



**SUBJECT: Year 10 GCSE: Design & Technology (Creative Technology) – Autumn Term**

	<b>Autumn Term 1</b>	<b>Autumn Term 2</b>
<b>Topic</b>	<p><b>Core Technical Principles of Design</b>  <i>A: Understand that designers need to use up to date information and be aware of developments that are happening around the world</i>  <i>A1 New &amp; emerging technologies</i>  <i>A2 Energy generation &amp; energy storage</i>  <i>A3 Developments in new materials</i>  <i>A4 Systems approach to designing</i></p> <p><b>Designing &amp; Making Principles</b>            Examine examples of design from iconic design movements and designers aid inspiration design ideas</p> <p><b>Design Strategies &amp; Communication of design ideas</b>            Focus on freehand sketching of Organic forms; Enhancing two-dimensional sketches; Initial Ideas sketches; Annotation Basic Modelling and Design development communication</p> <p><b>Designing Products and Developing prototypes</b>            focus on the production of a bespoke metal based decorative item            learn about processes for cutting shaping and forming a metal based material.</p>	<p><b>Core Technical Principles of Design</b>  <i>A: Understand that designers need to use up to date information and be aware of developments that are happening around the world</i>  <i>Materials and their working properties</i></p> <p><b>Specialist Technical Principles</b>  <i>Develop an in depth knowledge and understanding of the following principles. Understand these principles in relation to at least <b>one</b> material category or system.</i>  <i>Selection of Materials or components</i>  <i>Forces and stresses</i></p> <p><b>Designing &amp; Making Principles</b>            Examine examples of design from iconic design movements and designers</p> <p><b>Design Strategies &amp; Communication of design ideas</b>            Focus on freehand sketching; Enhancing two-dimensional sketches; Initial Ideas sketches; Annotation Basic Modelling and Design development communication</p> <p><b>Designing and Developing prototypes</b>            focus on the completion of a bespoke metal based jewelry item            learn about selection of marking out equipment technical processes for joining metal and polishing metal based materials</p>
<b>Assess</b>	<p><b>Progress Check 1</b>  <b>Approximate Date of Assessment Week Beginning: 21/10/19</b></p> <ul style="list-style-type: none"> <li>• Demonstration of identified sketching processes (project portfolio)</li> <li>• Demonstration of identified skills (prototype development)</li> <li>• Submission of assignments (classwork &amp; homework)</li> </ul>	<p><b>MILESTONE 1</b>  <b>Approximate Date of Assessment Week Beginning: 02/12/19</b></p> <ul style="list-style-type: none"> <li>• Submission - Project portfolio (Application of standard form of communication in Design &amp; Technology )</li> <li>• Submission - completed metal based prototype</li> <li>• Written Exam -Core Technical Principles of Design</li> </ul>



	Spring Term 1	Spring Term 2
<b>Topic</b>	<p><b>Assignment 2 start date: 27/01/20</b></p> <p><b>Specialist Technical Principles</b>  <i>Develop an in depth knowledge and understanding of the following principles. Understand these principles in relation to at least <b>one</b> material category or system.</i>  <i>Ecological and Social footprint; Sources and Origins; Using and working with materials.</i></p> <p><b>Designing &amp; Making Principles</b>                      Examine examples of design from iconic design movements and designers aid inspiration design ideas</p> <p><b>Design Strategies &amp; Communication of design ideas</b>                      Focus on freehand sketching of Manufactured forms. Perspective, Isometric and Orthographic Drawing. CAD.</p> <p><b>Designing Products and Developing prototypes</b>                      focus on the design and production of a timber and polymer Mechanisms Toy. Apply elements of the Iterative Design process : explore design opportunities; analyze existing products; develop design ideas; cutting shaping and joining methods - timber and polymers material.</p>	<p><b>Specialist Technical Principles</b>  <i>Develop an in depth knowledge and understanding of the following principles. Understand these principles in relation to at least <b>one</b> material category or system.</i>  <i>Stock forms types and sizes; Scales of production; Specialist Techniques and processes; Surface Treatments and finishes</i></p> <p><b>Designing &amp; Making Principles</b>                      Mechanisms.                      Investigation primary &amp; secondary data.                      Environmental, Social &amp; Economic Challenge.                      The work of Others: Design Movements.                      The work of Others: Past &amp; Present Designers.                      The work of Others: Past &amp; Present Companies.</p> <p><b>Design Strategies &amp; Communication of design ideas</b>                      Working Drawings; Flow Chart; Gantt Chart.</p> <p><b>Designing Products and Developing prototypes</b>                      focus on the complete the production of a timber and polymer Mechanisms toy.                      Apply elements of the Iterative Design process : produce manufacturing specification; produce prototype.                      Complete joining methods timber and polymer materials.                      Complete surface treatments timber and polymer materials.</p>
<b>Assess</b>	<p><b>Progress Check 2</b>  <b>Approximate Date of Assessment Week Beginning: 17/02/20</b></p> <ul style="list-style-type: none"> <li>• Demonstration of identified sketching processes (project portfolio)</li> <li>• Demonstration of identified skills (prototype development)</li> <li>• Submission of assignments (classwork &amp; homework)</li> </ul>	<p><b>MILESTONE 2</b>  <b>Approximate Date of Assessment Week Beginning: 23/03/20</b></p> <ul style="list-style-type: none"> <li>• Submission - Project portfolio (Application of standard form of communication in Design &amp; Technology )</li> <li>• Submission - timber &amp; polymer prototype</li> <li>• Written Exam - Core &amp; Specialist Principles of Design</li> </ul>



**SUBJECT: Year 10 GCSE: Design & Technology (Creative Technology) - Summer Term**



	<b>Summer Term 1</b>	<b>Summer Term 2</b>
<b>Topic</b>	<p><b>Designing &amp; Making Principles</b>                      Design Strategies                      Selection of material &amp; components                      Tolerances                      Materials Management                      Specialist Tools &amp; Equipment                      Specialist Techniques &amp; Processes</p> <p><b>Exam Skills</b>                      Introduction to Non Exam Assessment</p>	<p><b>Non Exam Assessment</b>  <b>Stage 1 Investigating Design Opportunities Documents</b>                      Students work independently to produce research documents                      Feasibility Study                      Client and User Interview                      Product Analysis 1                      Product Analysis 2                      Environmental Considerations                      Design Brief &amp; Specification</p>
<b>Asses</b>	<p><b>Progress Check 3</b>                      : 18/05/20                      Submission of assignments (classwork &amp; homework)</p>	<p><b>MILESTONE 3</b>  <b>Approximate Date of Assessment Week</b></p> <ul style="list-style-type: none"> <li>• Y10 Exam W/C 15/06/20</li> <li>• Submission Stage 1 Non Exam Assessment Documents 13/07/20</li> </ul>

**SUBJECT: Year 10 GCSE: Design & Technology (Creative Technology)**



	<b>Topic</b>	<b>Assessment</b>
<b>Autumn Term 1</b>	<ul style="list-style-type: none"> <li>• Core Technical Principles of Design</li> <li>• Designing &amp; Making Principles</li> <li>• Design Strategies &amp; Communication of design ideas</li> <li>• Designing Products and Developing prototypes</li> <li>• Bespoke metal based decorative item</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration of identified sketching processes (project portfolio)</li> <li>• Demonstration of identified skills (prototype development)</li> <li>• Submission of assignments (classwork &amp; homework)</li> <li>• Submission - Project portfolio (Application of standard form of communication in Design &amp; Technology )</li> <li>• Submission - completed metal based prototype</li> <li>• Written Exam -Core Technical Principles of Design</li> </ul>
<b>Autumn Term 2</b>		
<b>Spring Term 1</b>	<ul style="list-style-type: none"> <li>• Specialist Technical Principles of Design</li> <li>• Designing &amp; Making Principles</li> <li>• Design Strategies &amp; Communication of design ideas</li> <li>• Designing Products and Developing prototypes</li> <li>• Batch Production Timber &amp; Polymer Mechanical Toy</li> </ul>	<ul style="list-style-type: none"> <li>• Demonstration of identified sketching processes (project portfolio)</li> <li>• Demonstration of identified skills (prototype development)</li> <li>• Submission of assignments (classwork &amp; homework)</li> <li>• Submission - Project portfolio (Application of standard form of communication in Design &amp; Technology )</li> <li>• Submission - timber &amp; polymer prototype</li> <li>• Written Exam - Core &amp; Specialist Principles of Design</li> </ul>
<b>Spring Term 2</b>		

<p><b>Summer Term 1</b></p>	<p><b>Designing &amp; Making Principles</b>  Design Strategies  Selection of material &amp; components  Tolerances  Materials Management  Specialist Tools &amp; Equipment  Specialist Techniques &amp; Processes</p> <p><b>Exam Skills</b>  <b>Introduction to Non Exam Assessment</b></p>	<ul style="list-style-type: none"> <li>• <b>Submission of assignments (classwork &amp; homework)</b></li> <li>• <b>Y10 Exam W/C 15/06/2020</b></li> <li>• <b>Submission Stage 1 Non Exam Assessment Documents 12/07/2020</b></li> </ul>
<p><b>Summer Term 2</b></p>	<p><b>Non Exam Assessment</b>  <b>Stage 1 Investigating Design Opportunities Documents</b>  Students work independently to produce research documents  Feasibility Study  Client and User Interview  Product Analysis 1  Product Analysis 2  Environmental Considerations  Design Brief &amp; Specification</p>	