

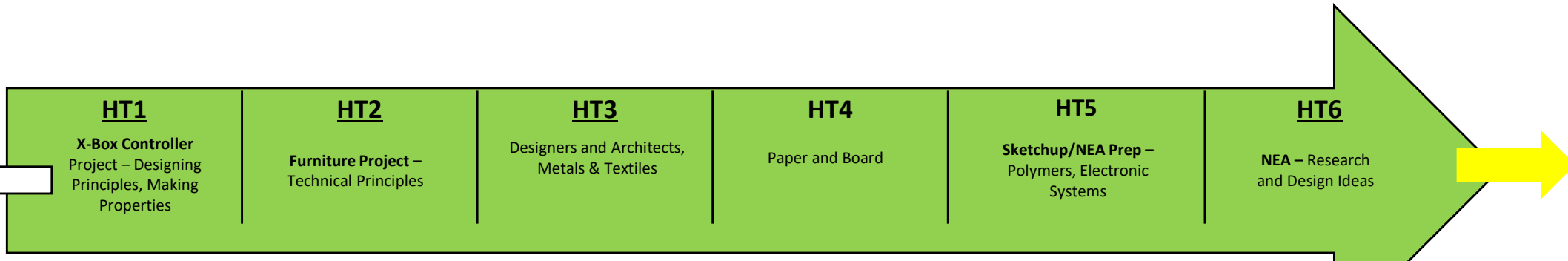
Sandbach School Design and Technology Curriculum:

Year 10 GCSE Design and Technology Curriculum Sequence

Intent: To **consolidate** key skills learnt in Yrs 7-9 and develop GCSE ideas and present practical and portfolio based work in a creative manner. The development of prototypes for a Target Market and analysis of products and ideas to help prepare for the GCSE NEA.

Consolidate:

Qualifications Phase
AQA Design and Technology



HT1 X-Box Controller Project – Designing Principles, Making Properties	HT2 Furniture Project – Technical Principles	HT3 Designers and Architects, Metals & Textiles	HT4 Paper and Board	HT5 Sketchup/NEA Prep – Polymers, Electronic Systems	HT6 NEA – Research and Design Ideas
<p>Why These modules? Develop planning skills, modelling, development and practical skills Designing Principles, selection of materials, Manufacturing Techniques and Processes</p>	<p>Why These modules? Embedding practical skills Basing work on the work of others Architects, Design Movements and Graphic Designers – Exam prep</p>	<p>Why These modules? Part of the GCSE Specification Embedding prior knowledge learnt at Transition Phase and in Year 9 Developing models of ideas</p>	<p>Why These modules? Part of the GCSE Specification Developing knowledge learnt at Transition Phase and in Year 9</p>	<p>Why These modules? Prep for NEA Ensuring pupils are ready to begin the NEA Reminding pupils of Google Sketchup skills and how to gain higher marks Showing the link between work and Grades</p>	<p>Why These modules? Beginning of NEA Dictated by the GCSE Specification (AQA). Pupils complete this stage in a time restricted period, to allow progression onto the next phase of the NEA.</p>
<p>Specification Links 3.1.6 – Materials and their Working Properties 3.2.1 – Selection of Materials or Components 3.3.3 - Designing Principles – the work of others Making Principles – Specialist equipment, Surface Finishes 3.3.10 – Specialist Tools and Equipment 3.3.11 – Specialist Techniques and Processes</p>	<p>Specification Links The work of others – Designers, Architects, Design Movements Forces and stresses 3.1.1 – New and Emerging Technologies 3.1.2 – Energy Generation and Storage 3.2.5 – Using and Working with Materials 3.2.6 – Stock Forms, Types and Sizes</p>	<p>Specification Links 3.2.3 – Ecological and Social Footprint 3.2.4 – Sources and Origins 3.2.7 – Scales of Production 3.2.8 – Specialist Techniques and Processes 3.3.1 – Investigation, Primary and Secondary Data 3.3.3 – The Work of Others Origins and properties of materials Electronics The 6 R's Ecological and social footprint</p>	<p>Specification Links The use of paper and Board Why Designers choose certain materials The environmental impact of design on society 3.1.5 – Mechanical Devices 3.3.4 – Design Strategies 3.3.8 – Tolerances 3.3.9 – Material Management</p>	<p>Specification Links Prep for NEA 3.1.3 – Developments in New Materials 3.1.4 – Systems Approach to Designing 3.2.2 – Forces and Stresses 3.3.5 – Communication of Design Strategies</p>	<p>Specification Links AO1 Identify, Investigate and Outline Design Possibilities AO2 Design and make prototypes that are fit for purpose AO3 Analyse and evaluate</p>
<p>Teaching These Topics Here Supports: NEA Development in Yr 10/11 Subject Knowledge and embedding understating from KS3</p>	<p>Teaching These Topics Here Supports: NEA Development in Yr 10/11 Subject Knowledge and embedding understating from KS3</p>	<p>Teaching These Topics Here Supports: NEA Development in Yr 10/11 Subject Knowledge and embedding understating from KS3</p>	<p>Teaching These Topics Here Supports: NEA Development in Yr 10/11 Subject Knowledge and embedding understating from KS3</p>	<p>Teaching These Topics Here Supports: NEA Development in Yr 10/11 Subject Knowledge and embedding understating from KS3</p>	<p>Teaching These Topics Here Supports: Prior learning, Examination prep and Coursework</p>
<p>These Topics Feed From: Yr 9 Options Project (Pewter Casting) Designing and Making Principles learnt at KS3 Sketching Project completed Yr 9 Summer Term D&T Enrichment Curriculum Project</p>	<p>These Topics Feed From: Yr 9 Options Project (Pewter Casting) Designing and Making Principles learnt at KS3 Sketching Project completed Yr 9 Summer Term</p>	<p>These Topics Feed From: Half Term 1 and 2 of Yr 10 Yr 9 Options Project (Pewter Casting) Designing and Making Principles learnt at KS3 Sketching Project completed Yr 9 Summer Term</p>	<p>These Topics Feed From: Transition Phase work completed on Pen Project, CAD/CAM work</p>	<p>These Topics Feed From: Prior CAD/CAM work completed in Transition and Qualifications Phase</p>	<p>These Topics Feed From: Prior Project Work throughout D&T Qualifications Phase D&T Enrichment Curriculum Project</p>