







# Curriculum Content Map DT - Yr10

	TERM 1		TERM 2		TERM 3	
Unit title & description	Introduction / Polymers	Metals / Mechanisms	Natural Timbers	Natural Timbers / CAD/CAM / Smart Mat	Systems / Electronics	Paper and Boards / Textiles / Practice NEA
<p><b>Sequencing - Why is this taught and now?</b></p>	<p>Introduction to the course and how it will be taught. The basics on what the Design Industry, history to contemporary to future.</p> <p>Reintroduction to the workshop and introduction to the classroom as studio.</p> <p>Introduction to <b>Technical Principles and Core Content</b>; Polymers</p> <p>Introduction to <b>Design and Making Principles</b></p>	<p>Introduction to <b>Technical Principles and Core Content</b>; Metals</p> <p>Introduction to <b>Technical Principles and Core Content</b>; Mechanisms</p> <p>Development of <b>Design and Making Principles</b></p>	<p>Introduction to <b>Technical Principles and Core Content</b>; Natural Timbers</p> <p>Development of <b>Design and Making Principles</b></p>	<p>Development of <b>Technical Principles and Core Content</b>; Natural Timbers</p> <p>Development of <b>Technical Principles and Core Content</b>; Design Technology and our World</p> <p>Introduction to <b>Technical Principles and Core Content</b>; Smart and Modern Materials</p> <p>Development of <b>Design and Making Principles</b></p>	<p>Introduction to <b>Technical Principles and Core Content</b>; electrical systems and programable components</p> <p>Development of <b>Technical Principles and Core Content</b>; Mechanisms (+ Energy)</p>	<p>Introduction to <b>Technical Principles and Core Content</b>; Paper and Boards</p> <p>Introduction to <b>Technical Principles and Core Content</b>; Textiles</p> <p>Development of <b>Design and Making Principles</b>; <b>NEA POSSIBILITY / NEA Launch</b></p>
 Knowledge	<p><b>Theory Knowledge</b></p> <ul style="list-style-type: none"> <li>- <i>Polymers</i></li> <li>Thermofforming and Thermosetting. Stock forms, types of plastic, manipulation, uses, properties, cultural importance, impacts, ads/ disads.</li> <li>- <i>Scales of Production</i> one off, batch, mass, JIT</li> <li>- <i>Quality Control / Assurance</i> – Standards, tolerances, Flowcharts</li> <li>- <i>Sustainability</i> - 6Rs</li> </ul>	<p><b>Theory Knowledge</b></p> <ul style="list-style-type: none"> <li>- <i>Metals</i></li> <li>Ferrous, non-ferrous, alloys, periodic table, uses, properties, manipulation, production, sources, cultural importance, impacts, ads/ disads.</li> <li>- <i>Life Cycle Analysis</i> Linear / Cyclical</li> <li>- <i>Design Iteration</i></li> <li>- <i>Mechanisms</i></li> <li>Types of motion, Levers, Linkages</li> </ul>	<p><b>Theory Knowledge</b></p> <ul style="list-style-type: none"> <li>- <i>Natural Timber</i></li> <li>Softwood, Harwood, Manufactured Boards, uses, properties, manipulation, production, sources, cultural importance, impacts, ads/disads, treatments</li> <li>- <i>Design Process</i></li> <li>- <i>Wastage, Addition and Subtraction</i></li> <li>- <i>Fixings and Adhesives</i></li> </ul>	<p><b>Theory Knowledge</b></p> <ul style="list-style-type: none"> <li>- <i>Natural Timber</i></li> <li>Softwood, Harwood, Manufactured Boards, uses, properties, manipulation, production, sources, cultural importance, impacts, ads/disads, treatments</li> <li>- <i>Computer Aided Design</i></li> <li>3D space, impacts on design, input/output, CAM, ads/disads</li> <li>- <i>Smart and Modern</i></li> </ul>	<p><b>Theory Knowledge</b></p> <ul style="list-style-type: none"> <li>- <i>Electronics</i></li> <li>Systems, components, uses, properties, production, cultural importance, impacts, ads/disads,</li> <li>- <i>Mechanisms</i></li> <li>Cams, pulleys, gears, forces, calculations</li> </ul>	<p><b>Theory Knowledge</b></p> <ul style="list-style-type: none"> <li>- <i>Paper and Boards</i></li> <li>Stock forms, types of paper and boards, manipulation, uses, properties, cultural importance, impacts, ads/ disads.</li> <li>- <i>Textiles</i></li> <li>Stock forms, types of textiles, manipulation, uses, properties, cultural importance, impacts, ads/ disads.</li> </ul>



 <p>Enrichment learning</p>	<p>- Visit to Recycling Project in Soho</p>			<p>- Visit to furniture maker (tbc)</p>	<p>- Talk programme (tbc)</p>	
 <p>British values</p>						
 <p>Character</p>						
 <p>Careers</p>	<ul style="list-style-type: none"> <li>- Market Research</li> <li>- Project Management</li> <li>- Product Design</li> <li>- Graphic Design</li> <li>- UX/UI Design</li> <li>- Architecture</li> <li>- Industrial design</li> <li>- Engineering</li> <li>- Textiles / Fashion</li> <li>- Manufacturing</li> <li>- Business</li> <li>- etc.</li> </ul>	<ul style="list-style-type: none"> <li>- Market Research</li> <li>- Project Management</li> <li>- Product Design</li> <li>- Graphic Design</li> <li>- UX/UI Design</li> <li>- Architecture</li> <li>- Industrial design</li> <li>- Engineering</li> <li>- Textiles / Fashion</li> <li>- Manufacturing</li> <li>- Business</li> <li>- etc.</li> </ul>	<ul style="list-style-type: none"> <li>- Market Research</li> <li>- Project Management</li> <li>- Product Design</li> <li>- Graphic Design</li> <li>- UX/UI Design</li> <li>- Architecture</li> <li>- Industrial design</li> <li>- Engineering</li> <li>- Textiles / Fashion</li> <li>- Manufacturing</li> <li>- Business</li> <li>- etc.</li> </ul>	<ul style="list-style-type: none"> <li>- Market Research</li> <li>- Project Management</li> <li>- Product Design</li> <li>- Graphic Design</li> <li>- UX/UI Design</li> <li>- Architecture</li> <li>- Industrial design</li> <li>- Engineering</li> <li>- Textiles / Fashion</li> <li>- Manufacturing</li> <li>- Business</li> <li>- etc.</li> </ul>	<ul style="list-style-type: none"> <li>- Market Research</li> <li>- Project Management</li> <li>- Product Design</li> <li>- Graphic Design</li> <li>- UX/UI Design</li> <li>- Architecture</li> <li>- Industrial design</li> <li>- Engineering</li> <li>- Textiles / Fashion</li> <li>- Manufacturing</li> <li>- Business</li> <li>- etc.</li> </ul>	<ul style="list-style-type: none"> <li>- Market Research</li> <li>- Project Management</li> <li>- Product Design</li> <li>- Graphic Design</li> <li>- UX/UI Design</li> <li>- Architecture</li> <li>- Industrial design</li> <li>- Engineering</li> <li>- Textiles / Fashion</li> <li>- Manufacturing</li> <li>- Business</li> <li>- etc.</li> </ul>
 <p>Assessment opportunities</p>	<p>Formative – practical skills Summative – Exam practice</p>	<p>Formative – practical skills Summative – Exam practice and AP</p>	<p>Formative – practical skills Summative – Exam practice and AP</p>	<p>Formative – practical skills Summative – Exam practice</p>	<p>Formative – practical skills Summative – Exam practice and AP</p>	<p>Formative – practical skills Summative – Exam practice</p>

<b>Personalised challenge for all: SEND, HPA</b>						
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