

maths INSPIRATION

JANUARY
2020



Annual REVIEW

2019 was another outstanding year for Maths Inspiration with 23 maths shows across England, Wales and Scotland attended by over 12,500 young people.

A priority of the year was to increase the diversity in our shows. That not only means seeing diversity amongst the pupils that attend Maths Inspiration events, but also in our speakers. Our presenters are role models, and if we are going to inspire our audiences, it helps if they can see someone they can relate to on stage.

We are pleased that for several years, every Maths Inspiration show has had at least one woman on stage, and we think it is no coincidence that over 40% of our audiences are girls, particularly as in 2019, only 8.1% of girls went on to take maths A Level after GCSE, compared to 15.6% of boys.*

Our strategy for increasing diversity has had two important components:

- Recruiting and coaching more women speakers, and speakers with more diverse ethnic backgrounds
- Offering free or heavily subsidised seats for schools in deprived areas.

We are always on the look-out for new topics that will engage our audiences.

For example teenagers are increasingly concerned about environmental and climate issues, and we sought out a speaker with a mathematical angle on this topic. Engineer Hilary Costello took to the stage in Newcastle and Cambridge, and examined what can be done to make aircraft more fuel efficient.

It's important that our shows are stimulating and enjoyable, but that's of little use unless we get 'reluctant' and unconfident students to attend in the first place.

One way in which we continue to attract a wide range of schools is by keeping our shows affordable. This year, sponsorship enabled us to offer 600 free seats to less affluent schools. For our show in Lincoln, we were able to use sponsorship to pay for a coach to bring groups from three schools based in deprived areas of Doncaster.

In 2020, we will continue to develop new speakers and material so that our shows remain relevant and interesting to young audiences.

ROB EASTAWAY
Director of Maths Inspiration

* from the 2019 Joint Council for Qualifications Report

Yolanda Ohene made her debut for Maths Inspiration in 2019

HOW WE DEVELOP NEW SPEAKERS

We are always on the lookout for potential new speakers, asking our network to let us know of people who have a spark in their presentation style, an interesting topic to talk about and a burning desire to communicate maths to young people. When we identify possible speakers we then start our selection process. Initially we will meet a speaker and assess their presentation style by watching them give a presentation. Before a speaker gets to present at one of our shows, we provide them with personal coaching sessions. These sessions help to refine the narrative of their talks, fine-tune their slides, and hone the way they deliver their material so it appeals to a teenage audience. Nobody does a perfect talk first time round, so we take care to give each speaker constructive feedback so they can continuously improve their skills and their appeal to teenagers.

Speakers in 2019

Aoife Hunt
Ben Sparks
Colin Wright
David Acheson
Hannah Fry
Helen Pilcher
Hilary Costello
Hugh Hunt
Jen Rogers
John Roberts
Kyle Evans
Matt Parker
Paul Shepherd
Rob Eastaway
Steve Mould

*New Speakers
this year:*

*Nira Chamberlain
Tom Crawford
Yolanda Ohene
Zoe Griffiths*



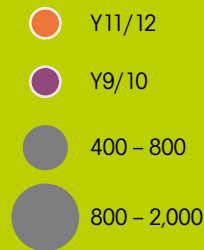
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"Fantastic afternoon – our students across year groups enjoyed all the speakers, we'd recommend this to other schools."

Teacher, John Masefield High School, Glos.

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"This has motivated me to get into maths"

Year 11, The Derby High School, Manchester

2019 SHOWS:
Number of teenagers attending



2019 THE SHOWS

Example of a show

Manchester, November 2019 (Morning show)
Attendance: 605

- 10am **Matt Parker** – Welcome, maths cameo
- 10:15 **Rob Eastaway** – *Maths on the Back of an Envelope*
- 10:50 **Aoife Hunt** – *The Shape of Escape: the maths behind crowd behaviour.*
- 11:25 Stretch break (with audience estimation challenge)
- 11:35 **Matt Parker** – *Results of audience challenge*
- 11:45 **Hugh Hunt** – *Maths in a Spin*
- 12:20 Q&A session
- 12:30 End





Our venues in 2019

- Bath – Forum
- Birmingham – New Alexandra
- Cambridge – West Road Concert Hall
- Cardiff – RWCMD Dora Stoutzker Hall
- Edinburgh – George Square Theatre
- Leeds – Town Hall
- Lincoln – New Theatre Royal
- Liverpool – Capstone Theatre
- London – Savoy Theatre
- London – Royal Institution
- Manchester – RNCM Theatre
- Newcastle – Northern Stage
- Portsmouth – New Theatre Royal
- Reading – Hexagon Theatre
- Sheffield – Crucible Theatre
- Winchester – St Swithun’s Theatre

- 1 Hugh Hunt explains angular momentum at the Manchester RNCM Theatre.
- 2 End of show Q&A: Hannah Fry with Rob Eastaway and Colin Wright as Matt Parker asks the questions at London’s Phoenix Theatre.
- 3 Yolanda Ohene demonstrating the maths behind MRI scanners at the Crucible, Sheffield.
- 4 Ben Sparks setting the audience up before making a bet with them.
- 5 Nira Chamberlain with volunteers doing some mathematical modelling at the Birmingham New Alex Theatre.
- 6 Aoife Hunt talks about the maths behind managing the crowds at Glastonbury
- 7 Packed in at Sheffield Crucible
- 8 Schools gather outside the Bristol Hippodrome.
- 9 1,000 came to our show at the Bristol Hippodrome.

Our sponsors and partners

We work hard to keep our ticket prices low and to make our shows accessible to everyone in the target age groups. In 2019 over 85% of our audience came from state schools.

We do this by attracting sponsors and partners who subsidise the cost of the shows. We would like to thank all of our sponsors and supporters (listed below) for helping us to promote maths to the next generation.

Admiral Insurance

National sponsor, and exclusive sponsor of our Cardiff shows. Admiral have supported us since we started, and have enabled us to expand our programme nationally.

Bank of America

Bank of America's main UK centres are in Chester and Camberley, and in 2019 they supported our shows in Manchester and Reading. BoA has also enabled us to put on a show at Chester's Storyhouse Theatre in 2020.

Advanced Maths Support Programme

Delivery partner of our Year 9/10 summer shows, enabling us to offer free seats to students from target schools.



MATHS INSPIRATION

18 Colwell Road, London SE22 8QP | Tel: 020 8693 9259

Company number: 08463952 | www.mathsinspiration.com



John Roberts reminds our audience in Sheffield that the show is taking place on Engineering Day in the UK.

Trinity College Cambridge

A grant to enable us to make all teacher and PGCE seats free.

Institution of Structural Engineers

Grant funder, at least two shows feature structural engineering speakers.

Royal Institution of Great Britain

The Royal Institution endorsed our shows, and also allowed us free use of their historic lecture theatre in London's Mayfair for two Year 9/10 summer shows.

Newcastle University

Supporters of our Newcastle show.

The Maths Inspiration Team

Rob Eastaway – Director

Sarah Cooper – Administration

Elaine Standish – Accounts

Jill Walsh – Associate

Andy Sharpe –

Yorkshire school liaison

Leona So –

North West school liaison

The Teachers Advisory Panel

The views and feedback from teachers play a vital role in planning our shows. Our teacher panel is made up of ten experienced maths teachers from around the country, teaching at sixth form colleges, local authority run comprehensives, independent fee-paying schools, free schools, single-sex schools and academies. All panel members volunteer their time and in return their school is awarded ten free tickets for any MI show they attend.

We contact the panel when we want to test ideas or to get feedback on practical issues or problem solve. We'd like to give a special thanks to our panel members who take the time to share their insights and ideas with us. It gives us a better understanding of what's happening in the classroom and helps to ensure that Maths Inspiration keeps up with current trends. A full list of current panel members is available on the website.