



Mathematics Super Curriculum

Contents Page

Website Links:

Oxford Mathematics Alphabet
The Oxford Online Maths Club
A Level Maths Teaching Resources – Underground Mathematics
NRICH
Step Support Program
Tom Rocks Maths
Brilliant
Millenium Mathematics Project
Dr Frost Maths
Women in STEM
Birmingham Popular Maths Lecture

Podcasts:

BBC Radio 4 – In Our Time, Science
NCETM Maths Podcast
The Secrets of Mathematics – University of Oxford
BBC Radio 4 – In Our Time, Carl Friedrich Gauss
BBC Radio 4 Extra – A Brief History of Mathematics

Journals/Articles:

Plus Magazine
New Scientist
Chalkdust Magazine

Mathematical Authors:

Marcus duSautoy
Simon Singh
Ben Goldacre
Stephen D Levitt
Alex Bellos
Matt Parker
Ian Stewart
David Acheson
Hannah Fry
Rob Eastaway
Talithia Williams

Videos:

Numberphile
Oxford Mathematics
Maths Olympiad Questions
Math talks to blow your mind.
Can you solve this riddle?
Stand Up Maths

Competitions:

Solo Competitions – UK Mathematics Trust
International Mathematical Olympiad



Websites Links

[Oxford Mathematics Alphabet](#) – members of the Oxford Mathematical Institute showcase interesting ideas and research being undertaken.

[The Oxford Online Maths Club](#) – Every Thursday at 16:30 (UK time) the club discuss problems and puzzles and present mini-lectures. The livestreams are recorded should you miss any.

[A level maths teaching resources | Underground Mathematics](#)

[NRICH - Mathematics Resources for Teachers, Parents and Students to Enrich Learning \(maths.org\)](#)

[Welcome | STEP Support Programme \(maths.org\)](#) – This free online STEP Support Programme is offered by the University of Cambridge to help university applicants develop their advanced mathematical problem-solving skills and prepare for STEP mathematics exams.

[TOM ROCKS MATHS – Maths, but not as you know it!](#)

[Brilliant | Learn interactively](#) – Guided interactive problem solving that's effective and fun. Master concepts in 15 minutes a day.

[Millennium Mathematics Project \(maths.org\)](#) – The Millennium Mathematics Project (MMP) is a maths education and outreach initiative for ages 3 to 19 and the general public. The MMP is a collaboration between the Faculties of Mathematics and Education at the University of Cambridge, and is active nationally and internationally. Our focus is on increasing mathematical understanding, confidence and enjoyment, developing problem-solving skills, and promoting creative and imaginative approaches to maths.

[DrFrostMaths.com](#) – **Supporting learners all the way.**

1. Catering for learners of all ages with 1000 question generators, known as **Key Skills**, and 40000+ exam questions for broader practice.
2. Supported with full workings and worked-example videos.
3. Sequential and scaffolded learning via **courses** crafted in-house, by exam boards and by schools.

[Women in STEM - Women & girls in science, tech, engineering and maths](#)

[Birmingham Popular Maths Lecture - University of Birmingham](#) – The Birmingham Popular Mathematics Lectures are open to all members of the public and the University who are interested in the study of Mathematics. They are particularly suitable for those studying Mathematics at A Level but we also welcome advanced GCSE students. The lectures are free of charge and run on the last Wednesday of each month, between October and March, at 7pm.

Podcasts

[BBC Radio 4 - In Our Time, Science](#) – Scientific principles, theory, and the role of key figures in the advancement of science

[The Secrets of Mathematics | University of Oxford Podcasts](#) – A series of talks and lectures from Oxford Mathematicians exploring the power and beauty of their subject. These talks would appeal to anyone interested in mathematics and its ever-growing range of applications from medicine to economics and beyond.

[BBC Radio 4 - In Our Time, Carl Friedrich Gauss](#) – Melvyn Bragg and guests discuss the ideas of Gauss, 'prince of mathematicians', including those on number theory, geometry, probability theory, astronomy and electromagnetism.



[BBC Radio 4 Extra - A Brief History of Mathematics](#) – Professor of Mathematics Marcus du Sautoy reveals the personalities behind the calculations and argues that mathematics is the driving force behind modern science.

Journals/Articles

[Plus magazine](#) – Presenting practical applications of mathematics across a range of topics

[Newscientist](#) – Although mainly focused on science, maths will often feature in terms of analysis and applications of models.

[Home - Chalkdust \(chalkdustmagazine.com\)](#) – A magazine for the mathematically curious.

Mathematical Authors

Marcus duSautoy – is a British mathematician, Simonyi Professor for the Public Understanding of Science at the University of Oxford, Fellow of New College, Oxford and author of popular mathematics and popular science books – [About Marcus – Marcus du Sautoy \(ox.ac.uk\)](#)

Simon Singh – A British popular science author, theoretical and particle physicist. He is also a journalist and television producer who specializes in science and mathematics. He has written several books on science and mathematics, including the 'Big Bang' – [Simon Singh | simonsingh.net](#)

Ben Goldacre – is a British physician, academic and science writer. He is the first Bennett Professor of Evidence-Based Medicine and director of the Bennett Institute for Applied Data Science at the University of Oxford.

Stephen D Levitt – is an American economist and co-author of the best-selling book *Freakonomics* and its sequels.

Alex Bellos – is a British writer, broadcaster and mathematics communicator. He is the author of books about Brazil and mathematics, as well as having a column in *The Guardian* newspaper – [Alex Bellos](#)

Matt Parker – author, comedian, You Tube personality and science communicator based in the United Kingdom. His book *Humble Pi* was the first maths book in the UK to be a Sunday Times No. 1 bestseller. Parker was the Public Engagement in Mathematics Fellow at Queen Mary University of London. He is a former maths teacher and has helped popularise maths via his tours and videos – [Matt Parker | Standup Mathematician \(standupmaths.com\)](#)

Ian Stewart – is a British mathematician and a popular-science and science-fiction writer. He is Emeritus Professor of Mathematics at the University of Warwick, England.

David Acheson – [BOOKS | David Acheson](#)

Hannah Fry – Hannah Fry is a British mathematician, author, and radio and television presenter. She is Professor in the Mathematics of Cities at the UCL Centre for Advanced Spatial Analysis. She studies the patterns of human behaviour, such as interpersonal relationships and dating, and how mathematics can apply to them. Fry delivered the 2019 Royal Institution Christmas Lectures – [Books - Hannah Fry](#)

Rob Eastaway – is an English author. He is active in the popularisation of mathematics and was awarded the Zeeman medal in 2017 for excellence in the promotion of maths. He is best known for his books, including the bestselling *Why Do Buses Come in Threes?* and *Maths for Mums and Dads* – [Rob Eastaway - Home](#)



Talithia Williams – is an American statistician and mathematician at Harvey Mudd College who researches the spatiotemporal structure of data. She was the first black woman to achieve tenure at Harvey Mudd College. Williams is an advocate for engaging more African Americans in engineering and science – [Talithia Williams, Ph.D.](#)

Videos

[Numberphile](#) – a youtube channel dedicated to discussing weird and wonderful maths and puzzle.

[\(7\) Oxford Mathematics - YouTube](#)

[\(7\) Maths Olympiad Questions - 2017 IMO C1 - YouTube](#)

[Math talks to blow your mind | TED Talks](#)

[\(7\) Can You Solve This Riddle? - YouTube](#)

[Stand-up Maths - YouTube](#)

Competitions

[Solo competitions | UK Mathematics Trust \(ukmt.org.uk\)](#)

[International Mathematical Olympiad \(imo-official.org\)](#)