GCSE Maths in ACTION

Midlands

NOV
18
2026

GCSE Maths in Action

Welcome to our GCSE Maths in Action day!

Join us for the ultimate maths enrichment day designed for KS4 students. Through five high-energy, interactive sessions, students will unlock the magic of mathematics, deepen their understanding of key principles and discover just how exciting maths can be.

Our incredible speakers, from leading academics to industry experts, will showcase the real-world applications and value of maths, in ways that will captivate and inspire.

With live polls, quizzes, and audience participation, this isn't just a lecture – it's an experience! Plus, our Exam Success session will equip students with expert strategies to excel in their exams. *Join us at GCSE Maths in Action where maths comes to life!*

Host: Dr Matt Pritchard (STEM Communicator)

Exam Session: Dr Jamie Frost (Dr Frost Maths)

- Tomorrow: It's Not a Question of When, But Where!
- What do they know? Epistemic logic in games
- Magical Maths
- Pokémaths – the maths behind the video game
- Maths' Greatest Unsolved Puzzles

University of Warwick,
Coventry,
CV4 7AL

Venue: £19.50 +VAT *

Plus one COMPLIMENTARY staff ticket per 10 students.

*VAT may be reclaimable. Please check with your finance department

Education in Action is the leading provider of inspirational, informative, Education in Action study days for A-level, IB, BTEC and GCSE students.

Award-winning, world-class speakers
Cutting-edge content
Thought-provoking demos and presentations
Examination hints, tips and guidance
Modestly priced to offer access to all
Complimentary staff ticket for every 10 students booked
Bookings can be amended up to 28 days before the event day

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Tomorrow: It's Not a Question of When, But Where! /
Vanessa Madu – Science and Maths Communicator

Why does the International Date Line look like it was drawn by a toddler? Using spherical polar coordinates and a dose of geopolitical chaos, this talk covers why the line exists, how it has been deformed by history, and how, mathematically speaking, we could make it much, much worse.

Vanessa Madu is a PhD researcher in Statistical Machine Learning at Imperial College London, a Guest Teacher in Mathematics at the LSE, and a freelance science communicator. She believes that mathematics is the closest thing we have to magic and enjoys helping others see why.

Pokémaths – the maths behind the video game /
Tom Crawford – University of Oxford

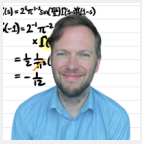
How many Pikachus does it take to power a lightbulb? How much does a Charizard eat? And why does the world of Pokémon seem to ignore the basic laws of physics? Dr Tom Crawford looks at the maths behind one of the world's favourite video games.

Dr Tom Crawford, a mathematician at the University of Oxford, shares his love for maths through tomrocksmaths.com, showcasing favourite equations on Numberphile, and sporting maths tattoos (14 and counting).

What do they know? Epistemic logic in games /
Jamie Frost – Chief Mathematician at Dr Frost Learning

Ever wondered what other people know, and if what they know you know? You likely know we can use algebra to represent values like numbers and sets, but what about representing knowledge? In this talk, we look at the ingredients needed to represent beliefs and announcements, and how we can formally make deductions with games like Cluedo and with party hats! And perhaps a paradox or two thrown in for fun.

Jamie is the founder and Chief Mathematician at Dr Frost Learning, providing resources for mathematics teaching and an online homework setting platform. Catch him on TikTok for everything from 'What mathematically is the squarest country?' to Fibonacci numbers in running.



Maths' Greatest Unsolved Puzzles /
Katie Steckles – Mathematician and Communicator

While mathematicians are undoubtedly brilliant, and their work underpins amazing scientific discoveries, there are still questions they can't answer. Every mathematical question is a puzzle to be solved, and while there'll be plenty for you to chew on – including number, shape and spatial thinking – we'll also discuss things that can still leave mathematicians stumped: from simple-sounding problems to some truly mind-bending fundamental questions.

Katie is a mathematician based in Manchester, who talks about mathematics at universities, schools events, festivals, on BBC radio and TV, in books and on the internet.

Magical Maths /
Matt Pritchard – Scientist and Magician

Predicting the future, reading minds, sending secret messages, teleporting, and making objects vanish are easy when you're a maths magician.

Dr Matt Pritchard is a magician and a member of the Magic Circle. He is a lapsed atomic physicist with a love of recreational maths. He is also a member of the Science of Magic Association, which aims to foster research collaborations between magicians and psychologists. (Photo credit: Twist Museum)

Education in Action

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