

12 supercurriculars that strengthen your child's Mathematics application.

What top universities actually want to see beyond A-level grades.

the activities:

*Your child doesn't need to do all 12. Pick 2-3 that genuinely interest them and go deep.
Admissions tutors can spot a checklist approach immediately.*

1. **UKMT Senior Maths Challenge + BMO**

The single most recognised maths supercurricular. Oxbridge tutors genuinely value strong UKMT performance, and qualification for BMO1 is a serious signal.

Start here: Enter via school or register at ukmt.org.uk. Start with Senior Challenge in Year 12. BMO1 qualification is the stretch goal.

2. **TMUA Preparation**

Required for Maths at Cambridge, Imperial, and Warwick. Also used by Durham, LSE, and others. This is your entry ticket.

Start here: Past papers free at admissionstesting.org. Start UKMT in summer of Year 11 to build reasoning, then move to TMUA papers in summer of Year 12.

3. **STEP Preparation**

Cambridge makes STEP part of the offer for Maths. Warwick accepts it too. This is a post-offer exam, not an entry test, but preparation starts early.

Start here: Past papers and solutions at stepmathematics.org.uk. Work through papers alongside A-level content. The thinking style is what matters, not just the answers.

4. **Read University-Level Maths**

Shows you understand what the degree actually involves. Admissions tutors want to see you've engaged with real mathematics, not just the A-level syllabus.

Start here: [How to Think Like a Mathematician](#) by Kevin Houston is the standard. Also: *Mathematics: A Very Short Introduction* by Timothy Gowers.

the activities (continued):

5. **3Blue1Brown + Numberphile**

The best maths content on YouTube. Builds visual intuition for concepts most students only see algebraically. Admissions tutors notice when a student can explain ideas geometrically.

Start here: [3blue1brown.com](https://www.3blue1brown.com) for visual maths. Numberphile for curiosity. Watch one video a week and write a paragraph about what you learned.

6. **NRICH Problem-Solving**

Cambridge's own free problem-solving resource. The problems are pitched between A-level and STEP. Perfect bridge material.

Start here: nrich.maths.org. Work through the 'Upper Secondary' and 'Post-16' collections. Quality over quantity.

7. **A Deep-Dive Maths Investigation**

Pick one area of mathematics and spend three months exploring it. Number theory, graph theory, cryptography, chaos. Admissions tutors want intellectual growth, not a reading list.

Start here: Choose something that interests you. Read one paper or book chapter on it. Try to solve an open-ended problem. Write up what you found.

8. **Free Online Courses**

MIT OpenCourseWare offers real university-level maths for free. Brilliant.org builds problem-solving intuition through interactive exercises.

Start here: ocw.mit.edu for lecture courses. brilliant.org for interactive problem-solving. Complete one full course, not three halves.

the activities (continued):

9. Attend Public Maths Lectures

Gresham College in London runs free public lectures on mathematics. The Royal Institution has maths events. These give you material no other applicant has.

Start here: gresham.ac.uk for free London lectures. Also check your target university's public lecture series.

10. Maths Competitions Beyond UKMT

The Mathematical Olympiad for Girls (MOG), UK Senior Kangaroo, and international competitions like the Intermediate Mathematical Olympiad all strengthen an application.

Start here: Full list at ukmt.org.uk/competitions. Enter everything your school offers. Reflection on what you learned matters more than medals.

11. Tutor Maths to Younger Students

Teaching deepens your own understanding and shows leadership. It also gives you concrete personal statement material.

Start here: Run a maths club at school, volunteer with ukmt.org.uk mentoring programmes, or tutor a younger student one-to-one.

12. University Summer Schools & Taster Days

The 'Why this university?' interview question needs a specific answer. Attending a taster day gives you one.

Start here: Check the maths department websites of your target universities from Year 11 onwards. [Cambridge STEP preparation course](#) is particularly well-regarded.

Pick 2-3. Go deep, not wide. Quality over quantity.

Need a personalised plan for your child?

Whether it's GCSE planning, A-level choices, university applications, or supercurricular strategy, I can help you build a clear plan for your child's next step.

Book a 1:1 Education Advice Call. 30 minutes. Your specific situation. A clear plan forward.

This guide shows what to do. The Maths Requirements Cheat Sheet shows where to apply. Grades, offer rates, STEP/TMUA requirements for 17+ universities.

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£50 / 30 minutes / book this week

Find your child's actual matches (free, grade-matched) at

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