PLUME ACADEMY - LEARNING OVERVIEW

Year	12
Course	Product Design
Specification Number/Exam Board	7552-AQA
Examination Papers and Weighting	50% Non-Examined Assessment – 50% Exam

Prior Learning

The Year 12 Product Design curriculum builds on prior learning by continuing to offer students the opportunity to build their designing and manufacturing skills.

Curriculum Intent – What are the curriculum aims?

Teaching and learning is based on four sessions per week. The three components that make up the A-level qualification, Paper 1, Paper 2 and the non-exam assessment (NEA), should be allocated appropriate teaching sessions to reflect their weighting allocations: 50% NEA, 50% written exams. This scheme of work is structured to enable teachers to focus on content that will prepare students for assessment at the end of year 2.

Students should be expected to develop the following skills - Research and investigation into target user, existing products, materials, manufacturing methods, joining methods, design movements, iterative design processes, development of designs, manufacturing and modelling methods, review and evaluation skills.

Curriculum Implementation – What will my child will be learning?

Term 1	Half Term 1	Theory - Technical Principles, NEA Section A: Identify and Investigate Design Possibilities (16 marks) Section D: Development of Design Prototypes (20 marks)
	Half Term 2	Theory - Technical principles, NEA Section B: Producing a Design Brief and Specification (8 marks) Section C: Development of Design Proposal- (20 marks)
Term 2	Half Term 3	Theory - Technical Principles, NEA Section C: Development of Design Proposal- (20 marks)
	Half Term 4	Theory – Designing and Making Principles, NEA Section E: Analysing and Evaluating (16 marks)
Term 3	Half Term 5	Theory – Designing and Making Principles, Exam Preparation
	Half Term 6	Theory – Designing and Making Principles & Technical principles.

Curriculum Impact – How will my child be assessed and receive feedback?

Paper 1 – Technical principles - Written exam: 2 hours and 30 minutes
120 marks – 30% of A-level
Mixture of short answer and extended response.
Paper 2 - Designing and making principles - Written exam: 1 hour and 30 minutes
80 marks - 20% of A-level
Mixture of short answer and extended response questions.
Section A:
Product Analysis: 30 marks
Up to 6 short answer questions based on visual stimulus of product(s).
Section B:
Commercial manufacture: 50 marks
Mixture of short and extended response questions
% worth of question in relation to paper as a whole: 50%
NEA Yr 12
NEA Practical application of technical principles, designing and making principles.
Substantial design and make project.
80 marks.
Assessment Objectives (and weighting):50% of A level
4.5.1 Section A: Identify and investigate design possibilities (16 marks)
4.5.2 Section B: Producing a design brief and specification (8 marks)
4.5.3 Section C: Development of design proposal- (20 marks)
4.5.4 Section D: Development of design prototypes (20 marks)
4.5.5 Section E: Analysing and evaluating (16 marks)

Super-Curricular Opportunities – Supporting and Extending Learning

Useful study resources	If a student is really passionate about this subject they can...
Technology Student - http://www.technologystudent.com/ BBC Bitesize - https://www.bbc.co.uk/bitesize/subjects/zvg4d2p Seneca - https://www.senecalearning.com/ Number Phile - https://www.numberphile.com/ Engineer Guy - https://www.youtube.com/user/engineerguyvideo Fusion 360 - https://www.youtube.com/user/AutodeskFusion360	• *Topic – Non-Destructive Testing – www.trainingndt.com* • *Topic – Articles on Materials – www.azom.com* • *Topic – Starch Based Products – www.earthpac.co.nz/Earthpac* • *Topic – Toxicity Of Woods – www.hse* • *Topic – The British Plastic Federation – Plastipedia – www.bpf.com* • *Topic – Institute of Materials, Minerals & Mining – www.iom3.org* • *Topic – How Forces Make Things Stick – www.explainthatstuff.com/adhesives.html*