

Subject Name: Design Engineering



Year 12	Subject Theme	Wider Reading/Independence
Autumn	<p>Exploring 2D and 3D drawing skills, develop knowledge of industry use of graphical communication</p> <p>Introduction to Design Engineering.</p> <p>Design context and links to existing product</p> <p>Challenge task used to develop communication</p> <p>Materials and material properties/qualities. Understand how factors influence material choice in Design Engineering</p> <p>CAM Project</p> <p>Machatronics and Smart Materials</p> <p>Health & Safety – Manipulating materials and production methods</p>	<p>Students to use sketch pad and note folder for keeping record of knowledge and development.</p> <p>They will have theory lessons within the main themes to build up on examination knowledge</p>
Spring	<p>Machatronics and Smart Materials-continued</p> <p>Mechatronic Test rig</p> <p>Health & Safety – Manipulating materials and production methods - continued</p> <p>Materials Science and structural integrity</p>	<p>Students need to keep a 2 working note books documenting the separate elements of the course as these will be taught alongside each other</p>
Summer	<p>Product Analysis and skills leading to the iterative design process</p> <p>Up- cycling Project</p>	
Key dates	<p>Provisional dates 2021</p> <p>21st Feb deadline for entries for Summer 2021</p> <p>15 May deadline for receipt of centre assessed marks Design and Technology: Design Engineering (A Level)</p> <p>H404/1 Principles of design engineering 1 h 30 min</p> <p>H404/2 Problem solving in design engineering 1 h 45 min</p>	<p>Wed 9 June am</p> <p>Thu 17 June am</p>

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Autumn	Iterative Design Project	
Spring		
Summer		

Key dates

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