

KS4 CURRICULUM: RESISTANT MATERIALS (YEAR 11)

Overview

In Resistant Materials you will learn about:

- Core design and technology principles with some emphasis on maths and science skills
- In-depth knowledge of how different materials and manufacturing processes are used to design and make products
- Non-examination Assessment - Design and manufacture a product which reflects the contextual challenge and meets the needs of a chosen stakeholder.

	Focus / Topic	Knowledge & Skills	Assessment
Autumn 1	Contextual challenge: Design Thinking	<ul style="list-style-type: none"> • Specification • Initial Ideas • Review of initial ideas 	<ul style="list-style-type: none"> • Maths formative assessment homework on Google classroom • Initial ideas deadline: 27th September • Half Term Test on theory content covered (w/b 14th October 2019)
Autumn 2	Contextual challenge: Design Thinking	<ul style="list-style-type: none"> • Development of design ideas into a chosen design • Communication of design ideas • Review of chosen design • Design Proposal 	<ul style="list-style-type: none"> • Maths formative assessment homework on Google classroom • Design development deadline: 8th November • Design Proposal deadline: 29th November • PPE fortnight w/ 2nd December 2019
Spring 1	Contextual challenge: Create	Manufacture <ul style="list-style-type: none"> • Selection of materials • Skills and processes • Quality control and quality assurance 	<ul style="list-style-type: none"> • Maths formative assessment test on Google classroom • Final Prototype deadline: 14th February • Half Term Test on theory content (w/b 10th February 2020)
Spring 2	Contextual challenge Evaluate	Testing and Evaluation	<ul style="list-style-type: none"> • Maths formative assessment homework on Google classroom • Evaluate deadline: 20th March • Completed final project (with corrections): 3rd April Assessment week (w/b 14 th Mar 2020)
Summer 1	Exam	Revision techniques	Final GCSE Exam (May 2020)
Summer 2	Study leave	Study leave	Study leave

Further Information

- Exam board: OCR J310
- Component 1 (J310/01): Written paper (100 Marks – 2 Hours) (50% of GCSE 9-1)
- Component 2 (J310/02): Iterative Design Challenge – Non-exam Assessment (100 Marks - Approx. 40 hours) (50% of GCSE 9-1)