

# Technology-Product Design - Outline for Year 7,8,9

	Core learning	Challenge or extension learning	Key assessment tasks for KS3
<b>Year 7 First Rotation</b>	<p style="text-align: center;"><u>Logos and Symbols</u></p> <ul style="list-style-type: none"> <li>Design &amp; Make a simple electronic product</li> <li>Workshop Safety</li> <li>Introduction to basic CAD/CAM techniques</li> <li>Temporary fixings</li> <li>Designing for yourself</li> <li>Using 2D Design to design and manufacture a clock face</li> </ul>	<ul style="list-style-type: none"> <li>Looking at similar existing products and designing a set of products</li> <li>Technology vocabulary tasks</li> <li>Produce a poster about the laser cutter</li> </ul>	<ul style="list-style-type: none"> <li>Plastics test</li> <li>Quality of Final Outcome</li> <li>Evaluation</li> </ul>
<b>Yr7 Second Rotation</b>	<p style="text-align: center;"><u>Coat of Arms (cross curricular HIST)</u></p> <ul style="list-style-type: none"> <li>Introduction to soldering and basic electronic component assembly</li> <li>Exploded Views</li> <li>Designing a base and housing for the electronics</li> <li>Construction of a simple frame using housing joints or vacuum forming</li> <li>Cutting and shaping wire</li> <li>Use of pillar drill</li> <li>Use of Serif to design outline shapes for a backboard</li> <li>Surface decoration using water based paint</li> <li>Designing with others - paired</li> </ul>	<ul style="list-style-type: none"> <li>Ergonomic design</li> <li>Turning plastics on the lathe</li> <li>Memphis Group</li> <li>Promoting an event</li> </ul>	<ul style="list-style-type: none"> <li>Electronics test</li> <li>Successful product outcome – fitness for purpose</li> <li>Peer review</li> </ul>
<b>Yr 8 First Rotation</b>	<p style="text-align: center;"><u>Dino's Diner Pop-up Menu</u></p> <ul style="list-style-type: none"> <li>Initial ideas using Solid Works or Sketch Up</li> <li>Developing ideas through modelling</li> <li>Developing a working drawing</li> <li>Creating a cutting list</li> <li>Joining techniques for metal</li> <li>Filing, smoothing and surface finishes for metal</li> <li>Designing for a place</li> </ul>	<ul style="list-style-type: none"> <li>Develop a design for a copper- enamelled brooch.</li> <li>Architecture case study and structure</li> <li>Outdoor metalwork and sculpture</li> </ul>	<ul style="list-style-type: none"> <li>Metals test</li> <li>Stability and aesthetics of final outcome</li> <li>Presentation photo and evaluation</li> </ul>
<b>Yr 8 Second Rotation</b>	<p style="text-align: center;"><u>Radio Station Branding</u></p> <ul style="list-style-type: none"> <li>Creating designs inspired by the work of artists like Hepworth and Gaudi</li> <li>Recycling textiles and corrugated cards</li> <li>Fabric construction</li> <li>Environmental issues</li> <li>Group work emphasis</li> </ul>	<ul style="list-style-type: none"> <li>STEP activities -Waste to Wear</li> <li>Fact file based on related web links and personal research</li> </ul>	<ul style="list-style-type: none"> <li>Textiles test</li> <li>Finished</li> <li>Presentation on eco friendly fashion accessories</li> </ul>

<p><b>Yr 9 First Rotation</b></p>	<p><u>Set Design (cross curricular - ENG)</u></p> <ul style="list-style-type: none"> <li>• Intermediate circuit soldering</li> <li>• Component recognition and use of circuit diagrams</li> <li>• Product Analysis of lights</li> <li>• ACCESSFM to produce specification</li> <li>• Housing design</li> <li>• Orthographic drawings</li> <li>• Use of circuit wizard electronics software</li> <li>• 6 R's and Sustainability</li> </ul>	<ul style="list-style-type: none"> <li>• Solar adaptations</li> <li>• STEP online activities</li> <li>• Lighting timeline</li> </ul>	<ul style="list-style-type: none"> <li>• Tool theory test.</li> <li>• Quality of soldering</li> <li>• Extent and success of specification</li> </ul>
<p><b>Yr 9 Second Rotation</b></p>	<p><u>Kites</u></p> <ul style="list-style-type: none"> <li>• Designing "in the style of"</li> <li>• Investigating jewellery findings</li> <li>• Developing a variety of ideas</li> <li>• Simplifying existing designs to make them suitable for casting.</li> <li>• Using CAD/CAM to cut and engrave a mould</li> <li>• Casting pewter and surface finishing</li> <li>• Production line manufacturing - teamwork</li> </ul>	<ul style="list-style-type: none"> <li>• Casting in industry and scales of production.</li> <li>• Other materials used in casting</li> <li>• Be enterprising challenge</li> </ul>	<ul style="list-style-type: none"> <li>• Processes and Materials test</li> <li>• Breadth of initial design ideas</li> <li>• Quality of finished outcomes.</li> </ul>
<p><b>End of KS3</b></p>			