

CTEC Engineering

Part A - Bridging Work Task

A fantastic opportunity to get a headstart in your Coursework as you prepare for enrolment and for starting at Franklin in September.

The work will take you around **3 hours** so plan your time to best suit you.

How do I complete and submit my task?	<p>Complete the tasks digitally or on paper/handwritten and bring either a paper copy or electronically to your enrolment appointment.</p> <p>Please also take this to your first lesson in September.</p>
Introduction to your Bridging Task	<p>Maths skills for Engineering</p> <p>The task below will help us gauge your current understanding of the mathematical techniques from GCSE Maths that you'll use in Engineering, both in the examined units in January and for many assignments throughout the course.</p> <p>Materials</p> <p>In Unit 11 of the course, we look into material properties and how these properties relate to their uses in a variety of Engineering scenarios. In the task below you will look at some key material properties definitions and examples of when these properties are important.</p> <p>Part of this bridging work will contribute to your first coursework unit</p>
Task details	<p>Please click on this link to get the instructions for the work.</p> <p>2026 Engineering Bridging Work.docx - Google Docs</p> <p>If you are completing this on your computer click File ---> Make a copy</p> <p>If you were in the Taster session, you will have been given a paper copy.</p> <p>See resources section above for resources to help you with the task.</p>
Resources to help you with the Bridging Task	<p>These are the resources you will need for the bridging task in the section further down this document.</p> <p>Maths for Engineering: You will need a scientific calculator and possibly your notes from GCSE Maths.</p> <p>This video may also help: https://www.youtube.com/watch?v=ayjtBJ0UcqE</p> <p>Here are some useful website links:</p>

	<p>https://www.cyberphysics.co.uk/general_pages/si_prefixes.html https://www.bbc.co.uk/bitesize/guides/zgbggk7/revision/4 https://www.mathsisfun.com/algebra/trigonometry.html</p> <p>For the Materials task the following links may be helpful</p> <p>Video: https://www.youtube.com/watch?v=BHZALtqAjeM Weblink: Material Properties (the-warren.org)</p>
Extension Tasks	
Extension Tasks to stretch and challenge you	See the MOOCs section below.
Massive Open Online Courses (MOOCs)	<p>MOOCs are Massive Open On-line Courses</p> <p>You might enrol and complete the following to push you a little further (this is optional).</p> <p>This is a great course to help you get ready for learning at level 3!</p> <p>https://www.coursera.org/learn/learning-how-to-learn-youth</p>

CTECH Engineering

Part B – Preparing for Studying at Franklin

A fantastic opportunity to widen your understanding of the course.

Examining Board and Specification	<p>Cambridge Technicals - Engineering - OCR</p> <p>You will be studying the following units:</p> <ul style="list-style-type: none"> Unit 1 Mathematics for Engineering Unit 2 Science for Engineering Unit 3 Principles of Mechanical Engineering Unit 4 Principles of Electrical and Electronic Engineering Unit 5 Electronic and Electrical Design Unit 6 Circuit simulation and manufacture Unit 8 Electrical Operations Unit 10 Computer aided design (CAD) Unit 11 Material Science Unit 12 Mechanical Simulation and Modelling Unit 16 Systems and Programming Unit 22 Engineering and the Environment
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Preparing for the course	If you have completed foundation maths at school there will be some parts of higher maths that you will be building on during this course, its recommended that you use the BBC bitesize links (or other website) to have a look at some of this maths to help you.