Bullers Wood School for Boys

Design & Technology

Key Stage 3 | Years 7-9

Our aim

To equip boys to design, make and evaluate solutions to real problems, applying technical knowledge, creativity and an understanding of materials, manufacturing and sustainability. The Engineering Vocational Award offers an applied route at Key Stage 4.

Students design and make a product in each roughly ten-week rotation, learning about materials, tools and machinery, CAD and technical drawing – working safely in the workshop throughout.

	Year 7	Year 8	Year 9
Project 1	**PAPER & BOARD** **Maze game**	**POLYMERS** **Bauhaus clock** Sources, properties and stock forms of plastics	**MECHANISMS** **Tin can car** Linkages, gears, pulleys and belts
Project 2	**TEXTILES** **Textile keyring** Sewing, quilting and surface treatments	**METALS** **Pewter keyring** Metal properties, techniques and finishes	**ENGINEERING** **Flight** Aerodynamics and propulsion
Project 3	**WOOD** **Desk tidy** Timber manufacturing and hand tools	**STRUCTURES** **Bridge project** Compression, tension, bending, torsion and shear	**WOOD & TIMBERS** **Treasure chest** Sources, properties and stock forms

How work is assessed

Design	Make	Evaluate
Research, sketching and CAD	Craftsmanship and safe use of tools	Judging the product against its specification

Checking progress

- Retrieval quizzes most lessons
- An end-of-topic assessment each rotation

Homework

- Every two weeks, around 30 minutes – retrieval practice with knowledge organisers.

Help at home

- 10–15 minutes a week reviewing notes
- The Design and Technology Site for extra practice
- DT Club on Wednesdays

Bullers Wood School for Boys

Design & Technology Engineering

Key Stage 4 | Years 10-11

Two routes for students who love designing and making: a GCSE in product design, or a hands-on vocational award in engineering. Both mix practical coursework with a written exam.

GCSE Design & Technology (Product Design) - Eduqas

What you study	How it is assessed	
Solving real problems by designing and making products, and the historical, social, cultural, environmental and economic factors that shape design.	**Unit 1: Design and technology in the 21st century** written exam, 2 hrs	**50%**
	Unit 2: Design and make task · about 35 hours of coursework to an exam-board brief	**50%**

Engineering Level 1/2 Vocational Award - Eduqas

What you study	How it is assessed	
Practical skills with engineering tools and processes, adapting and improving designs, and how engineering shapes modern life at home, at work and in society. Suits students interested in the engineering sector who want hands-on skills alongside problem-solving.	**Unit 1: Manufacturing engineering products** 20-hr controlled assessment	**40%**
	Unit 2: Designing engineering products 10-hr controlled assessment	**20%**
	Unit 3: Solving engineering problems written exam, 1 hr 30	**40%**

What success looks like

Organised coursework that keeps pace with deadlines, careful and safe practical work, and clear written evaluation. Both courses build on the Key Stage 3 rotations in materials, mechanisms and structures.