12 supercurriculars that strengthen your child's Engineering application.

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

@EduStrategyCaroline

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 Maths Challenges

Engineering degrees are mathematically intensive. UKMT proves your child can handle the maths, and it is valued by admissions tutors at every top engineering school.

Start here: Enter via school or register at ukmt.org.uk. Start with the Intermediate Challenge in Year 9-11, progress to Senior in Year 12.

2. ESAT Preparation

The Engineering and Science Admissions Test is required by Cambridge, Imperial, UCL, and Durham for engineering. It replaced the old subject-specific tests.

Start here: Register and find past papers at esat-tmua.ac.uk. Engineering applicants need Maths 1 + Maths 2 + Physics. Start prep in summer of Year 12.

3. British Physics Olympiad (BPhO)

Engineering is applied physics. BPhO shows you can think beyond the A-level syllabus and handle the kind of problem-solving engineering degrees demand.

Start here: Enter via school. Past papers and solutions at bpho.org.uk. Even attempting the problems builds the skills admissions tutors look for.

4. Build Something Real

A tangible project is the strongest personal statement evidence there is. It doesn't need to be complex. It needs to work and you need to explain what you learned building it.

Start here: Start with an Arduino kit (under £30). Build a sensor, a robot, or an automated system. Document it. The process matters more than the result.

the activities (continued):

5. Arkwright Engineering Scholarships

The most prestigious pre-university engineering award in the UK. Apply in Year 11, runs through sixth form. Includes mentoring, industry events, and university visits.

Start here: Applications open in Year 11. Details at smallpeicetrust.org.uk/arkwright. Even if you don't win, the application process forces you to articulate why engineering.

6. Smallpeice Trust Residential Courses

Free or funded multi-day engineering courses at UK universities. Hands-on projects, real labs, real engineers. Looks outstanding on a personal statement.

Start here: Browse courses at smallpeicetrust.org.uk/courses. Book early. The popular ones fill fast, especially summer residentials.

7. Read Engineering Books

Shows you understand what engineering actually is, not just what you think it is. J.E. Gordon's books are the gold standard for accessible structural engineering.

Start here: Structures by J.E. Gordon is the classic. Also: The New Science of Strong Materials. Both are short, readable, and admissions tutors know them.

8. Learn CAD or Programming

Top engineering courses increasingly expect digital literacy from day one. Fusion 360 is free for students. Python is used everywhere in engineering.

Start here: Fusion 360 (free for students) for CAD. Python via freeCodeCamp or Codecademy for programming. Build one small project in each.

the activities (continued):

9. Engineering Work Experience

Even informal work experience matters. A day shadowing a civil engineer on site gives you more personal statement material than a week of reading about it.

Start here: Browse virtual and in-person engineering events at uptree.co. Also email local engineering firms directly or check your parents' networks. One day is enough if you reflect on it properly.

10. Free Online Courses

MIT OpenCourseWare and Khan Academy offer real engineering content for free. Complete one course, not three introductions.

Start here: ocw.mit.edu for university-level. Khan Academy for foundations. Focus on one area: structures, electronics, or thermodynamics.

11. Lead a STEM Club or Engineering Society

Admissions tutors value initiative. If your school has a STEM club, lead it. If it doesn't, start one.

Start here: Propose it to your Head of Physics or DT. Organise one build project or speaker per half-term. Document what you did and what you learned.

12. University Taster Days

The 'Why this university?' question needs a specific answer. Engineering taster days let you compare lab facilities, project styles, and teaching approaches.

Start here: Browse engineering taster days at unitasterdays.com. Check from Year 11 onwards. Apply early.

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

Want the full requirements data?

This guide shows what to do. The Engineering Requirements Bundle shows where to apply. 3 cheat sheets covering Mechanical, Electrical, and Chemical Engineering.

uniplan.me/shop/engineering

Need a personalised plan?

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£50 / 30 minutes / book this week

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uniplan.me/courses

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