



Edgbarrow School
Year 10
Design & Technology – Engineering



Curriculum Intent

At KS4 D&T aims to develop mindful confident students who have excellent practical skills, technical knowledge and are equipped to succeed in the next step of their educational path.

○ What am I studying this year and how and when will I be assessed?

Project	Knowledge & Skills	Assessment	Homework
Headphone wrap	Accuracy when marking out, Using working drawings, Hand tool skills, Pillar drill safe use	End of project assessment using the exam board acceptable levels of tolerance in manufacturing - self & teacher-assessed	Homework is set at key points through each project to further develop understanding. Students are also expected to be revising theory topics each week after a new topic has been covered.
Fossil hammer	Accuracy when marking out, Using working drawings, Hand tool skills, Pillar drill safe use. Centre lathe use	End of project assessment using the exam board acceptable levels of tolerance in manufacturing – peer & teacher-assessed	
Knurled tube	Accuracy when marking out, Using working drawings, Vacuum forming, centre lathe use	End of project assessment using the exam board acceptable levels of tolerance in manufacturing – self-assessed	
Wall holder	Accuracy when marking out, Using working drawings, Line bending, JIG manufacture, centre lathe use	End of project assessment using the exam board acceptable levels of tolerance in manufacturing – peer-assessed	
Toast rack	Accuracy when marking out, Using working drawings, Tapping & threading	End of project assessment using the exam board acceptable levels of tolerance in manufacturing – self-assessed	
Theory	See below	Each week an online mini-test of previous week's theory	

Metals, polymers, material stock forms, material properties, composites, smart materials, orthographic drawing, sustainability, electronics, effects of engineering, testing of materials, CAD & CAM, isometric drawing, maths in engineering, scale drawing, plastic forming, metal forming, material finishes, joining techniques, heat treatment of metals, workshop processes, drawing conventions.

- As you will be sitting your Engineering theory exam in Year 10 (approx. May) you will have four mock exams (October, December, February and March)
- The weekly mini-tests are used to identify areas of improvement for you to help you plan/target your own revision for your engineering theory exam.
- Practical projects are assessed using the exam board's guide on acceptable levels of tolerance when manufacturing projects and are teacher, self, peer or a combination of these assessed.

Marking for Literacy

(Longer answers and written work will be marked for at least one of the below, your teachers will tell you which)

Sp – Spelling mistake of key term

// - Needed new paragraph

C – Capital letter missing

P – Punctuation needed

Expr – Expression

Subject Specific Literacy:
see separate document

Students will demonstrate pride in their work by:

- Presenting information clearly and neatly to aid learning
- Using a title and date for all work including homework
- Underlining all dates and titles using a ruler
- Writing in blue or black pen
- Completing drawings and diagrams in pencil
- Glue in sheets flat and in order
- Annotating work and making corrections in coloured pens
- Crossing out mistakes neatly with a line
- Highlighting key words and concepts