



Advanced Mathematics
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Standard

National Centre
for Excellence in the
Teaching of Mathematics



Core Maths Conference: Teaching Quantitative Skills at A level

Manchester

5th February 2020

Overview

A free one-day professional development conference which focuses on developing confidence in working on quantitative skills at A level. This day will be valuable to any teacher whose subject includes quantitative analysis, particularly Biology, Geography and Psychology.

There are optional workshops so that you can focus on the particular mathematical requirements that feature in your course. Strategies and ideas will be provided for teachers to use in their classrooms to deepen their students' understanding and there will be an opportunity to develop confidence in working with real data using technology.

We welcome first time or returning conference delegates. As we are now offering optional workshops there is something for everyone, so please feel free to sign up if you've attended a previous conference and regardless of your level of mathematical experience.

Aims

- Develop approaches for planning, teaching and assessing quantitative skills effectively within your AS and A level courses.
- Understand how studying Core Maths will support students with the mathematical components of your other subjects.
- Network and share ideas with fellow teachers.

Who will benefit from attending?

These conferences are aimed at non-maths teachers. If you are a maths teacher, please see [here](#) for our free conferences for you.

We welcome first time or returning conference delegates.

Content

Delegates will have the opportunity to select two workshops and will also attend a session on using technology.

Technology Session

Is there a link between BMI and blood pressure? Is there a link between GDP and life expectancy? Is there a link between IQ and brain size? In this session we'll take a look at the ideas around correlation and show how using technology can help students visualise these concepts easily. Delegates are requested to bring a smartphone or a WiFi-enabled tablet for this session.

You will select one workshop from the following for the first optional session:

Session Title	Session Description
Making the Call	This session will explore the accessible conceptual underpinnings of statistical inference and how when working with samples and reasoning in uncertain situations. It is aimed at teachers who are tests or who would like to know more about current research-based recommendations for statistical conceptual foundations for statistical tests would be developed alongside students' very first experience will focus on how simple ideas suitable for learners at KS2, 3 and 4 can be explored by older learners ideas accessible and intuitive.
Chi Squared Tests	This session will look at the use of chi squared tests in A level Biology, Geography and Psychology concepts to students. No previous knowledge is expected.
Teaching Averages and Spread	During the session we will model approaches of the teaching of averages and standard deviation assessed in other A levels. No prior Level 3 teaching knowledge is expected.

You will select one workshop from the following for the second optional session:

Session Title	Session Description
Teaching Percentages	Despite students first encountering percentages in Year 5 it can continue to be a challenging topic in Year 3. This session will explore different approaches to teaching percentages and will demonstrate how students understanding and ability to problem solve. You will leave this session with strategies to embed the teaching of percentages throughout your course.
Interpreting Graphs	You only have to open a newspaper...or social media application...to be bombarded with graphic information. How are we equipped to deal with this information overload? This session will focus on how information presented to teachers with an opportunity to inspire curiosity in their learners, deepen understanding and hook them into the curriculum.
t-tests	This session will look at the use of t-tests in A level Biology and Geography. It will include ideas for teaching. No previous knowledge is expected.

Eligibility

Priority will be given to teachers from state-funded schools and colleges.

Programme

09.30-10.00	Registration and Refreshments
10.00-10.30	Welcome and Warm-Up Problem
10.30-11.45	Technology Session
11.45-12.00	Break
12.00-13.00	Optional Session 1
13.00-14.00	Lunch and networking
14.00-15.00	Optional Session 2
15.00-15.30	Next Steps and Evaluation

Cost

This conference is free of charge to state-funded schools and colleges. Schools and colleges located within AMSP [Priority Areas](#) are eligible for a further subsidy of £250 in addition to their course fee reimbursement. Please visit the [AMSP subsidies](#) page for more information.

Key Facts

Event ref:	#6232
Audience:	Teachers
Curriculum focus:	Core Maths
Mathematical focus:	Statistics, Use of technology, Curriculum planning
Event format:	Conference
Event length:	1 day
Region:	North West
Venue:	Manchester Meeting Place, Sackvill Street Campus, The University of Manchester, Sackville St, Manchester, M1 3AL
Date:	Wed 5th Feb 2020
Course times:	09:30 - 15:30
Fee:	Free
Priority Area subsidy:	£250

Registration

For more information, or to register for this event, please visit <https://amsp.org.uk/events/details/6232>