, with all the curriculum planning, classroom resources and integrated professional development you'll need to teach that part of the curriculum.

Focused intervention for significant gaps



Every learner will have been affected by Covid-19 differently.

We believe that subject mastery is achievable for all students and so our programme design has always catered for mixed abilities accessing the same curriculum.

We provide **step-by-step intervention and coaching materials**, for each unit, that can be accessed alongside the core curriculum. These support students not meeting age-related expectations, developing their understanding of core concepts. Each step comes with a guidance document for the facilitator and a talk task and worksheet to be completed by the student.

Our approach.

The Mathematics Mastery approach is driven by teacher consultation and the latest cognitive and educational research.

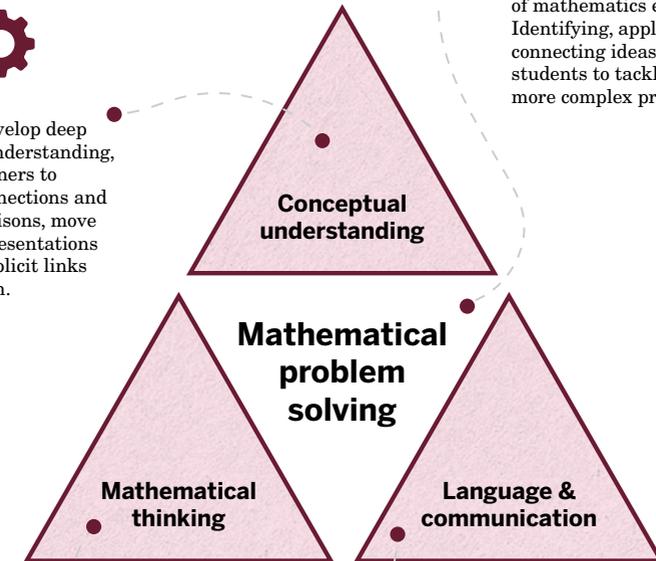
It is underpinned by the dimensions of depth – which together enable students to develop deep understanding of the subject.



The dimensions of depth



Our tasks develop deep conceptual understanding, allowing learners to establish connections and draw comparisons, move between representations and make explicit links between them.



Enabling learners to solve new problems in unfamiliar contexts is the ultimate aim of mathematics education. Identifying, applying and connecting ideas enables students to tackle new and more complex problems.



Our curriculum is designed to encourage learners to think mathematically with tasks that require them to specialise and generalise, work systematically, generate their own examples, classify and make conjectures.



Our curriculum is carefully sequenced in order to develop confident use of the language, signs and symbols of mathematics. Talk tasks are part of every lesson to help with this development.



Proven impact.

Mathematics Mastery Primary has been shown by EEF (the Education Endowment Foundation) to give students on average **one month's additional progress** after one year on the programme.

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On average, pupils in schools adopting Mathematics Mastery made more progress than similar pupils in schools that did not adopt the programme.

EEF Report



This impact can be seen in GCSE results. Students who studied Mathematics Mastery at Key Stage 3 have been shown to have an average progress score of +0.2, equivalent to **three months additional progress** compared to the national average.

In our annual partner school survey:

92% say the programme has **deepened students' understanding** of mathematical concepts.

88% say students **enjoy maths lessons**.

96% say the programme has **improved maths teaching** in their school.

96% say the programme is **easy to use**, and over two thirds say it is helping **reduce teacher workload**.

What do I get when I join the programme?

The Mathematics Mastery Secondary Curriculum

Available for Key Stage 3

The Mathematics Mastery curriculum is cumulative. Each school year begins by focusing on the concepts and skills that underpin later work. The concepts are then applied and connected throughout the school year to consolidate learning.

We believe in the importance of teaching for a deep level of understanding. Our curriculum maps are sequenced so that fewer topics are covered, putting depth before breadth. More time is spent teaching fundamental concepts in earlier years to avoid re-teaching topics. We have sequenced concepts so that established ideas can be linked to new learning, supporting students in understanding the coherent and connected nature of the subject.

Our curriculum is designed to ensure your school fully meets the requirements of the 2014 National Curriculum for England.

Access to the MyMastery learning platform

Our new **MyMastery learning platform** is at the heart of our programme – offering easy ‘anytime, anywhere’ access to the full suite of Mathematics Mastery content.

Curriculum maps and programmes of study

Planning and lesson resources



Bite-sized PD videos and tutorials

Tools to assess for mastery

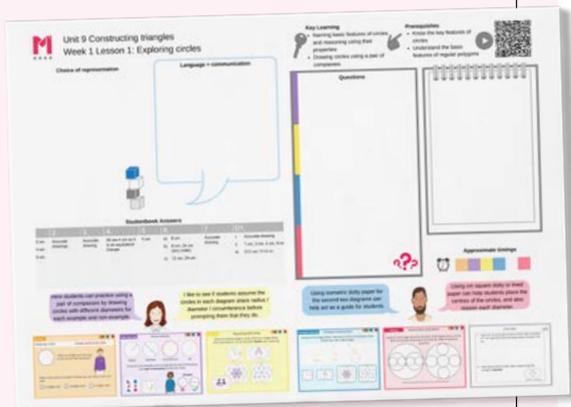


Teaching overviews

The resources on MyMastery are split into easily accessible chunks of learning – these are called **staging posts**.

Each staging post covers approximately 8-12 hours of learning, with all the resources and comprehensive professional development needed to support the teaching of that stage and the units within it.

Teacher guides provide overviews of key content and learning



On-demand teaching overview videos provide guidance and thinking points

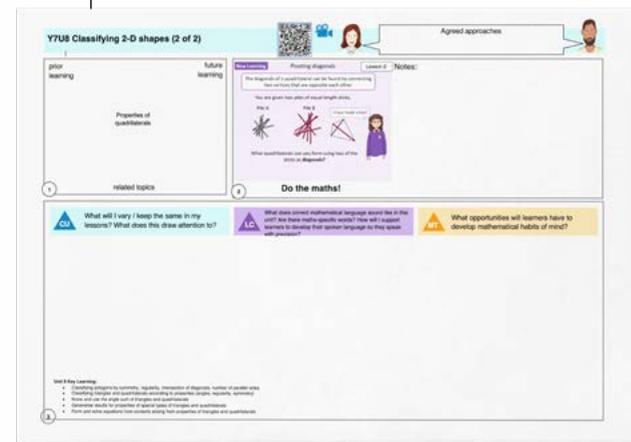


Planning guidance

Easily accessible planning guidance outlines the core 6-part structure of each lesson:

Do Now > New Learning > Talk Task > Develop Learning > Independent Task > Plenary.

Suggestions are given on adapting and differentiating the materials for learners.



Weekly departmental workshops support collaborative planning and ongoing professional development

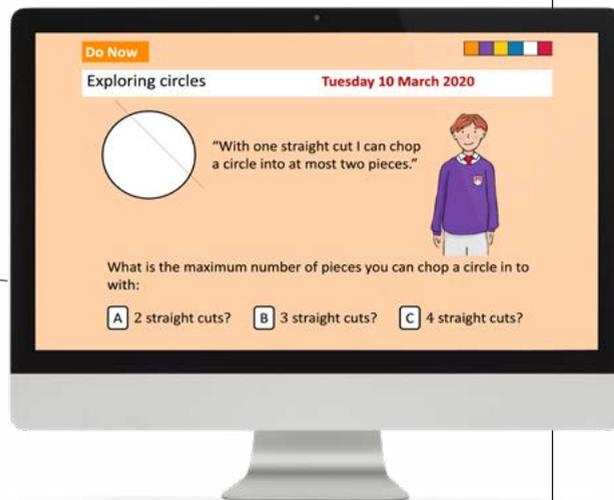


Lesson resources

Our suite of lesson resources exemplifies our classroom principles and supports teachers' ongoing professional development.

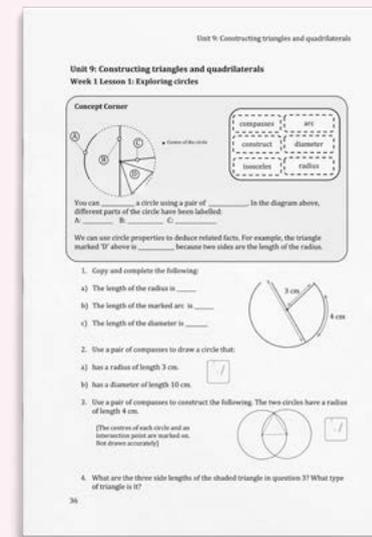
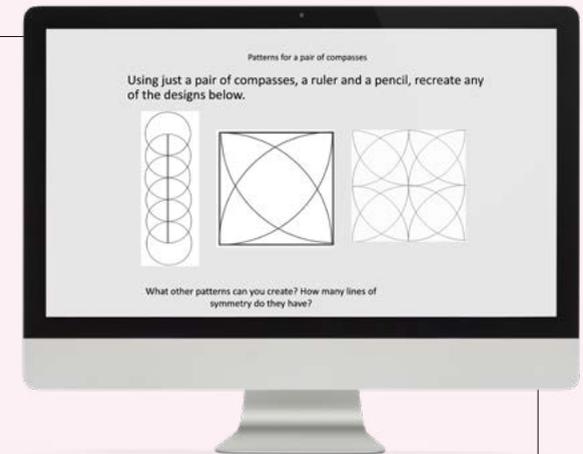
We understand the importance of creative freedom when planning lessons. We also know the needs of teachers and students vary hugely. Our materials therefore address a full spectrum of needs and can be fully customised to suit your class.

PowerPoint slides are provided for each lesson



Fully editable to meet your students' needs

Additional 'Task Bank' tasks provide alternative routes through each concept



Student Books contain written exercises relating to each lesson



Available on MyMastery as printable PDFs

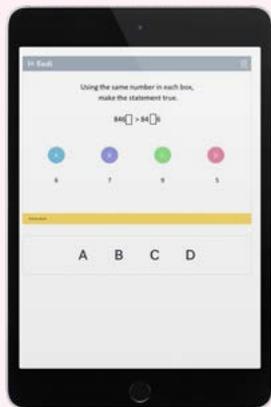


Assessment and intervention tools

The programme integrates formative assessment throughout, including 'exit ticket' questions to be used at the end of each lesson to check understanding and inform planning.



I= Eedi



Diagnostic quizzes

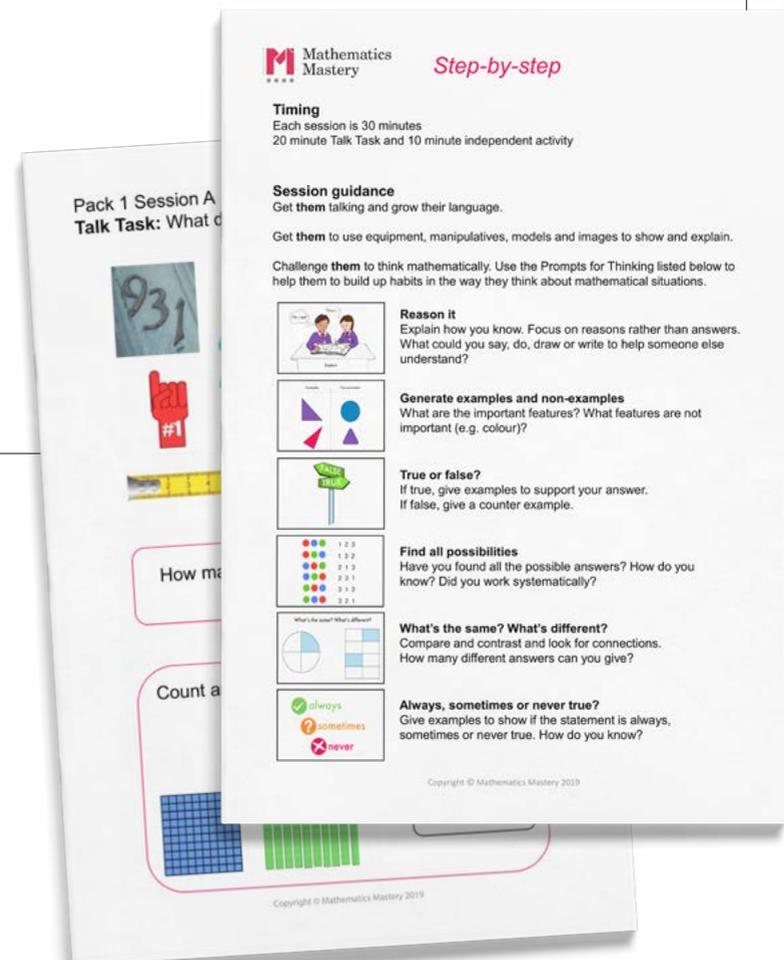
Multiple-choice quizzes, specifically written for the Mathematics Mastery curriculum, are available on Eedi. These support teachers in identifying and addressing misconceptions, with detailed analytics to inform teaching and planning.

Termly assessments

More formal written assessments are also provided, to be used at the end of each term.

Intervention resources

These support students with developing understanding of core concepts by guiding them step-by-step through a logical progression of experiences. Each step comes with a guidance document for the facilitator and a talk task and worksheet to be completed by the student.



Professional development

Mastery

Our Mastery tier includes access to a wide range of professional development modules to support your teachers as they work through the Mathematics Mastery curriculum.

When you join us, all of your teachers are set up for success through our online introductory training, accessed via MyMastery. Then for the continued development of your team, our professional development content is divided into chunks or ‘staging posts’ that allow easy access to the knowledge and training available for each unit.

Available on demand, your teachers can access the training they need when it suits them best – offering flexibility and support at the right points through the year.



Specialist support

Leadership

Our Leadership package includes all of the online professional development and training content from the Mastery tier, PLUS

Live induction training for new teachers

Collaborative training for everyone who is teaching Mathematics Mastery for the first time.

Subject mastery leadership course for your maths lead

Our one-year *Leadership of Mathematics* course will expand your in-house expertise, developing subject leadership skills, pedagogical understanding and classroom practice that can be cascaded across your maths department.

A dedicated School Development Lead and four remote mastery leadership development sessions

Your school will be allocated a Development Lead who will support you with professional development, additional training and action planning throughout the year. These are experienced classroom teachers or senior leaders who have been carefully selected and trained as Mathematics Mastery specialists.

One ticket to our annual conference

Each year we hold an Ark Curriculum Plus Conference which brings together partner schools to think and talk about maths education, hear inspirational speakers and share best practice.

Tailored

If you are looking for a more bespoke service, then our Tailored package allows you the flexibility for expert support, advice and guidance including two school development visits per year and on-site training options for the full teaching team.

To find out more, visit www.arkcurriculumplus.org.uk/join-us

Now available in three flexible tiers.

In line with our mission to make improving life chances accessible to all schools, we have now made our programmes available in three flexible packages: Mastery, Leadership and Tailored – offering different levels of support, depending on the requirements of each school.

This means that those schools who may not wish to take on the full face-to-face training model of the Tailored programme, can still deliver and embed a mastery approach with full curriculum and professional development – all delivered online via our MyMastery learning platform.

Mathematics Mastery Secondary – pricing

We are a non-profit organisation.

The schools that we work with are charged a financial contribution which goes towards delivering and developing the programmes. An outline of our pricing structure is below – but do get in touch to receive a quote for your specific setting.

Mastery	Leadership	Tailored
From £2,000	From £4,500	From £7,000

For full details of the support included in each programme package, visit www.arkcurriculumplus.org.uk/join-us



Choose the package that's right for your school

Our friendly partnerships team will be happy to talk you through the programme and help you decide on the right approach and package for your school.

To book a demo, or sign up for a free trial, contact us on:

E: partnerships@arkcurriculumplus.org.uk
T: 020 3116 6363

Or book a call online at
www.arkcurriculumplus.org.uk/book-a-demo

**Also
available:**



**English
Mastery**

We also offer an English Mastery programme for Key Stage 3.

Visit **www.arkcurriculumplus.org.uk/our-programmes** to find out more.

*Mathematics Mastery is a
curriculum programme from*

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