



Year 11 Curriculum (KS4) Product Design

Term	Autumn1	Autumn 2	Spring 1	Spring 2	Summer 1
Focus	Controlled Assessment Task: Candidates in consultation with their teachers should choose one of the two Briefs set out by the exam board.				
Key Assessment Tasks	<ul style="list-style-type: none"> -Analysis of the Task 5 marks <i>Page 1</i> -Writing a Design Specification 5 marks <i>Page 2</i> -Generating Ideas 10 marks <i>Pages 3 & 4</i> 	<ul style="list-style-type: none"> -Developing and Modelling a Solution 25 marks <i>Pages 5 to 9</i> -Communicating the Final Solution 10 marks <i>Pages 10 & 11</i> -Planning the make 10 marks <i>Page 12</i> 	<ul style="list-style-type: none"> -Making the Product 90 marks -Evaluation of the Product 10 marks <i>Page 13</i> -Suggesting Improvements 10 marks <i>Page 14</i> 		
Assessment	<ul style="list-style-type: none"> -Candidates complete their CAT (a single design and make project). - Internal standardisation is undertaken before moderation -The CAT is assessed out of 180 marks using WJEC criteria -The written Exam in May is assessed out of 120 marks using the WJEC criteria. 				
Assessment Window	All coursework and making should have been completed by April.				
Independent Study/ Homework Required	<p style="text-align: center;"><u>Research :</u></p> <ul style="list-style-type: none"> -Mechanical components and devices. -Advantages and disadvantages of using CAD and CAM -Manufacturing processes. -Quality assurance and Quality control. 	<p style="text-align: center;"><u>Research :</u></p> <ul style="list-style-type: none"> -Product Designers -Smart Materials -The Design Process -The 6 R's of sustainability. -Life Cycle Analysis to determine environmental impact of a product -Product Life Cycle 	<p style="text-align: center;"><u>Research :</u></p> <ul style="list-style-type: none"> -Materials and their properties: Paper and boards, natural and manufactured timber, ferrous and non-ferrous metals, thermoforming and thermosetting polymers. -Tools and equipment and their use. 3D Rapid Prototyping. 		