



CURIOSITY

COMPASSION

COURAGE



## Academic outline 2023-24

	Subject- DT (KS5 DT- AQA A 'Level Product design/ BTEC L3 Engineering)					
	Term 1 Aug-Oct	Term 2 Nov-Dec	Term 3 Jan-Feb	Term 4 Mar-Apr	Term 5 Apr-May	Term 6 Jun-Jul
Year 12 A Level Product design AQA	1.1.-1.5 Materials and their performance Techniques, finishes and processing materials  KLT 1 Unit Review	1.1.-1.5 Materials and their performance Techniques, finishes and processing materials  KLT 2 Unit Review	Emerging technologies affecting design industry. 1.8 The requirements for product design & development 1.9 Health & Safety 1.10 Protecting designs and intellectual property 1.12 Feasibility 1.13 Enterprise  Year 12 PPE – Jan KLT3 Unit review	Design methods and processes  1.14 Design communication CAD - Drawing  KLT 4 Unit Review	2.5 Critical analysis evaluation CAD – SolidWorks  Introduction to A level NEA	2.5 Critical analysis evaluation  Contextual challenges finalised – A Level NEA Section A – Identifying & Investigating design possibilities (20 Marks)  KLT 5 Unit Review
Year 13 A Level Product design AQA	2.1 Design methods and processes 2.3 New technology 2.6 Selecting appropriate tools, equipment & resources 2.7 Accuracy in design & manufacture Section B - Finalising a design	2.2 Design Theory 2.3 Culture change 2.4 Design processes  (Improvements to section C) Design development - proposals (25 Marks) Write up of work completed	2.5 Critical analysis evaluation 2.8 Responsible design 2.9 Design and manufacture for project management 2.10 National and international standards in product design Improvement and refinement of part A of section D. Write up of section D	4.4 Maths in PD Number & percentages Ratios Calculating surface area and volume Combining forms Comparing weights using density Area and volume scale factors Trigonometry Construction, use of analysis charts and graphs	Submission of Section E – Analysis & Evaluation  Final submission of NEA 26/04/24  Revision for Paper 1 & 2 Designing principles & technical principles	N/A



## CURIOSITY

## COMPASSION

## COURAGE



	brief and specification Deadline 15 <sup>th</sup> Sept Section C – Development of design proposal (25 Marks) Deadline 20 <sup>th</sup> Oct		Design development – prototypes (25 marks) Development of final design proposals Development of final 3D prototype	Co – Ordinates & geometry Statistics and probability  1.1-1.15 Revision of materials, manufacture, joining methods and finishes  Section E – Analysis and evaluation (20 Marks)  Improvements on Section C & D  Formal assessment on Paper 2 Technical principles		
Year 13: BTEC L3 Engineering Ext Cert	Unit 10 Computer aided design. Assignment A & B  Unit 3 - Exam unit Exam prep	Unit 10 Computer aided design. Assignment A&B  Unit 3 - Unit 3 - Exam unit Exam prep	Unit 10 Computer aided design. Assignment C  Unit 3 Exam prep- Unit 3 - Exam unit Mock Exam end of term	Unit 10 Computer aided design. Assignment C  Unit 3- Unit 3 - Exam unit Exam prep	Unit 3- Unit 3 - Exam unit Exam prep  Final Exam	N/A