

STEM Pathways

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POST 16 QUALIFICATIONS

	Style of Teaching	Assessments	Subject Choice	Typically Leads to
A Levels	Classroom but students are often encouraged to do 1-2 weeks of work experience	Mostly exams, some coursework or practical work	Study 3-4 subjects	University. Accepted at all UK Universities. Some subjects not widely accepted (eg. General Studies)
International Baccalaureate	Classroom + an element of community work or a physical or creative activity	Exams & coursework	Study 6 subjects	University. Accepted at all UK universities and widely recognised internationally.
BTECs	Classroom but with a focus on skills relevant to the workplace	Coursework	Study 1 – 3 subjects. 250 to choose from	Employment, higher apprenticeship, university. Not all BTECs are accepted at all universities
T Levels	80% classroom , 20% work placement of 315 hours	Hasn't been confirmed yet	Study 1 from a choice of 3: Digital production, design & development, Surveying and Planning Education More subjects from Sept 2021	Employment, higher apprenticeship, university. Not all universities are likely to accept T Levels
Apprenticeships	80% on the job , 20% classroom .	End point assessment of skills and capabilities	Study 1 area. 280 to choose from.	Employment or a higher apprenticeship

A LEVEL SUBJECTS

- Topics covered and number of assessments may vary slightly depending on which exam board's curriculum your school or college follows.
- Not all subjects are offered at all colleges and schools

	Topics covered	Assessment
BIOLOGY	Cells, genetics, energy transfers, organisms	3 Exams 12 practicals Grade is based on exams. Practical endorsement is additional.
CHEMISTRY	Physical (structures, bonds), organic and inorganic	3 Exams 12 practicals Grade is based on exams. Practical endorsement is additional.
PHYSICS	Forces, electrons, waves, photons, astrophysics, particles, medical physics.	3 Exams 12 practicals Grade is based on exams. Practical endorsement is additional.
MATHS	Pure maths (algebra, trigonometry, numerical methods etc), statistics, mechanics	3 exams
FURTHER MATHS	More pure maths plus options of: mechanics, statistics or decision	4 exams
PSYCHOLOGY	Social, cognitive, behavioural, biological, developmental, psychopathology + optional modules that teachers choose	3 exams
COMPUTER SCIENCE	Programming, theory, computer systems, algorithms	2 exams (80% of mark) 1 coursework project (20% of mark)
GEOLOGY	Tectonics, interpreting the past, economic geology, petrology, geohazards	3 Exams 12 practicals Grade is based on exams. Practical endorsement is additional.
ENVIRONMENTAL SCIENCE	Living and physical environment, pollution, sustainability, energy and biological resources	2 exams
DESIGN TECHNOLOGY	Technical and design and making principles	2 exams (50% of mark) Design and make coursework project (50% of mark)

CHOOSING YOUR SUBJECTS

Write down the 3 subjects you are currently best at	1	
	2	
	3	
Write down your 3 favourite subjects	1	
	2	
	3	
Look up subjects offered at your local college, write down any subjects that you have never studied but sound interesting to you		
Look up 3 university courses that you might be interested in, or the same course at 3 different universities. Write down any subjects that are required or preferred for the course	1	A
		B
		C
	2	A
		B
		C
	3	A
		B
		C

Circle any subjects that you have written down three or more times

Circle any subjects there that you are disappointed you haven't circled.

- This is just a starting point for which subjects to consider, there's no formula for choosing.
- If you're set on a university course, opt for the subjects that will get you there. If not, you might want to focus on your best subjects to give yourself a head start in achieving top grades

[Click here](#) to view our video on making A Level decisions.

[Click here](#) to explore our **"Where could your A Levels take you?"** Resource. This will give you an insight into the different university courses that specific A Levels may lead on to. It covers all the most common A Levels, not just STEM.

WHAT IF QUESTIONS

What if I pick my subjects/course then realise I don't like them or change my mind?

Most colleges, schools and even universities will allow you to change courses early on, as long as you haven't missed too much and there is space on the course you want to change to.

What if I decide toward the end of sixth form that I want to go to university but I haven't done the right subjects for the course?

Check the course at **different universities**, not all require the same subjects. For example, Newcastle University doesn't require specific subjects for Medicine whereas most other universities require chemistry and biology.

Otherwise look for **foundation courses** which add an extra year at the beginning of the course to catch you up on the A Level subject content required.

What if I decide I want to go to university after doing an apprenticeship or BTECs but it isn't accepted?

In this case you can do an access course. Double check with the universities that you're considering first to see which access courses they accept for the course you want to do.

DECISION TREE

