



PLUME ACADEMY - LEARNING OVERVIEW

Year	11
Course	Design & Technology – Resistant Materials
Specification Number/Exam Board	8775 AQA
End of course assessment and weightings	50% NEA 50% Exam

Prior Learning

The subject builds on your child's Key Stage 3 experience in Resistant Materials by Learners would have covered a range of skills during KS3 exploring a range of skills such as Researching, Planning, Designing, Manufacturing and Evaluative skills. These skills would have resulted in the production of a finished product. During Year 10 students would focus on theory-based lessons alongside practical based projects. This combination of theory and practical will set up learns for their NEA task.

Curriculum Intent – What are the curriculum aims?

- Work collaboratively to develop and refine their ideas, responding to feedback from users, peers and expert practitioners.
- Gain an insight into the creative, engineering and/or manufacturing industries
- Develop the capacity to think creatively, innovatively and critically through focused research and the exploration of design opportunities arising from the needs, wants and values of users and clients
- Develop knowledge and experience of real world contexts for design and technological activity.
- Develop an in-depth knowledge and understanding of materials, components and processes associated with the creation of products that can be tested and evaluated in use
- Be able to make informed design decisions through an in-depth understanding of the management and development of taking a design through to a prototype/product
- Be able to create and analyse a design concept and use a range of skills
- Be able to work safely and skillfully to produce high-quality prototypes/products
- Develop the ability to draw on and apply a range of skills and knowledge

Curriculum Implementation – What will my child be learning?

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 11	NEA	NEA	NEA	Maths in DT	Revision	
				New and emerging technologies	Making principles	



Term 1	Half Term 1	AO1 Section A: Identify and investigate design possibilities AO1 Section B: Producing a design brief and specification
	Half Term 2	AO2 Section C: Generating design ideas AO2 Section D: Development of design ideas AO2 Section E: Realising design ideas
Term 2	Half Term 3	AO2 Section E: Realising design ideas – Continued, this element is their practical part of their NEA.
	Half Term 4	AO2 Section E: Realising design ideas AO3 Section F: Analysing and evaluating Exam Preparation
Term 3	Half Term 5	Exam Preparation
	Half Term 6	Exam Preparation

Curriculum Impact – How will progress be assessed as I learn?

<p>NEA – Total 100 marks</p> <p>AO1 Section A: Identify and investigate design possibilities (10 marks) AO1 Section B: Producing a design brief and specification (10 marks) AO2 Section C: Generating design ideas (20 marks) AO2 Section D: Development of design ideas (20 marks) AO2 Section E: Realising design ideas (20 marks) AO3 Section F: Analysing and evaluating (20 marks)</p> <p>Exam – Total 100 marks</p> <p>Section A – Core technical principles (20 marks) A mixture of multiple choice and short answer questions assessing a breadth of technical knowledge and understanding. Section B – Specialist technical principles (30 marks) Several short answer questions (2–5 marks) and one extended response to assess a more in depth knowledge of technical principles. Section C – Designing and making principles (50 marks) A mixture of short answer and extended response questions.</p>
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Super-Curricular Opportunities – Support and Extending Learning

Useful study resources	If a student is really passionate about this subject...	As a parent/carer, I can assist my child in this subject by:
Technology Student - http://www.technologystudent.com/ BBC Bitesize - https://www.bbc.co.uk/bitesize/subjects Seneca - https://www.senecalearning.com/ Number Phile - https://www.numberphile.com/ Fusion 360 - https://www.youtube.com/user/AutodeskFusion360	Watch an episode of The Gadget Show https://www.channel5.com/show/the-gadget-show/ Enter the Design Ventura Competition https://ventura.designmuseum.org/ Design a display for a notable product or designer of interest. Visit the Olympic Stadium in Stratford and find out about its construction. Listen to the femmes of STEM podcast.	<i>Topic – Toxicity of Woods – www.hse.com</i> <i>Topic – The British Plastic Federation – Plastipedia – www.bpf.com</i> <i>Topic – Institute of Materials, Minerals & Mining – www.iom3.org</i> <i>Topic – How Forces Make Things Stick – www.explainthatstuff.com/adhesives.html</i>