Bishop Heber High School

Subject	Year	Term
BTEC Engineering	10	3

Topic

Component 1 & 2

Content (Intent)

Prior Learning (Topic) Component 1

During the first half of this term component 1 will be completed and the second half of the term will focus on component 2
Component 2 includes a product disassembly and develop their practical ability ready for Component 2C where students will have to manufacture a product based upon an engineering drawing.

Future Learning (Topic) Component 2 & 3

What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)
Component 1: Exploring Engineering Sectors and Design Applications **Learning Aim B**: Explore engineering skills through the design process. All students will continue to develop a complex project designing and making a multi-tool. Students will complete practical work and support documents to be successful in these assignments.	Component 1 will continue to be internally assessed as each portfolio assignment and all practical tasks are completed.
Component 2: Investigating an Engineering Project **Learning Aim A**: Understand materials, components and processes for a given engineered product by disassembly and primary investigation into the manufacture and assembly of the significant component parts. **Learning Aim A & B:** Students will also gain knowledge and understanding of materials and their working properties relevant to the Engineering world, both theoretically and in practical terms with Focused Practical Tasks developing skills using a number of machines and processes such as Milling Machine, Centre Lathes, Laser Cutter and 3D Printers.	Component 2 Learning Aim A will be internally assessed again as their portfolios develop. Component 2 Learning Aim B will also be internally assessed with photographic evidence, teacher witness statements and student evaluations as the focused tasks develop.

How can parents help at home?

You can support your child by discussing the coursework with them, allowing them to develop their portfolios at home and encouraging the students to have an aspirational attitude to their work.

Helpful further reading/discussion (including Reading and Vocabulary Lists)

Reading

BTEC Tech Award Engineering Student Guide.
Model Engineer Magazine
Technologystudent.com /materials and processes

Vocabulary Lists

Risk Assessments
Task Sheets
Job Sheets
Technical Plans
Technical Drawings
Design Proposals
Collaboration
Innovation
Resilience
Independence
Materials & Properties
Ferrous
Non-Ferrous
Pure
Alloy
Composite
Torque
Fatigue
Toughness
Hardness
Strength
Machining
Centre Lathe
Milling Machine
Pillar Drill
Guillotine