ETF Maths Pipeline Programme:

Supporting maths in the post-16 sector

These short clips show post-16 practitioners and learners in a range of settings engaged in active learning activities. The main aim is to support practitioners to reflect on and develop their practice; several of the clips could also be used to engage relatively reluctant learners. The set of clips below focuses on GCSE maths; other sets focus on vocational learning and on learning in the Secure Sector.

GCSE Mathematics

Starter activities to assess prior knowledge and consolidate learning

In these clips we see ideas of how to assess learners' prior learning using starter activities. As you are viewing the clips, reflect on how you could adapt these activities, or use others like them, to check understanding and consolidate learning.

Data handling – averages
Shape and space – area and volume
Shape and space – coordinates
Algebra – substitution

Practical activities to support learning

In these clips we see how using practical activities can enhance learning and motivate learners. As you are viewing the clips, reflect on how you could use practical activities in your lessons.

Area and perimeter of circles
Drawing 2D representations of 3D shapes
Volume of a cylinder

Case Studies

Building on learners' understanding of transformations
In this clip we see an example of how to engage learners while looking at transformations. As you are viewing the clip, think about your own learners and whether you could use or adapt this activity to use with them.

The transparency used in this video is available in the Standards Unit resource, Improving learning in mathematics.

Building on learners' understanding of algebra
In this clip we see how a practitioner uses active learning to assess learners' understanding of algebra and then to consolidate their learning. As you are viewing the clip, consider your own learners

and whether you could use or adapt these activities to use with them.

Some of the resources in this video can be found in the Standards Unit resource, Improving Learning in Mathematics.

Solutions to exam-style questions

Trigonometry

If you would like to find out more about the sine rule before starting this question, take a look at this BBC Bitesize resource. You may also want to work through the BBC Bitesize Trigonometry resource.

Statistics

If you would like to find out more about box plots and interquartile range before starting this question, take a look at this DISCUS resource. Follow these hyperlinks to find out more about discrete and continuous data, the median, cumulative frequency, quartiles and interquartile range.

Standard Form

If you want to find out more about standard form before starting this question, take a look at this Maths Assessment Project resource.