

The Advisory Committee on Mathematics Education



Dr Mary McAlinden

HoDoMS Conference

Tuesday 14 April 2015

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Update 2014-15

- Introductory overview
- Maths Snapshots
- Reform of qualifications
- Project work
 - Initial teacher education
 - Statistics in A levels
 - Problem solving and reasoning

The Advisory Committee on Mathematics Education

The Committee

- The Advisory Committee on Mathematics Education (ACME) is an independent committee that utilises its expertise to develop advice to influence mathematics education policy.

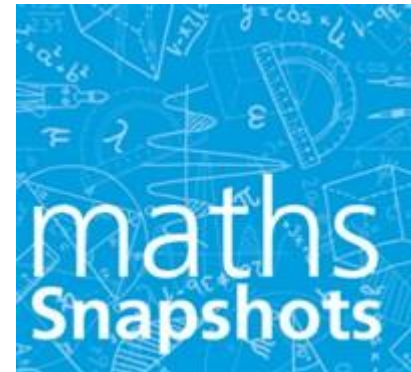
ACME's work

- ACME undertakes evidence-informed analysis, harnessing and reflecting the expertise of the mathematics community.
- ACME's work ranges from early years through to school and college mathematics education.

ACME's Maths Snapshots

Publications in the series

1. Blueprint for mathematics education
2. Maths education policy
3. The maths curriculum
4. Maths for all to 18
5. Teachers of maths: supply training and development
6. International comparisons and maths education



ACME's Blueprint for Mathematics Education

Five principles

1. All young people value mathematics and develop confident, positive attitudes to learning and using it.
2. They are mathematically fluent and can reason and solve problems within mathematics, in other contexts and in their daily lives.
3. They are taught by well-qualified, effective and inspirational teachers of mathematics.
4. They study appropriate and engaging mathematics to the age of 18.
5. Policies that make this happen are joined-up, long-term, evidence-informed, transparent and well-designed.

Reforms to Qualifications

Current timescale

2015: The new GCSE Mathematics will be introduced.

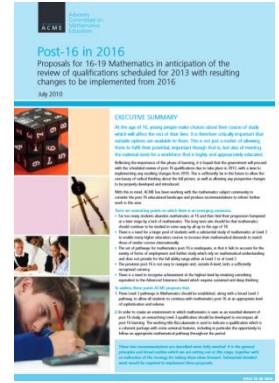
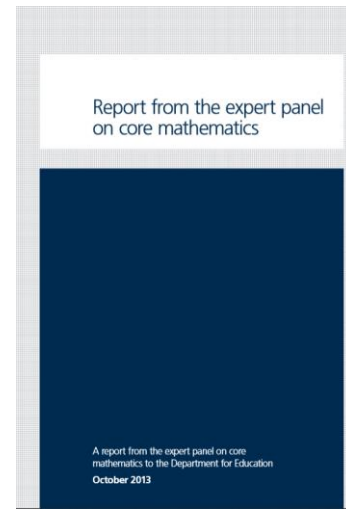
2015: Core Maths will be available to all schools and colleges.
Currently it is being trialled by early adopters.

2015: Increased mathematical requirements will start to be implemented across A levels in some other subjects.

2017: The new A level Mathematics and A level Further Mathematics will be introduced. The start date has been deferred from 2016.

The Route to Core Maths

For many years ACME has called for a new post-16 qualification suitable for learners with grade C in GCSE Mathematics who do not continue their mathematical study.



Core Maths

About Core Maths qualifications

- Core Maths is a level 3 qualification which is the same size as an AS level.
- The content of the qualification consolidates GCSE material and includes material beyond GCSE. The qualification is applied in nature, containing statistical work.
- 6 new Core Maths qualifications have been accredited.
- Teacher supply and professional development will be important in the delivery of Core Maths.
- Funding has been provided for the Core Maths Support programme.

Core Maths

“ACME strongly supports the Government’s aim to increase the numbers of students studying mathematics post-16... ACME very much wants Core Maths qualifications to succeed. For this to happen, we suggest that more work is needed to ensure the successful implementation of these qualifications in the years ahead. A clear communication strategy from the Government is needed to inform students and their parents, schools and colleges, higher education institutions (HEIs) and employers about the purpose and value of Core Maths qualifications.”

Professor Andrew Noyes, Deputy Chair of ACME,
letter to Elizabeth Truss, June 2014.

A Level Mathematics and Further Mathematics

- ACME has been active throughout the process of A level reform, working with key organisations.
- In August 2014, at the request of the Department for Education, ACME hosted a roundtable on A level reform, with the aim of drawing out common messages from the mathematics community.
- ACME expressed concerns about potential drops in A level Mathematics and Further Mathematics participation and has called for close monitoring of uptake.

A Level Mathematics and Further Mathematics

“I welcome that the new mathematics A levels will now be introduced in autumn 2017. This decision follows the advice given by ACME and the mathematics community that a delay was needed to help safeguard the increasing numbers of students taking mathematics at A level. The delay allows more time for considered preparation for teaching, learning and assessment.”

Professor Stephen Sparks, Chair of ACME
December 2014

ACME's Project on Initial Teacher Education

Background

- In recent years there has been a major shift from initial teacher education led by higher education institutions to school-led provision.
- The Carter Review of initial teacher education reported in January 2015 (www.gov.uk/government/publications/carter-review-of-initial-teacher-training).

ACME's project

- This work began in the autumn and aims to explore the characteristics of initial teacher education leading to high quality teaching and learning in mathematics.
- Initial work on international comparisons has been completed and currently a consultation is open until 15 April 2015 at: <http://www.acme-uk.org/media/24413/acmeitehaveyoursay2015.pdf>.

Other Project Work

Statistics

- ACME is currently working on a project on the statistics within reformed A level assessment across a selection of subject areas (other than mathematics). This work is being done in collaboration with the Royal Statistical Society.

Problem solving

- ACME has recently embarked on a project looking at assessment of problem solving and reasoning in mathematics.

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