

Curriculum Information Bramcote College

Year Group: 11

Subject: Technology – Engineering (OCR Cambridge Nationals in Engineering Design)

Objectives/purpose	<p>To learn how to use materials to create a prototype</p> <p>To learn about PPE and Risk Assessments</p> <p>To learn how to plan manufacturing</p> <p>To learn how to produce technical drawings for a given object</p> <p>To learn how to use CAD/CAM to produce a product to given data</p>
Autumn Term	<p>Pupils are to look at metal work techniques and are to reproduce a depth gauge. This involved brazing.</p> <p>Pupils look at production planning, which involves process, material, equipment, and H&S. They have to interpret a working drawing, learn metal work techniques and are to reproduce a depth gauge. This involves silver soldering and centre lathe work.</p> <p>R105 Exam Content</p>
Spring Term	<p>Unit R108 – Lawn mower project. Pupils are to draw up a lawn mower handle to the exact specification on paper, then model this handle to exact size out of various materials. Pupils then have to draw the handle using both 2 and 3D drawing packages. Pupils will need to output this lawn mower handle using the 3D printers.</p>
Summer Term	<p>R105 – Exam Preparation and revision</p>
How is progress measured?	<p>Students take 4 units each worth 25% of the final grade. Three are assessed by coursework and one is assessed by exam.</p> <p>Work is assessed in accordance with the mark scheme for this course.</p> <p>Students preparing for an exam will complete various past exam questions that will be teacher and peer assessed.</p> <p>Photographic evidence of skills</p> <p>Checking and marking portfolio</p>
How is the subject externally examined? (KS4 and KS5)	<p>25% of the course has an external examinable unit, this is to be taken at the end of the course. The other 75% is coursework.</p>
Extending Learning at home	<p>Pupils will be issued with revision guides to assist them with their examinable unit. They will also be using knowledge organisers.</p>
Support Available	<p>Support is available by emailing class teacher outside of lessons.</p>

Useful web addresses and book resources/revision guides	www.technologystudent.com www.bbcbitessize.com www.ocr.org.uk/qualifications/cambridge-nationals/engineering-design-level-1-2-award-certificate-j831-j841/

Date reviewed: