

## Focus of the Month July 2017

### Resources for teaching the new A levels

Our focus for this month is the resources that the Further Mathematics Support Programme (FMSP) and others provide for teaching the new A levels.

#### Developing a scheme of work

Your first priority will be developing a scheme of work for Mathematics and Further Mathematics.

MEI has developed a fully editable [scheme of work](#) for A level Mathematics suitable for all specifications, along with several suggested schedules for delivery.

Editable [schemes of work](#) for individual components of AS Further Mathematics are available, along with some suggested schedules for AS Further Mathematics for all specifications.

For further flexibility, the FMSP has also developed an [online course planner](#) for A level Mathematics and Further Mathematics, tailored to each awarding organisation and specification. The planner reveals the list of skills within any given topic, along with their associated prerequisite and dependent skills. You can then order the topics for two or more teachers and the planner will highlight potential problems if all the pre-requisites have not been covered. You can export your results once you have completed the planning.

**Course Planner** How to use this planner

OCR | OCR(ME) | Edexcel | AQA

**Fill in:** Use the green crosses twice to add the course components you want to include

AS Pure Year 1	AS Pure Year 2	Further Mathematics A level ONLY	Further Mathematics A level ONLY	AS Skills Mechanics	A Level Math: Statistics A level ONLY
+	+	+	+	+	+
Further Mathematics A level ONLY	Further Mathematics A level ONLY	Further Mathematics A level ONLY	Further Mathematics A level ONLY	Further Pure Year 1	Further Pure Year 2
+	+	+	+	+	+
Further Mathematics A level ONLY	Further Mathematics A level ONLY	Further Mathematics A level ONLY	Further Mathematics A level ONLY	Further Mathematics A level ONLY	Further Mathematics A level ONLY
+	+	+	+	+	+

**RESTORE PLAN** **EXPORT PLAN**

↓↓↓

↑↑↑

←←←

→→→

including

excluding

Proof	Algebra: Quadratics, Equations and Inequalities
Algebra: Surds and Indices	Algebra: Functions and Graphs
Coordinate Geometry	Differentiation
Complex Numbers	Integration

## Online resources for teaching

Many schools have chosen to supplement traditional textbooks with a range of online resources.

[Integral](#), which offers comprehensive resources for A level Mathematics and Further Mathematics, are revising and enhancing their support for all of the new AS and A level specifications. Samples of the new resources are available on their [website](#).



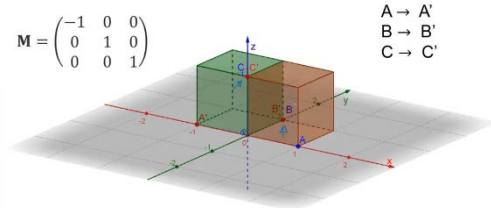
Don't forget that, as a registered school, you will continue to have teacher access to the Further Mathematics, A level mechanics and A level statistics content. Student access can be obtained through an annual [subscription](#).

## FMSP videos for Further Mathematics

### Transformations in 3-D

What does the following transformation matrix represent?

$$M = \begin{pmatrix} -1 & 0 & 0 \\ 0 & 1 & 0 \\ 0 & 0 & 1 \end{pmatrix}$$



$$\begin{array}{l} A \rightarrow A' \\ B \rightarrow B' \\ C \rightarrow C' \end{array}$$

The FMSP is currently producing videos that are available free to registered schools.

Schools and colleges can also get individual FM Video+ accounts, granting students access to the videos, plus all the Further Mathematics resources available on Integral for their specification. The cost of

these will be £30 per student. [More details](#) of the FM Video+ accounts and the videos themselves, including samples, are available on our website.

## Other free resources for teaching

The FMSP website has a [free resources](#) page that contains resources to support A level maths, problem solving, STEP and also GCSE materials which will help prepare students for the transition to A level.

On the MEI website there is advice and resources for [incorporating technology](#) into A level teaching.

[Underground Mathematics](#) has a wide range of interesting and exciting resources for A level Mathematics and Further Mathematics which are free of charge.

NRICH has produced a [curriculum mapping document](#) for the new A level, to help teachers to embed problem solving and promote rich mathematical thinking in the classroom. The first draft is now available to download.

## Awarding organisations

You can find out more about the different specifications and the support provided at the links below:

[AQA](#)

[Edexcel](#)

[OCR](#)

[OCR\(MEI\)](#)