



Supporting participation in Level 3 maths

Letter to all teachers of maths in Years 10 to 13

We understand there are many pressures on schools right now and a need to focus on well-being but the school/college closure period and cancellation of the summer examination series, in response to the coronavirus pandemic, have severely disrupted students' learning. Those in Years 11 and 13 will generally be progressing to the next phase of their education without undertaking thorough revision of the content, or even completing their course of study.

We are all worried about the impact this will have on progression to post-16 study and higher education. In particular, the AMSP is concerned that a large number of students may feel less prepared for starting AS/A level Mathematics, Further Mathematics and Level 3 Core Maths courses in the sixth-form.

Equally, students in Years 10 and 12, midway through their GCSE and A level courses, have had their studies disrupted. The AMSP is concerned that this could lead to a fall in the uptake of Level 3 maths qualifications and applications for places on STEM degrees in 2021.

To help support the teaching and learning of maths during school/college closures in the summer term, the AMSP developed additional resources for Year 10, 11, 12 and 13 students. The focus has been to support schools/colleges in maintaining continuity of maths teaching. These resources are available free-of-charge to teachers and students. They aim to consolidate essential skills, whilst also providing extension and enrichment ideas to maintain students' interest in maths. The AMSP has also provided an extensive programme of online professional development for teachers. We hope that you have found the extra materials, guidance and support helpful. You can find a summary of these materials on the AMSP's [Support during school and college closures](#) web page.

The AMSP is considering further ways to support teachers and students in the autumn term, to address concerns around the transition to post-16 maths and uptake of Level 3 maths courses. These are outlined below.

We would value your feedback on the resources and support that the AMSP has provided so far, and on the support we might provide for the autumn term. We would be grateful if you could spend 10 to 15 minutes completing our online [survey](#). The feedback we receive will help us to prioritise the support we develop over the summer, so that we can best meet the needs of students and teachers.

The impact of the coronavirus outbreak on schools and colleges in 2020/21 continues to be uncertain. The AMSP will adapt its support to meet your needs as circumstances change.

Yours faithfully,

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AMSP Programme Leader

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We have considered how the school/college closures might affect the uptake of Level 3 maths and what the AMSP might do to help minimise the impact.

Sending a positive message to students about studying maths

Even under normal circumstances, many Year 11 students find the transition from GCSE to AS/A level study difficult in maths. Support from their teachers helps build their confidence, reinforcing the message that they can succeed, and emphasising the importance of Level 3 maths qualifications for future study and career choices. Evidence suggests that this is more of an issue for girls, who may have more choice of which subjects they could take and who may also be more risk averse. The AMSP website has information and resources to support Year 11 students with their subject choices, such as this [advice](#) for students.

In addition, the AMSP is planning to produce short videos and online presentations to promote the study of AS/A level Mathematics, AS/A level Further Mathematics and Core Maths.

Some current Year 11 students may be reluctant to commit to a full A level in Mathematics or Further Mathematics from September. Such students could be offered the AS qualifications in Mathematics or Further Mathematics as a short-term goal, alongside their other subjects. As their studies progress, they may decide to commit to continuing to full A levels in Mathematics or Further Mathematics in Year 13. The AMSP website suggests some related [strategies](#) that you may find helpful.

Students who do not intend to take AS/A level Mathematics, but who have a grade 4 or above in GCSE Mathematics, should be encouraged to study Core Maths. This will boost their confidence by consolidating and extending the maths they learned in GCSE. It will support their use of maths and statistics in other subjects, improve their preparation for further study and enable them to gain a Level 3 maths qualification that will support their access to higher education and/or employment.

Supporting current Year 11 students over the summer break

Despite this summer's disruption to GCSE courses, the AMSP is very keen for schools/colleges to allow as many students as they would normally onto Level 3 maths courses. To support this, the AMSP has developed [new materials](#) for students to consolidate their learning of GCSE Mathematics, so that they are as well prepared as possible. These materials include:

- Year 11 *Essential Skills* resources for students intending to study A level Mathematics
- Year 11 *Core Maths Skills* resources for those predicted a good pass or better in GCSE Mathematics, and intending to study non-maths A level subjects such as Biology, Psychology, Geography, Business; level 3 vocational courses; and/or level 3 Core Maths.
- Year 11 *Transition to A level Mathematics* online course to develop fluency in the techniques that underpin A level Mathematics, which students can follow independently.

Support for students starting A level courses in September

Some students starting AS/A level Mathematics and Further Mathematics in September may not be as well prepared as their predecessors. This may increase the likelihood of them dropping out of the course. Teachers will naturally want to support these students during the first few weeks of their courses. This may be especially challenging this year if schools/colleges are not back to teaching normal timetabled lessons.

In addition to the transition materials mentioned above, the AMSP is considering other ways in which it might support students and teachers during the autumn term, for example:

- Provide free, full access to MEI's Integral online teaching resources for AS/A level Mathematics and Further Mathematics for all teachers and students in state-funded schools/colleges for the

2020/21 academic year. This would be in addition to the access to Core Maths resources, which are available via registration with the AMSP.

- Produce a series of short video lessons which introduce A level Mathematics topics. These would facilitate a blended learning approach, where students are able to independently study the basics of some topics. This is especially helpful where face-to-face contact time with students is reduced.
- Provide and train mentors to support students, helping to maintain focus and raise confidence during the early weeks of their A level studies.
- Provide online webinars for students which consolidate key topics.

The AMSP already supports the teaching Further Mathematics, providing teaching resources and short video lessons for students via Integral. We also provide tuition for students taking Further Mathematics.

Promoting the uptake of mathematics in September 2021

Current Year 10 students, moving up to Year 11 in September, will be thinking about their post-16 options. They may be feeling anxious about their GCSEs and schools/colleges will want to give them encouragement to consider studying maths. The AMSP has produced materials for use at open evenings etc., such as:

- Our [Opening the door to your future leaflet](#), available to download from the AMSP website or in hard copy from the AMSP office.
- A sixth-form Open Evening presentation for schools/colleges to adapt and use.

In addition, the AMSP is considering producing further materials to help with the promotion of maths:

- A 'virtual open evening' presentation with key information and FAQs about Level 3 maths courses.
- A live online presentation for students and parents about why Level 3 maths is an excellent choice, around the time of GCSE results day.

Supporting the retention of Year 12 students

You may be concerned about current Year 12 students who may be thinking of dropping their A level Mathematics and/or Further Mathematics courses at the start of Year 13 due to missed teaching time during the summer term. Regular contact with these students will help to reassure them and build their confidence.

The AMSP is considering how to help schools/colleges support these students, for example, providing additional materials covering key topics from Year 12 that are pre-requisites for Year 13 content, which students can work through independently.