

	Term 1	Term 2	Term 3	Term 4	Term 5	
Year 13	<p>Unit Title: NEA - Make</p> <p>Knowledge: Making a final prototype.</p> <p>Skills: Design and make prototypes that are fit for purpose.</p>	<p>Unit Title: NEA - Make & Evaluate</p> <p>Knowledge: Making a final prototype, evaluating own design and prototype.</p> <p>Skills: Analyse and evaluate design decisions and outcomes, including for prototypes made by themselves and others.</p>	<p>Unit Title: Exam Knowledge - Units 7-9</p> <p>Knowledge: Safe working practices, potential hazards and risk assessment, Features of manufacturing industries, Designing for maintenance and the cleaner environment.</p> <p>Skills: Demonstrate and apply knowledge and understanding of technical principles.</p>	<p>Unit Title: Exam Knowledge - Units 10-12</p> <p>Knowledge: Current legislation, Information handling, modelling and forward planning, Further processes and techniques.</p> <p>Skills: Demonstrate and apply knowledge and understanding of technical principles.</p>	<p>Unit Title: Revision</p> <p>Knowledge: All exam content.</p> <p>Skills: Recall, revise topics from previous years.</p>	
	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 12	<p>Unit Title: Introduction Project</p> <p>Knowledge: Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture.</p> <p>Skills: Demonstrate and apply knowledge and understanding of design and making principles.</p>	<p>Unit Title: Exam Knowledge - Units 1-3</p> <p>Knowledge: Materials, Performance characteristics of materials, processes, techniques and specialist tools</p> <p>Skills: Demonstrate and apply knowledge and understanding of technical principles.</p>	<p>Unit Title: NEA Investigate & Design</p> <p>Knowledge: Identifying and outlining possibilities for design, designing a prototype. Digital technologies, Factors influencing the development of products, Effects of technological developments.</p> <p>Skills: Identify, investigate and outline design possibilities to address needs and wants.</p>	<p>Unit Title: Exam Knowledge - Units 4-6</p> <p>Knowledge: Digital technologies, Factors influencing the development of products, Effects of technological developments.</p> <p>Skills: Demonstrate and apply knowledge and understanding of technical principles.</p>	<p>Unit Title: NEA - Design and Develop</p> <p>Knowledge: User-Centred Design Project All design and technological practice takes place within contexts which inform outcomes. Materials, Performance characteristics of materials, Processes, techniques and specialist tools</p> <p>Skills: Design and make prototypes that are fit for purpose.</p>	<p>Unit Title: Design & Make - Speaker</p> <p>Knowledge: Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture.</p> <p>Skills: Demonstrate and apply knowledge and understanding of design and making principles.</p>
	Term 1	Term 2	Term 3	Term 4	Term 5	
Year 11	<p>Unit Title: NEA Investigate, Design</p> <p>Knowledge: Production of a range of design ideas that</p>	<p>Unit Title: NEA - Design</p> <p>Knowledge: Production of a range of design ideas that</p>	<p>Unit Title: NEA Design, Make</p> <p>Knowledge: Production of a prototype that meets the</p>	<p>Unit Title: NEA Evaluate</p> <p>Knowledge: Analyse the prototype against the product</p>	<p>Unit Title: Revision</p> <p>Knowledge: All exam content.</p>	

	<p>address the criteria in the design brief and product specification.</p> <p>Skills: Design and make prototypes that are fit for purpose.</p>	<p>address the criteria in the design brief and product specification.</p> <p>Skills: Design and make prototypes that are fit for purpose.</p>	<p>requirements of the design brief and product specification, showing a wide range of making skills with precision and accuracy.</p> <p>Skills: Design and make prototypes that are fit for purpose.</p>	<p>specification by conducting a variety of tests under realistic conditions, to ensure fitness for purpose.</p> <p>Skills: Analyse and evaluate design decisions and outcomes, including for prototypes made by themselves and others.</p>	<p>Skills: Recall, revise topics from previous years.</p>		
	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6	
Year 10	<p>Unit Title: Polymers - Categorisation and use of polymers.</p> <p>Knowledge: Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions.</p> <p>Skills: Develop a broad knowledge of materials, components and technologies.</p>	<p>Unit Title: Lighting - Design & Make</p> <p>Knowledge: Develop, communicate, record and justify design ideas, applying suitable techniques.</p> <p>Skills: Select from and use a wider, more complex range of materials, components and ingredients, considering their properties.</p>	<p>Unit Title: Design Contexts - User Centred Design</p> <p>Knowledge: All design and technological practice takes place within contexts which inform outcomes.</p> <p>Skills: Analyse the work of past and present professionals and others to develop and broaden their understanding.</p>	<p>Unit Title: Design Contexts - User Centred Design</p> <p>Knowledge: All design and technological practice takes place within contexts which inform outcomes.</p> <p>Skills: Analyse the work of past and present professionals and others to develop and broaden their understanding.</p>	<p>Unit Title: Games Board</p> <p>Knowledge: Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions.</p> <p>Skills: Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture.</p>	<p>Unit Title: NEA - Investigate</p> <p>Knowledge: Identify the needs of the end user.</p> <p>Skills: Identify, investigate and outline design possibilities to address needs and wants.</p>	
	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6	
Year 9	<p>Unit Title: Desk Tidy - Design & Make Informing design decisions, critical evaluation.</p> <p>Knowledge: understand and use the properties of materials and the performance of structural elements to achieve functioning solutions.</p> <p>Skills: develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools</p>	<p>Unit Title: 3D Printing - CAD/CAM Fidget Spinners</p> <p>Knowledge: New and emerging technologies.</p> <p>Skills: select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture.</p>	<p>Unit Title: 1 - New & Emerging Technologies 5 - Designing Principles</p> <p>Knowledge: Analyse the work of past and present professionals and others to develop and broaden their understanding.</p> <p>Skills: understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists.</p>	<p>Unit Title: 2 - Informing Design Decisions 4 - Material Types</p> <p>Knowledge: Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions.</p> <p>Skills: use research and exploration, such as the study of different cultures, to identify and understand user needs.</p>	<p>Unit Title: Wind Turbine - Energy-</p> <p>Knowledge: Powering Systems Energy generation and use.</p> <p>Skills: understand how more advanced electrical and electronic systems can be powered and used in their products.</p>	<p>Unit Title: Robotics</p> <p>Knowledge: Programmable components & electronics.</p> <p>Skills: apply computing and use electronics to embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components.</p>	
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Year 8	<p>Unit Title: Key Fob - Metals</p> <p>Knowledge: Categorisation and use of metals.</p> <p>Skills: Identify and solve design problems and understand how to reformulate problems.</p>	<p>Unit Title: Food Life Skills</p> <p>Knowledge: Understand and apply the principles of nutrition and health.</p> <p>Skills: Cook a repertoire of predominantly savoury dishes so that they can feed themselves and others a healthy and varied diet.</p>	<p>Unit Title: 3D Printing - CAD/CAM</p> <p>Knowledge: New and emerging technologies.</p> <p>Skills: Use specialist computer-aided design and manufacture tools.</p>	<p>Unit Title: 3D Printing - CAD/CAM</p> <p>Knowledge: New and emerging technologies.</p> <p>Skills: Use specialist computer-aided design and manufacture tools.</p>	<p>Unit Title: Mechanical devices - Mechanical Car</p> <p>Knowledge: Understand how more advanced mechanical systems used in their products enable changes in movement and force.</p> <p>Skills: test, evaluate and refine their ideas and products against a specification.</p>	<p>Unit Title: Mechanical devices - Mechanical Car</p> <p>Knowledge: Understand how more advanced mechanical systems used in their products enable changes in movement and force.</p> <p>Skills: test, evaluate and refine their ideas and products against a specification.</p>
	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 7	<p>Unit Title: Tablet Stand - Timbers</p> <p>Knowledge: Categorisation and use of timbers.</p> <p>Skills: Use specialist tools, techniques, processes, equipment & machinery.</p>	<p>Unit Title: Tablet Stand - Timbers</p> <p>Knowledge: Categorisation and use of timbers.</p> <p>Skills: Use specialist tools, techniques, processes, equipment & machinery.</p>	<p>Unit Title: Slot Toy - CAD/CAM</p> <p>Knowledge: New and emerging technologies.</p> <p>Skills: Use specialist computer-aided design and manufacture tools.</p>	<p>Unit Title: Slot Toy - CAD/CAM</p> <p>Knowledge: New and emerging technologies.</p> <p>Skills: Use specialist computer-aided design and manufacture tools.</p>	<p>Unit Title: Electronic Wearable - Electronics/Textiles.</p> <p>Knowledge: Development of modern, smart and composite materials.</p> <p>Skills: Select from a wide range of complex materials.</p>	<p>Unit Title: Electronic Wearable - Electronics/Textiles.</p> <p>Knowledge: Development of modern, smart and composite materials.</p> <p>Skills: Select from a wide range of complex materials.</p>

Key/Legend/Notes: