

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
7	<u>Rotation 1: Siege Weapons</u> Health and Safety in the workshop Basic Joints – Use of hand tools in the workshop Working Drawings Collaborative designing Making Skills – focus on Wood	<u>Rotation 2: Iterative Design/Fan</u> Population statistics Understanding and designing for: Arthritis & dexterity Poor visual acuity Iterative Design Prototyping Low voltage electricity Soldering Skills Computer Aided Design 1 Computer Aided Manufacture 1 Laser Cutter	<u>Rotation 3: Elements</u> 2 dyeing techniques – tie dye & batik 2 printing techniques – stencilling & block Safe and correct use of the Sewing Machine Core design skills	<u>Rotation 4: Chocolate Bar</u> Computer Aided Design 2 Computer Aided Manufacture 2 Vacuum Forming Logo Development Marketing	<u>Rotation 5: IT</u> Logging in Email safety Practicing email Internet searching and sourcing Learning how to use Excel Learning how to use word Creating a report Microbit Programming Block Editing Logic Statements Inputs and Outputs	<u>Rotation 6: Food</u> Hygiene and safety Eatwell guide/healthy eating Knife skills/how and why we cook food Cereals and staple foods Milk and dairy Meat and fish Eggs
8	<u>Rotation 1: Automata</u> Modelling Skills Cam Mechanisms Material use – Manufactured Boards and Natural Timbers CAD/CAM - linkages	<u>Rotation 2: Sustainable Design</u> Electronic component symbols Environmentally conscious design – 6R's Soldering Skill – Practical Design – sketching & CAD Mould Making & Thermoforming	<u>Rotation 3: Upcycling</u> Factors influencing design Product Branding Environmental issues associated with manufacture of denim Design and Manufacture of upcycled denim product	<u>Rotation 4: IT</u> Research topic skills Storyboards for Flash Animation/Movie Learn how to use Flash software and create animation Filming Windows live moviemaker	<u>Rotation 5: Food</u> Food choice and nutrition Bread Functions of ingredients; pastry/cakes/gelatinisation Multicultural influences Availability of food	
9	<u>Topic: Focus Skill Project</u> Focus project on the student specified area with design work/research to support Advancing practical skills Core Knowledge: New and Emerging Technologies	<u>Topic: Focus Skill Project</u> Focus project on the student specified area with design work/research to support Advancing practical skills Core Knowledge: Energy Generation	<u>Topic: Mini Rotations – Core Material Knowledge</u> Pupils complete 4 2 week rotations covering key material knowledge and working properties. Core Knowledge: Materials Categories	<u>Topic: Completing Mini Rotations & Core Knowledge Testing</u> End of module test Core Knowledge: Materials Categories Core Knowledge: Smart and Modern Materials	<u>Topic: Multi Material Focus project</u> A project which focusses on at least 2 materials from these areas: Timber/Polymers/Metals/Textile/Graphics Core Knowledge: Systems approach to design Core Knowledge: Materials Properties / Stock Forms	<u>Topic: Multi Material Focus project</u> A project which focusses on at least 2 materials from these areas: Timber/Polymers/Metals/Textile/Graphics Finish and Evaluate Core Knowledge: Design Movements/Designers Core Knowledge: Materials Properties / Stock Forms
10	<u>Topic: Core knowledge and Specific area theory</u> Test – Modern/Smart Materials Core Knowledge: Modern and Smart Materials Focus Material Area	<u>Topic: Introduction and start of MockNEA (Non-Examined Assessment/Coursework)</u> - Research - Specification - Initial Designs Core Knowledge: Energy Storage Experience of NEA and its criteria	<u>Topic: Mock NEA</u> - Initial Designs - Development - Modelling Core Knowledge: Mechanical Devices Experience of NEA and its criteria	<u>Topic: Mock NEA</u> - Final designs - Manufacture of Prototype Core Knowledge: Material Properties Experience of NEA and its criteria / Advanced Practical skills & Construction Techniques.	<u>Topic: Mock NEA</u> - Completion of Prototype - Evaluation of final product Experience of NEA and its criteria / Advanced Practical skills & Construction Techniques. Preparation for Year 10 Mock Exam	<u>Topic: Final NEA (50% GCSE)</u> Release of titles from Exam Board Pupils start initial research: - Task Analysis - Primary Research - Secondary Research - Specification

11	Topic: Final NEA (50% GCSE) Pupils continue NEA from end of Year 10. <ul style="list-style-type: none"> - Initial Designs - Development - Modelling NEA - Coursework Core Knowledge: Materials and their working properties(Reteach)	Topic: Final NEA (50% GCSE) Pupils continue NEA as main focus <ul style="list-style-type: none"> - Final Design - Plan of Manufacture Mock Exam – Full 2 hours Mock Exam Preparation Core Knowledge: Mechanical Devices (Reteach)	Topic: Final NEA (50% GCSE) Pupils continue NEA as main focus <ul style="list-style-type: none"> - Manufacture of Final Prototype - Manufacturing Diary Core Knowledge: Materials and their working properties Core Knowledge: Specialist Technical Principles (Reteach)	Topic: Final NEA (50% GCSE) Pupils finish NEA as main focus <ul style="list-style-type: none"> - Manufacture of Final Prototype Complete - Testing and Evaluation - HAND IN Core Knowledge: Specialist Technical Principles (Reteach)	Topic: Preparation for final exam Revision and Review of prior learning Practice Papers All Core Knowledge Areas Exam Technique	Topic: Final NEA (50% GCSE) Pupils continue NEA from end of Year 10. <ul style="list-style-type: none"> - Initial Designs - Development - Modelling NEA - Coursework Core Knowledge: Materials and their working properties(Reteach)
----	---	--	--	---	--	---