

Year 10	T1	T2	T3	T4	T5	T6
Content / Topic for Term	Wood specialist project –skills tower	Textiles and electronics – safety cuff	Polymer project metals project – keyring (subject to availability)	Drawing techniques	Mini trial controlled assessment	Controlled assessment starts (1 June)
Key Knowledge for acquisition, recall and application in assessment or exam	Forces that materials need to come under and the situations they occur. Materials and the categories we study. Wood – hard, soft and manufactured boards. Wood stock forms. Joints and their applications. Health and safety. Finishes. Knock down fittings. Advanced wood techniques. Lamination. Wood turning.	Fibres and fabrics how they are made and their properties. Textile stock forms including how materials are made. Decorative technique. Smart, modern and technical textiles. Paper and cardboard. E textiles. Systems and components. How paper is made from tree to stock form.	Polymer their source and their properties. Stock forms and how they are produced. Techniques for producing products vacuum forming, injection moulding, blow moulding and compression moulding and line bending. Use of 2D design to create main Metals and their properties. Casting methods. Making a cast. Metals from ore to stock form.	Isometric One and two point perspective Orthographic Drawing techniques to enhance a drawing Ergonomic Anthropometrics Technology push Market pull Obsolescence Environmental issues Social moral and social issues	Research primary and secondary Meeting a brief Working with a client Designing Prototyping Evaluation techniques Left over theory Mechanisms Levers Types of power New and emerging technologies Use of computers	Research primary and secondary Meeting a brief Working with a client

	Kurffing. Routing. How these are done in school and in industry. Joining methods for wood. Manufacturing types.		Revision of all materials learnt.			
Key skills to apply in assessment or exam	Accuracy when using tools. Steps to producing products made with wood from start to finish. Produce work safely.	Use of different equipment to create different decorative techniques. Sewing machine. Creating an e circuit. Step by step for different techniques.	Using 2D designs to create accurate designs. Use of vacuum former and strip heater. Using materials to cast metal products.	Isometric One and two point perspective Orthographic Detailed writing related to Ergonomics Anthropometrics Technology push Market pull obsolescence	Using a range of skills independently to produce their own project	Working independently to complete their own research related to their own controlled assessment project
Title of Knowledge Organiser	Woods Wood finishes Joining wood together Manufactured boards and stock forms	Composites Construction techniques textiles Decorative techniques Fibres Fabrics	Polymers Designers Design movements of the 20 th century Companies Metals	Communication of ideas Designing in the human context Environmental, ecological and sustainability	Mechanisms Levers Types of power New and emerging technologies Use of computers	None for this unit as not allowed

	Material properties to withstand forces. Stock forms wood. Tools and health and safety. Woods. Cutting. Industrial manufacture wood. Joining methods. Standard components wood. Wood process.	Smart and modern materials Systems and components Technical textiles Paper card and board				
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