



# Curriculum Map - Design & Technology

Subject:

Year group: Year 10 & 11

	Shadowbox frame Sep - Oct Half term	Pizza cutter Dec - Feb Half term	PoggenPohl 2 weeks in March/April	Desk Storage Feb Half term - May 15th	NEA June 1st- Feb the following year.
<p><b>Content</b></p> <p><i>Declarative Knowledge – ‘Know What’</i></p>	<p>Students will know what is expected of them with the course and introduce them to the NEA coursework as well as the theory content</p>	<p>Students will know what Anthropometric Data and Ergonomics means as well as how this helps in the development of everyday products.</p>	<p>Students will have the opportunity to design and make a prototype for an actual client where they will submit it as part of a competition.</p>	<p>Students will apply what they have learnt from the prior theory and practise NEA’s to design and make a desktop storage solution for their home office/desk making sure that they are focusing on the needs of the user.</p>	<p>This is their final year 11 project. 3 briefs will be set by the exam board and students will complete a 20 page portfolio which shows evidence of research, design, development, making and evaluation skills.</p> <p>This years briefs are:</p> <ol style="list-style-type: none"> <li>1. Multifunctional living</li> <li>2. Teenage lifestyle</li> <li>3. Nature and the environment</li> </ol>
<p><b>Skills</b></p> <p><i>Procedural Knowledge – ‘Know How’</i></p>	<p>Students will cover the following sections of the NEA:</p> <p>Initial ideas, research into materials. Developing ideas, Making Diary and evaluation.</p> <p>The following theory sections will be covered.</p> <p>Section 3 - Materials and their working properties (14-18) Section 5B Timber based Materials (27-29)</p>	<p>Students will cover the following sections of the NEA:</p> <p>Research into ergonomics. Developing through modelling. Client feedback. Material testing, Evaluation (user focused)</p> <p>The following theory sections will be covered.</p> <p>Section 1 -New and emerging technologies (1-5)</p>	<p>Students will work on a brief set by Poggenpohl, which will require them to submit a 3 page design portfolio and a concept model of their proposed idea.</p>	<p>Students will cover the following sections of the NEA:</p> <p>Task analysis, client and consumer research, product analysis, design brief, specification, initial ideas, development, CAD and Physical modelling. Manufacturing plan/specification. Making journals, evaluations, testing and modifications and showcase.</p>	<p>Students will apply what we have covered from the previous projects to produce a 20 page NEA portfolio.</p> <p>The following theory sections will be covered.</p> <p>Section 6 - Designing principles (42-45) Section 7 Making principles (46-50)</p> <p>We will be reviewing content covered throughout year 10 in the form of exam prep and practise.</p>



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	Section 5C - Polymers (33-35)	Section 4 - Common specialist and technical principles (chapter 19 & 23)		<p>The following theory sections will be covered.</p> <p>Section 2 - Energy, materials, systems and devices. (6-13)</p> <p>Section 4 - Common specialist and technical principles (20-22)</p> <p>Section 6 - Designing principles (42-45)</p> <p>Section 7 Making principles (46-50)</p>	
<b>Key Questions</b>	<p>What are the different categories of timbers and polymers?</p> <p>How can we cut and shape timber/polymers?</p> <p>What are the requirements of a successful design idea?</p> <p>What are QC &amp; H&amp;S checks?</p> <p>What is a go/no go gauge.</p>	<p>What is the difference between ergonomics and anthropometrics?</p> <p>How do we record and present data?</p> <p>What is CAD &amp; CAM?</p>	<p>What is a brief?</p> <p>What is a design specification?</p> <p>What do you need to consider when designing for a specific client?</p>	<p>What is a prototype?</p> <p>Why do we model our ideas before we make them?</p> <p>How can we plan and produce an effective manufacturing specification?</p>	
<b>Assessment</b>	<p>Students will be marked out of 50 and the marks will be broken down like so.</p> <p>Research &amp; Testing - 10            Designing - 15            Making 15            Evaluation 10</p> <p>They will also be assessed on Units 3, 5b and &amp; 5C which will be in the form of a 45 minute assessment for each unit.</p>	<p>Students will be marked out of 60 and the marks will be broken down like so.</p> <p>Research - 10            Designing - 10            Development -15            Making 15            Evaluation 10</p> <p>They will also be assessed on Units 1 &amp; 4 which will be in the form of a 45 minute assessment for each unit.</p>	<p><b>Students will be assessed on their design and modelling, using the mark scheme from the exam board.</b></p> <p><b>This will be a competition for students to take part in.</b></p>	<p>Students will be marked out of 80 and the marks will be broken down like so.</p> <p>Research - 10            Designing - 20            Development -20            Making 20            Evaluation 10</p> <p>They will also be assessed on Units 1 &amp; 4 which will be in the form of a 45 minute assessment.</p>	<p>Students will be marked out of 100 and the marks will be broken down like so.</p> <p>Research - 10            Design Brief &amp; Specification 10            Designing - 20            Development -20            Making 20            Evaluation 20</p> <p>They will also be assessed on Units 1 &amp; 4 which will be in the form of a 45 minute assessment.</p>



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<p><b>Literacy/Numeracy/ SMSC/Character</b></p>	<p>Measuring and marking, circle theorem, angles, area and volume. Annotations, how to analyse and evaluate, how to Answer long mark questions.</p>	<p>Measuring and marking, reading and interpreting data, collecting data. , annotations.How to Answer long mark questions.</p>	<p>Confidence -Working as a team.</p>	<p>Measuring and marking, circle theorem, angles, area and volume. Annotations, how to analyse and evaluate, how to Answer long mark questions.</p>	<p>Measuring and marking, circle theorem, angles, area and volume.  Reading and Interpreting data.  Annotations, how to analyse and evaluate, how to Answer long mark questions.</p>
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