

A&T KS3 Product Design - Curriculum Map 2017-18

Year	Project Area	Project Outline	Time	Outcome	Assessment
Yr7 Project Title: Lego Man					
7	Health and safety and equipment introduction	Introduction to the workshop including safety. Introduction to the use of small equipment and what the equipment is used for.	1 lessons	Health and safety mind map and worksheet Tools and equipment worksheet	Correct identification of potential hazards around the room and with the equipment which will be used.
7	Introduction to product design equipment	Students will use knowledge from previous lesson to select and use appropriate equipment to complete a range product design equipment charts	1 lessons	Identify of a range of product design equipment and complete a sample of using the equipment safely	Self-assessment questions and peer assessment of finished outcome.
7	Brief analysis	Students are taught how to analyse a simple brief.	1 lesson	Identify the key points of a brief and give a simple explanation of the reason for a brief and the function for a brief	Independence and understanding shown when analysing a piece of work
7	Spider chart ideas page	Students will be introduced to using a spider chart to explore design possibilities	1 lessons	To use the key words and the brief to develop design ideas	Completed research task.
7	Write a simple specification	Students are taught how to use design development and the brief to formulate a specification	1 Completed research task with clear findings.lessons	To complete the specification work sheet using the brief and the design ideas to help identify and explain the specification considerations	Independence and understanding shown when using the formulating a design brief or specification
7	Rendering skills	Students will learn how to enhance design ideas in monochrome and colour	1 lessons	Students will be able to identify the key points on how to render a design and use the knowledge and skills learned to create a quality piece of rendering work	Independence and understanding shown when identifying and using rendering techniques
7	Final design idea	Students use their design ideas to formulate their final design choice	1 lessons	Students will be able to use design skills to complete their final design idea	

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7	Practical	Student use their final design idea to start work on their Lego product. Cutting out the template and gluing it to the work material.	4 lessons	Students learn the value of using a template, and how to interpret a design idea in practice and to use tools safely	Ideas/ designs
7	Making log	Students complete the manufacturing log	1 lesson	Students identify strengths and weaknesses with the making of their Lego Man and are able to give a simple explanation of what they have done and how work can be improved	Independent and team use of knowledge
7	Evaluation	Students will evaluate their own work and assesses the work of others.	1 lessons	Detailed evaluation with suggested improvements and future targets.	Critical and detailed evaluation.
Yr 7 Project Title: Packaging					
7	Packaging production techniques	Students will be Introduction to packaging production techniques	1 lessons	Identify the different methods and complete the worksheet	Health and safety awareness Analysis of different production methods
7	Spider chart	Students Use a spider chart to help identify the key features of packaging	1 lessons	Complete the packaging research spider chart to identify key areas of the features of packaging	Independence and understanding shown by the knowledge gained of what a package must do and must have
7	Design ideas	Students will create a selection of packaging design ideas	2 lessons	Complete the two design ideas to a high level of rendering skills, demonstrating a clear knowledge of what must be included into the design work	Completion of design sheets.
7	Vacuum forming	Students will watch teacher demonstration and then produce a vacuum formed blister pack for their packaging	1 lessons	Students to work safely with the vacuum former and complete their blister pack to a good quality outcome without any distortion or webbing to the plastic	Completion of a blister packaging window
7	Vacuum forming worksheet	Research will be carried out into a range of smart and modern materials. Student will learn about what affects these materials and where they can be used to improve the functionality of a product.	2 lessons	Students are able to use their knowledge and understanding to complete the vac worksheet including the step by step grid	A clear understanding of the vac forming sequence

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Yr8 Project Title: Clock Project					
8	Health and Safety Introduction to project	Introduction to Product Design, course expectations and health and safety. Introduction to the clock brief.	1 lessons	Health and safety task showing awareness and understanding of expectations Brain storm the main features of the brief; target audience, materials, theme, use.	Health and safety awareness Analysis of brief and task.
8	Materials Theory	Students are introduced to the three main groups of materials, looking at their properties and uses.	2 lessons	A broader knowledge of materials and their properties, evidenced through worksheets and assessments in their booklets.	Mini assessment after each material area.
8	Materials testing	Student will complete a series of practical material tests, judging the materials on a variety of physical and mechanical properties	2 lessons	Written evaluation of practical tests, concluding findings and comparing results with others. Samples in books with written evaluation on the method and the outcome.	Completion of worksheet. Outcome of samples and critical evaluation.
8	Product Analysis	Students will watch teacher demonstration and then produce samples of decorative techniques which are available to use on their cushion covers.	1 lessons	Variety of different products analysed in detail giving students a better understanding of expectations of their product.	Quality of written work, quality of analysis on products.
8	Specification	Research will be carried out into a range of smart and modern materials. Student will learn about what affects these materials and where they can be used to improve the functionality of a product. .	1 lessons	Detailed design specification, which makes reference to research findings.	A clear understanding of the purpose of a design specification
8	Initial Designs	Students will analyse research findings and come up with a list of design criteria to ensure their finished product meets the requirements of the brief and the intended user.	2 lessons	A range of different designs reflecting the research carried out, both will meet the requirements of the brief.	Peer assessment on quality of drawings and creativity of designs
8	Final design	Students work towards completing their practical outcome.	1 lessons	The design must be fully coloured and annotated to outline their understanding of the materials.	Comparison of initial designs to show development from peer feedback. comparison against specification.
8	Practical	Students will evaluate their own work against their specification and peer assesses the work of others.	7 lessons	Accurate practical outcome and complete manufacturing log.	Practical outcome against specification and final design.
8	Evaluation	Students will evaluate their own work against their specification and peer assesses the work of others.	1 lessons	Detailed evaluation with suggested improvements and future targets.	Critical and detailed evaluation.
8	Smart materials	Students will evaluate their own work against their specification and peer assesses the work of others.	2 lessons	Students will use their knowledge of smart materials to come up with a unique design incorporating 3 or more smart or modern materials.	A clear understanding of a range of smart and modern materials.