The Joint Mathematical Council of the United Kingdom

A Charitable Incorporated Organisation

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Minutes of the hybrid General Meeting held at De Morgan House at 11.00 am on Thursday 13 February 2025

Andrew Wilson

Andrew Davies

Jane Liddle (deputy)

Vicky Wheelhouse (deputy)

Present

Officers

Chair Noel-Ann Bradshaw **Deputy Chair** Jenni Ingram Secretary Chris Chipperton Treasurer Fiona Curtis

Representatives of Participating Bodies

Adults Learning Mathematics Diane Dalby Association of Mathematics Education Teachers Fiona Curtis Association of Teachers of Mathematics Helen Madeley British Society for Research into Learning Mathematics Alf Coles British Society for the History of Mathematics Tony Mann

Edinburgh Mathematical Society

Heads of Departments of Mathematical Sciences Mary McAlinden Institute of Mathematics and its Applications Paul Glaister Mary McAlinden

London Mathematical Society The Mathematical Association

Mathematics in Education and Industry

National Association for Numeracy and Mathematics in Colleges

National Association of Mathematics Advisors

National Numeracy

NRICH

Operational Research Society Chiara Carparelli

Royal Academy of Engineering

Royal Statistical Society Zoe Nye Scottish Mathematical Council Bill Richardson

STEM Learning

United Kingdom Mathematics Trust

Wales Institute of Mathematical and Computational Sciences

Co-opted Members

Immediate Past President

UK Representative to the

International Commission on Mathematical Education

Social Media Lead Richard Perring

Representatives of Observing Bodies

Department for Education [England]

Department of Education [Northern Ireland]

Education Scotland

National Centre for Excellence in the Teaching of Mathematics Sue Madgwick

Hannah Stoten Office for Standards in Education The Office of Qualifications and Examinations Regulation Sarah Old

The Royal Society Cath Boulton

The Royal Society Advisory Committee on Mathematics Education Anthony Tomei Scottish Qualifications Authority
Welsh Government Education Department

Others in attendance

Academy for the Mathematical Sciences UCL

Lynne McClure Jennie Golding

1 Introduction

1.1 **Welcome** The Chair welcomed everyone to the meeting and in particular new members and deputies (Jane Liddle and Vicky Wheelhouse).

1.2 Practical Arrangements

1.3 **Apologies for absence** Apologies for absence were received from:

Paul Glaister (IMA); Andy Kemp (MA); Charlie Stripp (MEI) – deputy: Vicky Wheelhouse;

Ruth Trundley (NAMA) – deputy: Jane Liddle; Paul Milner (National Numeracy);

Liz Woodhall/Charlie Gilderdale (NRICH); Michael Anderson (STEM Learning);

Sofya Lyakhova (WICMS); Andy Noyes (Immediate Past Chair);

Catherine MacKenzie/Ellie Johnson (DfE); John Neeson (Education Scotland)

2 Minutes of the meeting held on 7 November 2024

2.1 **Approval of the minutes of the meeting on Thursday 7 November** The minutes were approved subject to a correction to 10.2. The Mathematics Futures Report follows the 2023 discussion paper (not an interim report in 2013).

2.2 Matters arising not elsewhere on the agenda

1.1 A discussion took place regarding the varying the location of general meetings. London was considered to be easy to get too relative to other places. However, Birmingham may be a possibility. Identifying venues outside of London becomes more difficult. De Morgan House offers good value with effective hybrid facilities.

Exclusively online meetings were also considered. They might be good for routine business meetings, but discussion sessions are more difficult to manage; flexibility within the agenda would be harder to achieve. It may be that appropriate discussion topics would need to be chosen. The availability of presenters could be better. They would allow different timings for the day. It may also make in-person meetings more 'special'.

Trustees are to continue giving the issue further thought.

2.8 After due consideration, the Trustees invited Alf Coles to fill the vacant Co-opted Trustee position which he had accepted.

It was reported that STEM Learning had taken the decision to withdraw from JMC due to financial pressures. As a consequence, Michael Anderson was leaving Council and stepping down from being a Trustee.

Council had an open conversation about the impact of financial cuts. It was agreed that a letter/statement would be produced jointly on behalf of JMC and the Academy for the Mathematical Sciences **Action: Chair and Lynne McClure**.

3 Reports from Trustees

- 3.1 **Chair** The Chair's report was noted.
- 3.2 **Deputy Chair** The Deputy Chair
- 3.3 **Secretary** The Secretary's report was noted.

The Secretary reported that the trustees had discussed the coopted trustee vacancy. Having considered the breadth and balance of the trustees, Alf Coles had been invited to fill the role and had accepted.

Regretfully, it was reported that officers had been informed that, due to reduced funding, STEM Learning were withdrawing from membership of JMC.

Attention was drawn to the call for nominations for a new secretary that will go out in March. Elections will be held At the June meeting.

3.4 **Treasurer** The Treasurer drew attention to the potential reduction of income in the with STEM Learning withdrawal from JMC and if '5 into 1' comes into effect.

4 Updates

4.1 **Projects** The Chair updated Council on the three projects that are being pursued this year.

Al in mathematics education While still progressing, there has been some delay due to MM being busy. Mathematics teacher recruitment. Work on this project is now underway.

Working group on transition/KS3 It has been agreed to look at three areas: primary-secondary transition; motivation and engagement; curriculum.

4.2 **BCME** The Deputy Chair is representing Council on the BCME Committee but has not yet attended a meeting.

Current thinking is for BCME to be on a Friday and Saturday in November. Nottingham is a likely venue.

- 4.3 **'5 into 1' possible merger of classroom facing associations** It was reported that another meeting had recently taken place. The possible merger was still progressing, but was far more complicated than initially envisaged. A project manager has been appointed. Individual organisations have AGMs coming up.
- 4.4 **Academy for Mathematical Sciences** Particular attention was drawn to the note that Jack Worth would be sharing the latest information on teacher workforce/retention with the Education Committee.

The Academy website includes Maths can take you anywhere. A poster is going out to schools.

5 Reports from Participating Bodies

Representatives were thanked for their reports. The following points were highlighted:

- 5.1 ALM The annual conference will be taking place in England (July 9-11) for the first time in 7 years. They would welcome any publicity that can be given.
- 5.3 ATM The conference has 106 residential attendees and 150 day attendees; 2024 had 138 and 189 respectively. There is less money in the system and getting exhibitors is proving difficult.

There has been a micro CPD session with Jenni Ingram.

There is full engagement with the merger/integration conversations.

5.8 IMA There is ongoing work to revamp the accreditation of mathematics degrees.

The teacher scholarships scheme has a target of 270 scholars. It closes on 7 July.

5.11 MEI The Ritangle competition successfully came to an end.

Oak National Academy resources are fully available. This includes financial capability materials. There is a link to careers.

5.19 SMC A description of Scotland's school system was given. (Council was reminded about JMC's report on the four jurisdictions produced by Cathy Smith.)

It was also reported by the RS that there had been meetings with the Royal Society of Edinburgh (RSE) to discuss the Mathematics Futures report.

6 Reports from Observing Bodies

The reports from NCETM and the Royal Society were noted.

Other reports were received orally. In line with Council practice minutes of these were not recorded.

7 Discussion of Reports

There were no further points of discussion arising from the reports.

8 Any other business

There was no other business.

9 Discussion: TIMSS 2023

Council was joined by Dr Jennie Golding (IOE - Faculty of Education and Society, UCL)

TIMSS – Trends in International Mathematics and Science Study – takes place every 4 years. It assesses the performance of students in Y5 and Y9 (4th and 8th grades) an also has questionnaires.

In England, schools opt in on invitation. England has participated in every cycle since 1995.

59 countries participated in the Y5 study (mostly the more wealthy) and 44 in the one for Y9.

Y5 were Y2 in 2020 and Y9 were in Y6. There were no moderated assessment data available.

The performance data publication is imminent and the questionnaire data due late February/early March.

It is hoped to circulate the presentation slides, but some key points were:

Year 5

Y5 questions have a good match with the National Curriculum.

There has been a slight drop against the 2019 performance (effect of the pandemic?), but England is reasonably placed. Measurement and Geometry is statistically weaker while Data is statistically stronger.

In the cognitive domain, knowing is consistently strong.

Consideration is given against England's three comparator counties (Macao, Lithuania and Turkey), and the highest performers (Singapore and Chinese Taipei) and other English-speaking nations.

Boys outperform girls but are broadly comparable. Girls have dropped off considerably in 2023. This is not fully understood. Boys' recall shows a difference at the highest level.

Language is not such an issue in mathematics (as it is in science).

Socio-economic status (FSM) is a factor.

Attitude has a gender gap based on a number of statements (4-point Likert scale).

There is less use of digital devices in schools.

Teachers are less satisfied than the international average. Factors include the volume of the curriculum, preparation time, and the volume of administrative tasks.

Year 9

There was a good match to the curriculum.

There was no sign of a drop due to the pandemic.

Number and Data were reasonably strong. Algebra, and Geometry and Measurement were reasonably weak.

Knowing and Applying was strong while Reasoning was relatively weaker.

Absence was a matter of concern.

There was a gender gap in favour of boys. This year it was the biggest of all countries.

Socio-economic status is significant, but first language is not.

Use of digital devices is much more in line internationally, although not for taking tests.

Challenges include the number of teaching hours, preparation time, and the volume of administrative tasks.

Overall

- The 2023 performance was surprisingly encouraging.
- England performed well against international comparisons
- · Gender gaps are a real issue

- Attitudinal gaps have widened
- There is increased absence

10 Conclusion

The Deputy Chair thanked everyone for their attendance and closed the meeting.

11 Dates of future meetings

- Thursday 12 June 2025 at De Morgan House (Deadline for papers: Thursday 29 May 2025)
- Thursday 6 November 2025 at De Morgan House (Deadline for papers: Thursday 23 October 2025)