

Design & Technology Module: Graphics Year 7				
	Topic / Theme	Knowledge and Skills	Assessment	Cultural Capital Independent Learning
Autumn – Term One	<p>Project: <i>Sweets Packaging</i></p> <p>This is the first project in the Graphics module. Students will design & manufacture packaging for a new design of sweets from 1Ply card and PET plastic. This project enables students to research and apply design influences whilst considering the needs of the user through different advertising strategies. Design layout, typographical skills and material knowledge are learned. Students will learn about a range of different design strategies from different designers and the different functions that packaging serves.</p>	<p>Designing: D1,2,3,5 Students develop an understanding of designing packaging for different products) & different user groups, and use design briefs to generate ideas to meet these needs. 2D & 3D designs are generated using different approaches & presented using a range of formats including modelling, 3D CAD, and annotated sketches. D1, D2, D3 and D5.</p> <p>Making: M1 Students use graphic planning and marking out strategies including construction lines. Learning about vacuum forming plastic and accurate cutting and finishing. M1</p> <p>Evaluate: E1 - 4 Students Investigate and learn about historical and contemporary designs Self and peer assessment to inform design improvements leading to a final product. Learning about carbon emissions and the effects of global warming through</p>	<p>F = Foundation C = Core A = Advanced E = Exceptional</p> <p><u>Design Assessment Criteria coverage</u></p> <p>F Identify a design need and demonstrate a solution. Can use existing products to aim suitable design solutions.</p> <p>C Able to present different design solutions from appropriate product analysis to a design problem and think of further improvements.</p> <p>A Produce a range of appropriate design solutions that address the needs of the user effectively following research. Ideas are presented with detailed annotation using graphical drawing strategies including appropriate 3D CAD modelling.</p> <p>E Use product analysis and studies of different cultures to develop needs & specifications. Generate designs with consideration of social, moral, environmental or sustainability issues. Use modelling (including competent 3D CAD skills) to develop designs into a chosen solution.</p>	<p><u>Independent learning</u> Students are expected to create and develop designs (images & practically) independently with varying degrees of innovation and flair.</p> <p>Students will develop problem solving skills through independent learning, especially in a practical context. Research into materials, concepts and the work of past and present designers will develop the students’ ability to work independently.</p> <p><u>Cultural Capital</u> Students will gain an awareness of the work of past & present designers and how the designs and work of individuals influence society and ensuring students have an understanding of Britain’s</p>

	<p>Topics / Themes addressed Hyperlink to topics D1 – Designing: Research & Exploration. D2 – Designing: Identifying & solving design problems: D4 – Develop and communicate design ideas using annotated sketches, detailed plans, 3D and mathematical modelling, oral and digital presentations and computer based tools. D5 – Designing: Design approaches & communicating designs.</p> <p>M1 Making: Using Specialist tools, equipment, techniques, processes</p> <p>M2 Making: Selecting and using materials</p> <p>E1 – Evaluate: Analysing the work of past & present professionals. E2 – Investigate new and emerging technologies. E4 – Understand developments in design and technology, its impact on individuals, society and the environments and the responsibilities of designers, engineers and technologists. TK1 / M2: Selecting, understanding and using materials</p>	<p>the manufacture, use and disposal of products. E1 – E4</p> <p>Technical Knowledge: TK1 Students will gain knowledge of the properties of paper, boards and PET plastic and their environmental impact. TK1.</p>	<p>Formative assessment of Designing Packaging design and completed model Packaging design 3D CAD Van graphics design and completed NET model. Van design 3D CAD.</p> <p>Making Assessment Criteria coverage F With assistance, carry out some practical work safely, showing some basic skills. C Identify tools and equipment and carry out practical work safely and independently, demonstrating skills in a few processes, including CAD. A Identify main stages and equipment to make products. Make products correctly and accurately with a variety of tools or processes, including CAD. E Produce instructions for making a product which include alternative tools and processes to use and some quality control checks. Assemble and make products with accuracy that offer some challenge, demonstrating good skills in the use of a wide variety of tools or processes, including CAD.</p> <p>Formative assessment of Making Main PET and CARD packaging. ICT inclusion of design development.</p>	<p>contemporary design practice and design heritage, as well as a knowledge of international design practice. We encourage wider reading and the exploration of academic theory of design. Students will gain experience in the use of equipment to enrich their understanding of technology, including the use of laser cutting, 3D printing, CNC use and computer aided design. Extra curricula clubs and access to industrial partners / STEM organisations will provide access to skills development, industrial developments, technological advancements, environmental and economic factors, the role of sustainability and ethics in user-centred design, demographic change and sociocultural influences around the world in order to visualise future possibilities and guide career opportunities.</p>
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Design & Technology				
Year 7			Module: Graphics	
	Topic / Theme	Knowledge and Skills	Assessment	Cultural Capital Independent Learning
Autumn – Term Two	<p>Project: <i>Van Graphics</i></p> <p>This is the second project in the Graphics module. Students will be producing graphics advertising for a commercial vehicle. The project focuses on the development of a range of different skills learned in project 1. Students work within the constraints of a NET shape design and use construction lines to map out and mark-out images and text to the sides of the design. Students will then add the detail requirements of a specification to complete the design. Use of score lines for accurate folds and creation of the 3D model will be completed.</p> <p>Topics / Themes addressed <i>Hyperlink to topics</i> D1 – Designing: Research & Exploration.</p>	<p>Designing: Students develop an understanding of the different types and methods of advertising used on vehicles. Graphic hand and CAD generated ideas are developed. Specification criteria requirements used to meet the needs of the user. D1, D2, D3 and D5.</p> <p>Making: Students use a range of graphical techniques to produce and present the advertising within the constraints of the van NET shape. Use of score lines, cutting, folding and accurate assembly. M1</p> <p>Evaluate: Self and peer assessment at key stages to inform improvements. Group presentation and evaluation. E1 – E4</p> <p>Technical Knowledge: Students will develop knowledge of material properties and sustainability issues. TK1</p>	<p>F = Foundation C = Core A = Advanced E = Exceptional</p> <p>Design Assessment Criteria coverage F Produce designs to solve a need. C Able to identify some design needs and produce designs to solve a need, or design task and think of some improvements. A Able to identify needs, problems and constraints, and produce a range of design solutions. Ideas are presented using 3-D drawing, CAD and some modelling. E Use product analysis and studies of different cultures to develop needs & specifications. Generate designs with consideration of social, moral, environmental or sustainability issues. Use modelling (including CAD) to develop designs into a chosen solution.</p> <p>Formative assessment of Designing Van Graphics (2D / 3D + CAD) Van Model – Accuracy of NET construction from 2D to 3D.</p>	<p>Independent learning Students are expected to create and develop designs independently with varying degrees of innovation and flair. Students will work independently during manufacturing to develop problem solving skills and confidence by using power machinery and in a general practical context. Research into materials, concepts, and the work of past and present designers, will develop the students’ ability to work independently.</p> <p>Cultural Capital Students will gain an awareness of the work of past & present designers and how the designs and work of individuals influence society and ensuring students have an understanding of Britain’s</p>

	<p>D2 – Designing: Identifying & solving design problems:</p> <p>D4 & D5 – Designing: Design approaches & communicating designs.</p> <p>M1 Making: Using Specialist tools, equipment, techniques, processes</p> <p>M2 Making: Selecting and using materials</p> <p>E1 – Evaluate: Analysing the work of past & present professionals.</p> <p>E3 – Evaluate: Testing and Evaluation</p> <p>TK1 / M2: Selecting, understanding and using materials</p>		<p><u>Making Assessment Criteria coverage</u></p> <p>F With assistance, carry out some practical work safely, showing some basic skills.</p> <p>C Identify tools and equipment and carry out practical work safely and independently, demonstrating skills in a few processes, including CAM.</p> <p>A Identify main stages and equipment to make products. Make products correctly and accurately with a variety of tools or processes, including CAM.</p> <p>E Produce instructions for making a product which include alternative tools and processes to use and some quality control checks. Assemble and make products with accuracy that offer some challenge, demonstrating good skills in the use of a wide variety of tools or processes, including CAM.</p> <p><u>Formative assessment of Making</u> Van Graphics- accuracy & style</p> <p><u>Evaluating Assessment Criteria coverage</u></p> <p>F Recognise a few ways in which a product could be improved.</p>	<p>contemporary design practice and design heritage, as well as a knowledge of international design practice. We encourage wider reading and the exploration of academic theory of design. Students will gain experience in the use of equipment to enrich their understanding of technology, including the use of laser cutting, 3D printing, CNC use and computer aided design. Extra curricula clubs and access to industrial partners / STEM organisations will provide access to skills development, industrial developments, technological advancements, environmental and economic factors, the role of sustainability and ethics in user-centred design, demographic change and sociocultural influences around the world in order to visualise future possibilities and guide career opportunities.</p>
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