

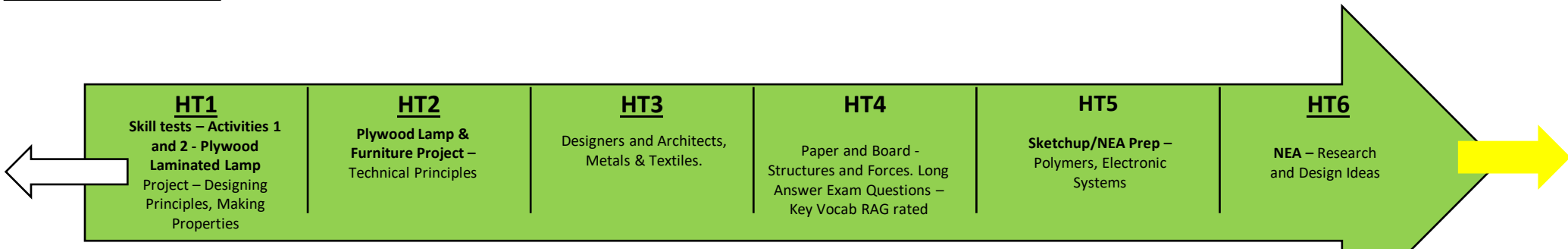
# Sandbach School Design and Technology Curriculum:

Consolidate:

## 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.

Qualifications Phase  
AQA Design and Technology



<b>Why These modules?</b> Develop planning skills, modelling, development and practical skills Designing Principles, selection of materials, Manufacturing Techniques and Processes	<b>Why These modules?</b> Embedding practical skills Basing work on the work of others Architects, Design Movements and Graphic Designers – Exam prep	<b>Why These modules?</b> Part of the GCSE Specification Embedding prior knowledge learnt at Transition Phase and in Year 9 Developing models of ideas	<b>Why These modules?</b> Part of the GCSE Specification Developing knowledge learnt at Transition Phase and in Year 9	<b>Why These modules?</b> 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	<b>Why These modules?</b> 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.
<b>Specification Links</b> 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	<b>Specification Links</b> 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	<b>Specification Links</b> 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	<b>Specification Links</b> 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	<b>Specification Links</b> 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	<b>Specification Links</b> A01 Identify, Investigate and Outline Design Possibilities A02 Design and make prototypes that are fit for purpose A03 Analyse and evaluate
<b>Teaching These Topics Here Supports:</b> NEA Development in Yr 10/11 Subject Knowledge and embedding understating from KS3	<b>Teaching These Topics Here Supports:</b> NEA Development in Yr 10/11 Subject Knowledge and embedding understating from KS3	<b>Teaching These Topics Here Supports:</b> NEA Development in Yr 10/11 Subject Knowledge and embedding understating from KS3	<b>Teaching These Topics Here Supports:</b> NEA Development in Yr 10/11 Subject Knowledge and embedding understating from KS3	<b>Teaching These Topics Here Supports:</b> NEA Development in Yr 10/11 Subject Knowledge and embedding understating from KS3	<b>Teaching These Topics Here Supports:</b> Prior learning, Examination prep and Coursework
<b>These Topics Feed From:</b> 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	<b>These Topics Feed From:</b> Yr 9 Options Project (Pewter Casting) Designing and Making Principles learnt at KS3 Sketching Project completed Yr 9 Summer Term	<b>These Topics Feed From:</b> 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	<b>These Topics Feed From:</b> Transition Phase work completed on Pen Project, CAD/CAM work	<b>These Topics Feed From:</b> Prior CAD/CAM work completed in Transition and Qualifications Phase	<b>These Topics Feed From:</b> Prior Project Work throughout D&T Qualifications Phase D&T Enrichment Curriculum Project