

## ASHTON COMMUNITY SCIENCE COLLEGE: ART, CRAFT & DESIGN

Year 8				
	September – February half term – two week timetable		February half term - Summer– two week timetable	
	Part A (RJS)	Part B (JCR)	Part A (RJS)	Part B (JCR)
<b>Knowledge</b>	<p><b>Electronic and mechanical Systems CAD/CAM</b></p> <p>Select appropriate methods to evaluate their products in use and modify them to improve performance</p> <p>How to use simple electronic circuits incorporating inputs and outputs</p> <p>Understand how more advanced mechanical systems used in their products enable changes in movement and force</p>	<p><b>Graphics - Papers &amp; boards</b></p> <p>Problem with plastics</p> <p>Functions of packaging</p> <p>Logo designs</p> <p>Ergonomics &amp; Anthropometrics</p> <p>Tera Pak</p> <p>Environment – recycling</p> <p>Net design</p>	<p><b>D&amp;T – Materials timber, metals, plastics, Smart materials</b></p> <p>Generating ideas and developing into a product.</p> <p>Basic ordering of processes to construct a product.</p> <p>Learn how to analyse products.</p> <p>How existing product can be a rich source of information.</p> <p>Match and select suitable materials considering their fitness for purpose.</p> <p>Make use of specialist equipment to mark out materials</p> <p>Follow procedures for safety and understand the process of risk assessment</p> <p>Use a range of manufacturing techniques including handcraft skills and machinery to manufacture products precisely</p> <p>How to classify materials by structure e.g. hard woods, soft woods, ferrous and non-ferrous, thermoplastic and thermosetting plastics</p> <p>■</p>	<p><b>Food</b></p> <p><u>Food Provenance</u></p> <p><b>The Environment</b> Farming methods – eggs.</p> <p>Dairy industry.</p> <p>Staple foods around the world</p> <p>Baking methods</p> <p>Raising agents</p>

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<b>Skills/ application of knowledge</b>	To use the soldering equipment safely and correctly to: Cut and strip wire, Apply solder to wire, Apply solder to copper tracking To create a working circuit with a selection of components	Logo design Product design Intended user Designing own nets	To use the workshop tools and equipment to: Cut with a coping saw and tenon saw, Smoothing with a file, drill using a pillar drill and smooth surfaces using the sanding machine, Joining with the hot glue gun, to apply a finish, join wood using temporary fixings, to measure and mark out wood and plastic	Weighing, measuring Use of hob, grill and oven. 1. Scrambled egg on toast 2. Potato wedges 3. Scones 4. Bread 5. Pizza
<b>Links to prior learning</b>	Year 7 Curriculum Y7 H&S	Year 7 Curriculum Y7 H&S	Year 7 Curriculum Y7 H&S	Year 7 Curriculum Y7 H&S Y7 Pasta Salad/ Stir Fry – knife skills Y7 EatWell Guide Y7 Growing vegetables
<b>assessment</b>	<b>Fidget board systems &amp; control:</b> Assessment linked to learning outcomes. <b>DC1 PROVE IT – I can</b> independently manufacture and assemble a functioning electronic product.	<b>Drink Carton packaging design:</b> <b>DC1 PROVE IT – I can</b> make a model of my design ideas taking into consideration research completed.	<b>Fidget board construction:</b> Assessment linked to learning outcomes. <b>DC2 PROVE IT – I can</b> independently manufacture and assemble a functioning product.	<b>Product made from locally resourced produce:</b> <b>DC2 PROVE IT – I can</b> design and make a product demonstrating safe working practice.
essential knowledge/ 'I can...' phrases	<b>DESIGN</b> - I can accurately plan and design an idea for functioning product. <b>MAKE</b> - I can manufacture a device using a selection of mechanical and electronic systems. <b>EVALUATE</b> - I can use feedback from my evaluation to improve and develop my work <b>TECHNICAL KNOWLEDGE</b> - I can explain the function of a selection of electronic components and mechanical systems. <b>DC1 PROVE IT – I can</b> independently manufacture	<b>DESIGN</b> - I can demonstrate the importance of a good logo design. <b>MAKE</b> - I can make a net that resembles my design. <b>EVALUATE</b> - I can use feedback from my evaluation to improve and develop my work. <b>TECHNICAL KNOWLEDGE</b> - I can demonstrate my technical knowledge of graphics – paper and board. <b>DC1 PROVE IT – I can</b> make a model of my design ideas	<b>DESIGN</b> - I can accurately plan and design an idea for functioning product. <b>MAKE</b> - I can manufacture a product using a selection of materials. <b>EVALUATE</b> - I can use feedback from my evaluation to improve and develop my work <b>TECHNICAL KNOWLEDGE</b> - I can explain the characteristics and properties of a variety of materials. <b>DC2 PROVE IT – I can</b> independently manufacture and assemble a functioning product.	<b>DESIGN</b> - I can design a product using my knowledge of the Eatwell guide using locally sourced produce. <b>MAKE</b> - I can produce a product demonstrating safe use of baking methods. <b>EVALUATE</b> - I can use feedback from my evaluation to improve and develop my work. <b>TECHNICAL KNOWLEDGE</b> - I can explain the importance of a balance diet in reference to the Eat Well Guide and apply this knowledge when developing recipes.

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