Curriculum Sequencing Grid: ***Design & Technology***

Year 7	**Term 1**	**Term 2**	**Term 3**
Unit (Tablet in 39 week plan)	Graphics Module Textile Bauble Module	Wooden Toy Module	Plastic Clock Module Metal Keyring Module
Key Retainable Knowledge (Required for Y11/13) • What… How…. Why….	**Isometric drawing** – an introduction to technical drawing as required in Y11 exam and industry standard. **Rendering** – communicating colour, texture and material of technical drawings. **CAD** – utilise Google SketchUp to draw and render a 3D house. **Design process** – following the seven stages of the engineering design process to create a commercially viable product. **Textiles theory** – gain an understanding of the source, classification and application of different textile products. **Manufacturing technique** – practice and develop the skill of creating a textile product using industry appropriate processes.	**Wood theory** – gain an understanding of the source, classification and application of different types of woods. **Manufacturing technique** – practice and develop the skill of creating a wooden product using industry appropriate processes.	**CAD** – utilise TechSoft 2D Design to create a CAD drawing that can be cut out of acrylic via the laser cutter. **Design process** – following the seven stages of the engineering design process to create a commercially viable product. **Plastics and metal theory** – gain an understanding of the source, classification and application of different plastic and metal products. **Manufacturing technique** – practice and develop the skill of creating a plastic and a metal product using industry appropriate processes.
Key Technical Vocabulary (To be modelled and deliberately practiced in context.)	Isometric drawing Rendering CAD Natural and synthetic fabrics Felt	Pillar drill Disc sander Coping saw Softwood Hardwood Pine	Thermoplastic, Thermosetting plastic Polymer CAD Ferrous, Non-ferrous Acrylic Aluminium
Opportunities for Reading	YouTube videos which demonstrate practical skills in an industrial context. Hyperlinked in PowerPoints.	YouTube videos which demonstrate practical skills in an industrial context. Hyperlinked in PowerPoints.	YouTube videos which demonstrate practical skills in an industrial context. Hyperlinked in PowerPoints.

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Developing Cultural Capital (exposure to very best- essential knowledge and skills of educated citizens – appreciation of human creativity and achievement.)	Discuss environmental effects of growing cotton vs synthetic materials.		Consider environmental impact of sustainable Vs non-sustainable materials.
Cross Curricular Links (Authentic Connections)			
Key Assessment	Isometric drawing Google Sketch-Up house drawing Initial design ideas – bauble. Textile practical outcome Textiles: End of module test	Wooden toy practical outcome Wood: End of module test	Acrylic clock practical outcome Plastics: End of module test Aluminium keyring practical outcome Metal: End of module test