PRODUCT DESIGN Year 13 Curriculum Overview

What is the Year 13 Product Design curriculum aiming to achieve?		
What do we want our Year 13 Product Design students to be like?	How are we building on prior learning?	How can parents/carers support their child's learning?
• Responsible for the coordination and management of their activities in order to meet deadlines • Apply and effectively communicate their reasoning for decisions taken • Show resilience in their application until high quality outcomes are achieved • Commitment to sustainable design, applying a cradle to grave approach	• Appreciation of the work of others • Proficient use of CAD modelling/constructing proposals • Highly competent in the use of CAM facilities within the department	• Visit centres promoting discussion such as design museums • Discuss feedback provided • Create a workspace that enables/promotes creativity • Function as a client for their NEA • Look at how products in the home are constructed and materials used

How are we organising the Year 13 Product Design curriculum?					
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1
Topics	Iterative design	Mock prep. Formal drawings	Examination preparation Iteration (NEA) Manufacturing (including skills log)		Product celebration Examination preparation
Threshold Concepts	Communication of sound creative manufacturing intentions	Consideration of their clients needs, wants, aspirations, values, social, cultural, economic & historical factors	Through an intellectual curiosity create outcomes that demonstrate innovation, enterprise, taking consider risks and collaboration with others		Develop an appropriate breadth and depth of knowledge and understanding at an Advanced Level
Skills	Creativity & imagination applying iterative design process	Develop and modify designs Manufacture prototypes	Opportunity to solve real world problems by designing and making products. Apply technical and practical expertise in the construction of an outstanding high-quality outcome.		Answer questions assessing knowledge and understanding of technical, designing and making principles along with their ability to analyse and evaluate wider issues in design and technology.
Enrichment within the curriculum	Visits to the Gordon Russell Design Museum, Broadway, Design Museum + V&A, London, Birmingham Design Festival, Digbeth, WJEC/Eduqas innovations exhibition, Cardiff, Worcester Bosch & Yamazaki Mazak.				
Cross curricular links	Mathematics – calculating values (converting units, percentages, scales, areas of shapes i.e., circles, and volumes) Physics – understanding properties of materials, energy generation and storage, smart materials Business Studies - industry and enterprise, investigation, primary and secondary data Geography - sustainability and the environment Art - the work of others				
Extra-curricular opportunities	Be a mentor supporting others participating in the Schools in F1, CREST Gold award through the Engineering Education Scheme and links with STEAM ambassadors				

What are the intended outcomes of the Year 13 Product Design curriculum?						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Opportunities to show progress (Assessments)	NEA – identifying and investigating design possibilities	Generating and developing design ideas	PPE	Manufacturing a prototype	Analysing and evaluating design decisions and prototypes	NEA and written examination
Impact on personal development (SMSC)	Within the product design curriculum students will explore the work of others (artists and designers including cultures) that could inspire their work further providing a context of design history movements. Belief that design boosts the emotional intelligence of those that experience it, giving them empathy exposing them to the ideas of others.					
Preparation for the next stage of education	A greater understanding of the responsibility of a designer requirement of working towards a truly sustainable world. Platform to progress successfully in higher education. Application and linking of other subjects such as science. Opportunities through visits to see application of learning and subject in an industrial context.					