

## Year 10 Product Design

Timing	Unit title	Project aims	Written paper knowledge	Assessing understanding
1/2 term	Mini Iconic Chair	*Design history	*Specialist materials: properties, techniques and processes - Polymers	*Communication with subject specific language
1/2 term	Laser Cut Acrylic Jewellery	*Scale model making skills  *Working with modelling materials  *CAD/CAM  *2D Design skills  *Production techniques for volume production	*Designing Principles	*Polymers materials test  *Testing and evaluation of practical outcomes
Term 2	Glow Lamp	*Procreate design skills  *Basic electronics  *Working with wood	*Core materials and their working properties  *Impact of new and emerging technologies	*Practice exam questions and written homework assignments  *Testing and evaluation of practical outcomes
1/2 term	*Alessi Inspired 3D Print Household Product	*3D drawing skills  *3D printing technology  *Design strategies and communication	*Developments in new materials  *Energy generation and storage  *Ecological and social footprint	*Environment, social moral cultural topic test  *Testing and evaluation of practical outcomes
1/2 term	NEA	*Explore the Contextual Challenges  *Outline a Design Problem		

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Term 1	NEA	<ul style="list-style-type: none"> <li>*Research</li> <li>*Design Brief</li> <li>*Design Specification</li> <li>*Initial Ideas</li> </ul>	<ul style="list-style-type: none"> <li>*Using and working with materials</li> <li>*Making Principles</li> </ul>	*Communication with subject specific language
Term 2	NEA	<ul style="list-style-type: none"> <li>*Develop and Refine Design Ideas</li> <li>*Final Design Idea</li> <li>*Production of Prototype</li> <li>*The Finished Prototype</li> </ul>	<ul style="list-style-type: none"> <li>*Revision</li> <li>*Further designing principles</li> <li>*Core - Systems approach to designing</li> </ul>	Mock exam
	NEA	<ul style="list-style-type: none"> <li>*Test and Evaluate the Finished Prototype</li> </ul>	<ul style="list-style-type: none"> <li>*Revision</li> </ul>	Complete NEA And revision/theory homework tasks