




Unit = Year 13 Final NEA	Road Map				
In this unit you will complete your final NEA worth 50% of you're A Level grade.	Assessment Grades				
Themes	Learning Goals/Outcomes/Content				
How do you render product design concepts?	<b>L1&amp;2 Drawing Skills</b> <u>Knowledge (Component)</u> How to use markers to render concept drawings How to use crating to generate drawing frameworks				
What is my products specification?	<b>L3&amp;4 Design Specification</b> <u>Knowledge (Component)</u> Able to use research to inform designing Able to create a relevant, justified specification				
What are my product design concepts?	<b>L5-9 First Concepts</b> <u>Knowledge (Component)</u> Able to create a range of original concepts Able to communicate concepts clearly using rendered images				
How can I refine my concepts?	<b>L9-13 Initial Ideas</b> <u>Knowledge (Component)</u> Able to produce a range of possible solutions that are creative and take risk Are able to apply rendering techniques Are able to annotate in depth				
How can my concepts be translated into 3D form?	<b>L14-16 Modelling</b> <u>Knowledge (Component)</u> Are able to translate a 2D image into a 3D form Are able to modify concepts				
What further development do I need to undertake?	<b>L17&amp;18 Modelling analysis</b> <u>Knowledge (Component)</u> Are able to justify modifications Are able to evaluate concepts against the specification				
What needs refining to ensure a final concept that meets the specification?	<b>L1-4 Developed Ideas</b> <u>Knowledge (Component)</u> Able to develop a concept into a working concept				

	Able to communicate the design journey including justification			
What is the final concept be?	<p><b>L5-7 Final CAD Design</b></p> <p><u>Knowledge (Component)</u></p> <p>Able to use CAD software to produce a final concept</p> <p>Abel to communicate the final concept using 3D modelling software</p>			
What dimensions will the final concept be?	<p><b>L8&amp;9 Orthographic</b></p> <p><u>Knowledge (Component)</u></p> <p>Students able to draw using correct orthographic conventions</p> <p>Students able to produce a working drawing for a third party</p>			
What will the final concept be manufactured from?	<p><b>L10 Materials</b></p> <p><u>Knowledge (Component)</u></p> <p>Students to select appropriate materials for their project</p> <p>Students able to justify their selections</p>			
How will the final concept be manufactured?	<p><b>L11-13 Test Pieces</b></p> <p><u>Knowledge (Component)</u></p> <p>Students able to determine final construction of concept</p> <p>Stunts able to evaluate outcomes to inform design decisions</p>			
What materials and parts are required to make the final concept?	<p><b>L14&amp;15 Cutting List</b></p> <p><u>Knowledge (Component)</u></p> <p>Students able to calculate materials required</p> <p>Students able to cost project</p> <p>Students able to select appropriate materials and components</p>			
How does the final concept impact upon the specification?	<p><b>L16&amp;17 Manufacturing Specification</b></p> <p><u>Knowledge (Component)</u></p> <p>Students able to draw finding from development to update Design Specification</p>			
How do you manufacture a prototype to demonstrate a concept?	<p><b>L1-17 Final Concept making</b></p> <p><u>Knowledge (Component)</u></p> <p>Students able to manufacture a prototype</p> <p>Students able to select appropriate materials and processes</p> <p>Students able to adapt and modify concepts according to making process</p> <p>Students able to work safely</p>			

<p>How do you manufacture a prototype to demonstrate a concept?</p>	<p><b>L1-11 Final Concept making continued</b></p> <p><u>Knowledge (Component)</u></p> <p>Students able to manufacture a prototype</p> <p>Students able to select appropriate materials and processes</p> <p>Students able to adapt and modify concepts according to making process</p> <p>Students able to work safely</p>			
<p>Does my final concept meet the needs of the design brief and specification?</p>	<p><b>L12&amp;13 Product Testing</b></p> <p><u>Knowledge (Component)</u></p> <p>Students are able to select appropriate testing methods</p> <p>Students can carry out testing leading to conclusions</p>			
<p>How could my product be further developed?</p>	<p><b>L14 Modifications</b></p> <p><u>Knowledge (Component)</u></p> <p>Students can identify further areas for development</p> <p>Students can suggest how to improve the concept</p> <p>Students can justify their solutions</p>			
<p>How well does my product achieve the Design Specification criteria and how do I know this?</p>	<p><b>L15 Specification Evaluation &amp; Conclusions</b></p> <p><u>Knowledge (Component)</u></p> <p>Students are able to evaluate their concept against the specification</p> <p>Students can identify specific evidence to support their evaluation</p> <p>Students can suggest further development opportunities</p>			