

Year 7		
Rotation 1 - Design & Technology (LWT)	Rotation 2 - Cooking & Nutrition (RMT)	Rotation 3 - 3D Design (CBA)
Content/ Processes	Content/ Processes	Content/ Processes
<ul style="list-style-type: none"> - Health & Safety in a workshop. - Iterative design process. - Manufacture of a Ball Bearing Game 	Waiting for them to be sent over	<ul style="list-style-type: none"> - Analysis of a target market. - Production of design ideas.
Concepts	Concepts	Concepts
<ul style="list-style-type: none"> - use research and exploration to identify and understand user needs. - develop specifications to inform the design of appealing products that respond to needs. - generate creative ideas and avoid stereotypical responses - develop and communicate design ideas using annotated sketches - evaluate and refine design solutions. - select and use specialist tools, machinery and processes. - understand and use the properties of materials and the performance of structural elements to achieve functioning solutions 		<ul style="list-style-type: none"> - use research and exploration, such as the study of different cultures, to identify and understand user needs. - use a variety of approaches to generate creative ideas. - develop and communicate design ideas using annotated sketches. - select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture. - analyse the work of past and present professionals and others to develop and broaden their understanding. - understand design and technology impact on individuals, society and the environment, and the responsibilities of designers. - understand and use the properties of materials and the performance of structural elements to achieve functioning solutions.
Essential understanding	Essential understanding	Essential understanding
<ul style="list-style-type: none"> - Working safely and maturely in a workshop is essential for the wellbeing of all. - Individuals have different preferences. - No idea is a bad idea. -Use of machinery can be effective when done so correctly in the manufacture of a product. 		

<ul style="list-style-type: none"> - Polymers can be an alternative to glass. - Shaping, finishing and refining materials can produce a better quality outcome. - Continual evaluation, reviewing and refining of a solution will result in a more successful outcome. 		
Assessment	Assessment	Assessment
<ul style="list-style-type: none"> - Production of design ideas. - Effectiveness and accuracy of each practical stage. - Quality and completion of practical outcomes - Evaluation of the practical outcome. - Knowledge test score. 		<ul style="list-style-type: none"> - Production of design ideas. - Effectiveness and accuracy of each practical stage. - Quality and completion of practical outcomes - Evaluation of the practical outcome. - Self reflection.
Review/ Revisit	Review/ Revisit	Review/ Revisit
<p>Concepts, keywords and language from each lesson is revisited and reused through projects and on other rotations.</p>		<ul style="list-style-type: none"> - Iterative Design Process - NETS and packaging language revisited in Y8.

Year 8		
Rotation 1 - Design & Technology (LWT)	Rotation 2 - Cooking & Nutrition (RMT)	Rotation 3 - 3D Design HWA)

Content/ Processes	Content/ Processes	Content/ Processes
<ul style="list-style-type: none"> - Analyse Existing Products. - How to independently organise their thoughts. - Produce design ideas using specialist CAD software. - Design bespoke NET packaging. - Vacuum form and profile cut package inlay. - Introduced paper and boards categories and terminology. 	<p>Waiting for them to be sent over</p>	<ul style="list-style-type: none"> - Analysis of a target market. - Production of design ideas. - Physical development of ideas.
Concepts	Concepts	Concepts
<ul style="list-style-type: none"> - use research and exploration, such as the study of different cultures, to identify and understand user needs. - develop and communicate design ideas using digital presentations and computer-based tools. -select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture. - select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties 		<ul style="list-style-type: none"> - use research and exploration, such as the study of different cultures, to identify and understand user needs. - develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations. - select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture. - analyse the work of past and present professionals and others to develop and broaden their understanding. - understand and use the properties of materials and the performance of structural elements to achieve functioning solutions.
Essential understanding	Essential understanding	Essential understanding
<ul style="list-style-type: none"> - Iterative Design Process. - New CAD software skills. - Material selection for structural requirements. - Understand and use the properties of materials to achieve functioning solutions. - How to safely and accurately use CAD, hand tools and machines to produce functioning outcomes. - NETS are 2D shapes which can be folded and glued into strong 3D objects. 		<ul style="list-style-type: none"> - Iterative Design Process. - New material as a physical modelling medium. - New modelling skills and specific hand tool use.
Assessment	Assessment	Assessment

Technology Curriculum 2023/24

<ul style="list-style-type: none"> - Production of a final design idea. - Quality and completion of practical outcomes - Evaluation of the practical outcome. - Knowledge test score. 		<ul style="list-style-type: none"> - Quality and completion of practical outcomes - Evaluation of the practical outcome. - Self reflection.
Review/ Revisit	Review/ Revisit	Review/ Revisit
<ul style="list-style-type: none"> - Iterative Design Process - CAD/CAM and software revisited in the Y9 project. - NETS and packaging language revisited in 3D Design rotation. 		<ul style="list-style-type: none"> - Iterative Design Process - NETS and packaging language revisited in 3D Design rotation.

Year 9		
Rotation 1 - Design & Technology (LWT)	Rotation 2 - Cooking & Nutrition (RMT)	Rotation 3 - iMedia (JLI)
Content/ Processes	Content/ Processes	Content/ Processes
<ul style="list-style-type: none"> - Identify and Analyse Primary User - Produce a range of - Design Requirements - Produce a range of Design Ideas. - Working with different Manmade boards - CAD/CAM - Polymers can be formed and shaped to specific 	<p>Waiting for them to be sent over</p>	<ul style="list-style-type: none"> - Graphic design and conventions. - Techniques to plan visual identity and digital graphics.- Tools and techniques of imaging editing software used to create digital graphics. - Technical skills to source, create and prepare assets for use within digital graphics.

<p>requirements using heat, jigs and templates. -Electronic Inputs & Outputs - Connecting electrical components together in a system. - Finishing materials. - Evaluating a product against the Design Requirements.</p>		<p>- Techniques to save and export visual identity and digital graphics.</p>
<p style="text-align: center;">Concepts</p>	<p style="text-align: center;">Concepts</p>	<p style="text-align: center;">Concepts</p>
<p>- develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations. - use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses. - develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tool. - select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture. - select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties. - analyse the work of past and present professionals and others to develop and broaden their understanding. - test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups. - understand and use the properties of materials and the performance of structural elements to achieve functioning solutions. - understand how more advanced electrical and electronic systems can be powered. - apply and use electronics in products that respond to inputs and control outputs.</p>		<p>- Creating mood boards and mind maps with relevant content using physical materials - pictures, text, colours placed on large sheet/board - Setting the canvas size - expanding or modifying - Using internet, stock libraries or client library to search for suitable image assets - Using different storage locations to clearly differentiate original and edited assets in separate folders</p>
<p style="text-align: center;">Essential understanding</p>	<p style="text-align: center;">Essential understanding</p>	<p style="text-align: center;">Essential understanding</p>
<p>- Iterative Design Process</p>		<p>- Be able to produce pre-production documentation to</p>

Technology Curriculum 2023/24

<ul style="list-style-type: none"> - Each user will have different requirements. - A range of ideas always produces a better chosen design. - Manmade boards have different properties. - CAD/CAM can be effective and helpful. - There are different types of Polymers with different working properties. 		<ul style="list-style-type: none"> effectively plan digital graphics - Be able to use the internet effectively to source and resource their digital graphics - Be able to recognise the most effective methods of saving and exporting different digital graphics for different purposes and uses
Assessment	Assessment	Assessment
<ul style="list-style-type: none"> - Quality and completion of practical outcomes - Evaluation of the practical outcome. - Knowledge test score. 		<ul style="list-style-type: none"> - Retrieval of design theory - Summative assessment in the form of a final digital graphic (plus written self review of progress)
Review/ Revisit	Review/ Revisit	Review/ Revisit
If option chosen at GCSE	If option chosen at GCSE	If option chosen at GCSE

Year 10					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes	Content/ Processes
<ul style="list-style-type: none"> - Timbers - Papers & Boards 	<ul style="list-style-type: none"> - New & Emerging Technologies 	<ul style="list-style-type: none"> - Polymers - Ferrous & Non Ferrous 	<ul style="list-style-type: none"> - Developments in New Materials 	Mock NEA: Iterative Design Project	NEA: Iterative Design Project

<ul style="list-style-type: none"> - CAD - Materials Specific Manufacture skills 	<ul style="list-style-type: none"> - Sketching and Presentation Techniques. - CAD - Considering useability when designing - Mechanical Devices - Materials Specific Manufacture skills 	<ul style="list-style-type: none"> Metals - Manufacturing Types and scales - Energy Generation & Storage - Electronic Systems - Materials Specific Manufacture skills 	<p>Mock NEA: Iterative Design Project</p> <p>Context Exploration, Primary User identification and Analysis.</p>	<p>Scenario Analysis, Research, Initial Design Ideas and Development.</p>	<p>AO1 - Identify, investigate and outline design possibilities to address needs and wants</p>
Concepts	Concepts	Concepts	Concepts	Concepts	Concepts
<ul style="list-style-type: none"> - List different Timbers, Papers and Boards and their specific properties. - Design using CAD. - Construct and compare manufacturing skills for different materials. 	<ul style="list-style-type: none"> - New Technologies allow designers to keep designing new and innovative products. - There are many different ways to present design ideas. - Always consider the user when designing a new product. - Many types of mechanisms are used in our everyday products around us. - Construct and compare manufacturing skills for different materials. 	<ul style="list-style-type: none"> - List different Polymers, Ferrous and Non-Ferrous Metals and their specific properties. - Many different types of manufacture are available for different types of products. - Electronic systems should aid the user. - Construct and compare manufacturing skills for different materials. 	<ul style="list-style-type: none"> - Material Technology is continually developing and provides designers with a greater range of materials to use in new products. - Every design project has a client with specific needs. 	<ul style="list-style-type: none"> - Scenario Analysis, Research, Initial Design Ideas and Development. 	<ul style="list-style-type: none"> - Context Exploration, Primary User identification and Analysis.
Essential understanding	Essential understanding	Essential understanding	Essential understanding	Essential understanding	Essential understanding
<p>What are Timbers? Different materials can be used for modelling in different ways. CAD is an essential tool for a designer.</p>	<p>New technology facilitates new designs. What are Ergonomics and Anthropometrics? How do mechanical devices make things easier for humans? What are ferrous and</p>	<p>What are polymers? Different manufacturing scales and methods suit different materials, products and amounts. How can we be more sustainable and use more sustainable fuels/energy?</p>	<p>How to explore a Context and select and investigate a Primary User</p>	<p>Thorough and planned Research and Analysis can direct Idea Generation and Development.</p>	<p>Iterative Design (Explore - Create - Evaluate) Process</p>

<p>NEA: Iterative Design Project AO1 - Identify, investigate and outline design possibilities to address needs and wants. AO2 - Design and make prototypes that are fit for purpose.)</p>	<p>NEA: Iterative Design Project AO2 - Design and make prototypes that are fit for purpose AO3 - Analyse and evaluate: • design decisions and outcomes, including for prototypes made by themselves and others • wider issues in design and technology</p>	<p>NEA: Iterative Design Project AO4 - Demonstrate and apply knowledge and understanding of • technical principles • designing and making principles</p>	<p>NEA: Iterative Design Project AO3 - Analyse and evaluate • design decisions and outcomes, including for prototypes made by themselves and others • wider issues in design and technology</p>	<p>Exam Preparation and Revision Past paper practice, exam techniques, revisit Core knowledge and in depth knowledge topics.</p>	<p>N/A</p>
Concepts	Concepts	Concepts	Concepts	Concepts	Concepts
Scenario Analysis, Research, Initial Design Ideas and Development.	Design Development, Further Research, Technical Specification, Prototype Manufacture planning and Prototype Manufacture.	Prototype Manufacture, Prototype, Presentation, Prototype Testing.	Prototype Testing and Prototype Evaluation	Revisit and embed Core knowledge and In-depth knowledge gained in both Y10 and used and demonstrated throughout the EA project.	
Essential understanding	Essential understanding	Essential understanding	Essential understanding	Essential understanding	Essential understanding
Iterative Design (Explore - Create - Evaluate) Process	Iterative Design (Explore - Create - Evaluate) Process	Iterative Design (Explore - Create - Evaluate) Process	Iterative Design (Explore - Create - Evaluate) Process		
Assessment	Assessment	Assessment	Assessment	Assessment	Assessment
Assessment can only occur at the end of the NEA project. +RAG tracker for project sections used with pupils. Teachers can only give generic feedback on learners' work in progress and return it for re-drafting.	Assessment can only occur at the end of the NEA project. +RAG tracker for project sections used with pupils. Teachers can only give generic feedback on learners' work in progress and return it for re-drafting.	Assessment can only occur at the end of the NEA project. +RAG tracker for project sections used with pupils. Teachers can only give generic feedback on learners' work in progress and return it for re-drafting.	Assessment can only occur at the end of the NEA project. +RAG tracker for project sections used with pupils. Teachers can only give generic feedback on learners' work in progress and return it for re-drafting.	2 hour GCSE Exam	

Technology Curriculum 2023/24

Centre set a deadline of the end of Spring 2.	Centre set a deadline of the end of Spring 2.	Centre set a deadline of the end of Spring 2.	Centre set a deadline of the end of Spring 2.		
Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit	Review/ Revisit
n/a	n/a	n/a	n/a		