

BTEC Engineering KS4 2019/20

Year 10.

Autumn 

Spring 

Summer 

<p>Component 1A: Exploring Engineering Sectors</p> <p>Engineering sectors and links</p> <p>Careers in engineering</p> <p>Qualifications required</p> <p>Researching potential pathways</p>	<ul style="list-style-type: none"> • Research into careers • Subject Knowledge • Realising links • Consideration of qualifications <p>Deadline 4th October</p>
<p>Component 1B: Exploring Design Applications</p> <p>Project: Mobile Phone Prototype</p> <p>Designing and producing Prototypes</p> <p>Using 2D Design and Sketch up to enhance drawings.</p> <p>Developing and Proposing a solution</p>	<ul style="list-style-type: none"> • Design Brief • Product Analysis • Specification • CAD and CAM • Modelling <p>Deadline 7th December</p>
<p>Mock Exam Preparation</p>	<ul style="list-style-type: none"> • Tolerance • Data recording • Processes • Manufacturing • Logistics • Environmental; impacts, considerations, replace, repair. Carbon footprints.
<p>Component 1A: Product sectors and Organisations</p> <p>Project: Company Comparison</p> <p>Research manufactured components</p> <p>How do sectors combine to manufacture engineered products.</p>	<ul style="list-style-type: none"> • How to do company's interrelate • Sizes and locations of companies • Economies of scale • Materials and logistics • Manufacturing methods <p>Deadline 12th March</p>

<p>Component 2A: Understanding materials, components and processes. Booklet</p> <p>Materials and proprietary components Engineering Processes</p>	<ul style="list-style-type: none"> • Table of components • Advantages disadvantages • Material qualities • Methods
<p>Component 2B: Understanding and disassembling components for an engineered product. Project: Bike Brake Dissassembly</p> <p>Materials and proprietary components Engineering Processes</p>	<ul style="list-style-type: none"> • Using existing products to design • Recording dimensions • Using Tools <p>Deadline 12th March</p>
<p>Component 2C: Manufacture and reproduce and engineered component. Project: Multi Tool Practical</p>	<ul style="list-style-type: none"> • Production Plan • H&S • Equipment and tools • Materials <p>Deadline 17th July</p>

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<p>Component 2C: Manufacture and reproduce and engineered component. Multi Tool Practical Project</p>	<ul style="list-style-type: none"> • Production Plan • H&S • Equipment and tools • Materials
<p>Exam Preparation</p> <p>Practice Papers Practice Practical Completing data</p>	<ul style="list-style-type: none"> • Tolerance • Data recording • Processes • Manufacturing • Logistics • Environmental; impacts
<p>Exam Preparation</p> <p>Practical Exam – WB 3rd Feb Theory Exam – 7th Feb</p>	<ul style="list-style-type: none"> • Tolerance • Data recording • Processes • Manufacturing • Logistics • Environmental; impacts
<p>Component 2B: Understanding and disassembling components for an engineered product. Bike Brake Disassembly</p> <p>Materials and proprietary components Engineering Processes Revisiting project to improve grade.</p>	<ul style="list-style-type: none"> • Using existing products to design • Recording dimensions • Using Tools <p>Project Deadline 1st March</p>
<p>Planning for the Future</p> <p>Research into FE Choices of sectors Contact engineers for advice Applications for FE Visits to FE University or apprenticeships</p>	<ul style="list-style-type: none"> • Using research to plan career • Choices to be made • Information analysed effectively