

AQA Product Design GCSE 4555						
	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Unit title	Packaging, Branding, Paper and Card	Materials	Design and Make	Controlled Assessment Tasks (Research)	Controlled Assessment Tasks (Design)	Controlled Assessment Tasks (Making)
Exam requirements	<p>Evolution of Product Design Candidates should:</p> <ul style="list-style-type: none"> • identify ways in which products evolve over time • have a basic knowledge and understanding of major design movements since 1900 <p>Paper/card When working with paper/card materials candidates should: be able to identify common papers</p> <ul style="list-style-type: none"> • understand the different properties and uses of such materials • understand the stock forms for paper/card materials • have a basic understanding of the source of pulp and the primary processes involved in conversion to workable materials. 	<ul style="list-style-type: none"> • Classification and working properties of materials <p>Designing Skills Candidates should be taught to:</p> <ul style="list-style-type: none"> • Consider the conflicting demands that moral, cultural, economic, and social values and needs can make in the planning and in the designing of products. • consider environmental and sustainability issues in designing products • consider health and safety in all its aspects • anticipate and design for product maintenance where appropriate • design for manufacturing in quantity and to be aware of current commercial/industrial processes 	<p>Designing Skills Candidates should be taught to:</p> <ul style="list-style-type: none"> • be creative and innovative when designing; design products to meet the needs of clients and consumers • understand the design principles of form, function and fitness for purpose • develop and use design briefs and specifications for product development • generate design proposals against stated design criteria, and to modify their proposals in the light of on-going analysis, evaluation and product development • reflect critically when evaluating and modifying their design ideas and proposals in order to improve their products throughout inception and manufacture 	<ul style="list-style-type: none"> • Show discrimination when selecting and acquiring relevant research that will • Originality in designing • Understanding and analysis of the design context • Detailed analysis of relevant existing products or systems undertaken related to • design intentions • Comprehensive analysis of relevant and focussed research undertaken • Clear and specific design criteria identified, reflecting the analysis undertaken • Target market identified and the intended consumer/user profiled 	<ul style="list-style-type: none"> • Imaginative and innovative ideas developed, demonstrating creativity, flair and originality. • The implications of a wide range of issues including social, moral, environmental and sustainability, taken into consideration and inform the development of the design proposals • Excellent development work through experimentation with a wide variety of techniques and modelling (including CAD where appropriate) in order to produce a final design solution • Appropriate materials and components selected with full regard to their working properties 	<p>Controlled Assessment Tasks (Make) Making Skills Candidates should be taught to:</p> <ul style="list-style-type: none"> • select and use tools/equipment and processes to produce quality products • consider the solution to technical problems in the design and manufacture process • use tools and equipment safely with regard to themselves and others • work accurately and efficiently in terms of time, materials and components manufacture products applying quality control procedures
Year 10	<p>Recap previous knowledge Product analysis, Product evolution</p> <p>Content: knowledge/ Concepts to be taught.</p> <p>Lesson 1: Introduction to product design. History of Design. Lesson 2: Product evolution. Lesson 3: Drawing/modelling and preparation techniques appropriate to support the D&M assignment Lesson 4: Product analysis using a range of products ACCESS FM, CAFEQUE, etc Lesson 5: Paper & card as a material: classification Lesson 6: Paper & card properties, sources, stock sizes, combinations Lesson 7: Purposes and variety of packaging: Cartons, blister, etc Lesson 8: Branding: Brand loyalty Lesson 9: Assessment</p>	<p>Recap previous knowledge Some information on Materials. Practical skills, cutting and finishing material.</p> <p>Content: knowledge/ Concepts to be taught.</p> <p>Lesson 1: Printing: Lithography, flexography, screen, gravure, etc Die-cutting Lesson 2: Materials (specification chosen material(s): classification, properties, sources, stock sizes, combinations Lesson 3: Wood Lesson 4: Practical skill development :Joining Techniques for wood Lesson 5: Practical skill development : Standard components Lesson 6: Plastic Lesson 7: Practical skill development :Joining Techniques for plastic Lesson 8: Making: Finishing material Lesson 9: Smart and new materials: Applications and influence on new products Lesson 10: Making: Joining</p>	<p>Recap previous knowledge Design Process</p> <p>'Content': skills taught Practical making skills</p> <p>Lesson 1: Introduction to commercial production: scales, organisation, costs, etc Lesson 2: Design Brief Specification and Research Lesson 3: Design Ideas and Design Developments Lesson 4: Design Developments and Final design idea. Lesson 5: Prototype and planning. Lesson 6: CAD Lesson 8-9 Making: Cutting material Lesson 10- Laser cutter</p>	<p>Recap previous knowledge Design Process, Research</p> <p>Lesson 1: Introduction to Controlled Assessment Tasks (CAT) Lesson 2: Research planning for CAT Lesson 3: Sustainability: 6Rs, Green design, product miles, carbon footprint, life cycle, responsibilities, etc Lesson 4: Research analysis Lesson 5: Product analysis Lesson 6: Target market planning Target market survey Lesson 7: Design criteria: ACCESS FM, CAFEQUE, etc Market Pull and Market Push Lesson 10: Human factors: Anthropometrics, ergonomics, special groups, adjustments etc. Lesson 9: Specification Lesson 10: Assessment Lesson 11: Design strategy one (appropriate to CAT)</p>	<p>Recap previous knowledge</p> <p>Lesson1: Idea strategy two (appropriate to CAT) Lesson2: Design ideas Lesson3: Soft modelling demos (appropriate to CAT) Lesson4: Soft modelling ideas Lesson5: Wider issues: Awareness raising Lesson6: Development planning/ skills/ strategies Lesson7: Development of ideas Lesson8: Design proposal: skills/ strategies</p>	<p>Recap previous knowledge</p> <p>10 Lesson spent planning on making the CA practical work.</p>
Assessment	<p>Written exam using past GCSE papers related to packaging, branding and paper and card.</p>	<p>Written exam using past GCSE papers related to materials, sustainability and human factors.</p>	<p>Design & Make assignment focussing on manufacturing in quantity based around the controlled task.</p>	<p>Controlled Assessment Tasks Investigating the design context (8 marks out of 90 marks for CA)</p>	<p>Controlled Assessment Tasks Development of Design Proposal (including modelling) (32 marks out of 90 for CA)</p>	<p>Controlled Assessment Tasks Making (32 marks out of 90 for CA)</p>

Year 11	Controlled Assessment Tasks (Making)	Controlled Assessment Tasks (Testing and evaluating.)	Revision & preparation for final exam	Revision & preparation for final exam	Revision & preparation for final exam	
	Controlled Assessment Tasks (Make) Making Skills Candidates should be taught to: Ensure, through testing, modification and evaluation, that the quality of their products is suitable for intended users and devise modifications where necessary that would improve the outcome(s).	Controlled Assessment Tasks (Testing and Evaluation)	Revision: Commercial Production	Design and Make: Manufacturing	Revision	
	Recap previous knowledge Model Making 10 Lesson spent planning on making the CA practical work.	Making/testing. Candidates working independently Testing: strategies CAT review/ feedback Final review	Lesson 1: Product maintenance Lesson 2: Quality: QA/ QC, tolerance, manufacturing. Spec Lesson 3: ICT in manufacturing: JIT, automation Lesson 4:: ICT in manufacturing Lesson 5: Consumer issues: fair testing, quality, standards, consumer groups, etc Lesson 6: Safety: own and users Lesson 7:Risk assessment	Recap previous knowledge Manufacturing methods Revision topics: Design movements Classic design/ retro design Consumer issues Packaging: Design practice/ revision Materials and components Design question feedback Manufacturing in school - practical team work -sequencing tasks, organisation of resources, QA, H&S, etc	Recap previous knowledge The topics listed below will be covered throughout the CAT Product analysis: target markets, evolution, new technologies, etc Exam summary of what to expect, strategies such as mark a minute, resources which are in room, etc Revision topics: Industrial production ICT in manufacturing revision Human factors Sustainability	
Assessment	Controlled Assessment Tasks Making (32 marks out of 90 for CA)	Controlled Assessment Tasks Testing and Evaluation (12 marks out of 90 for CA)	Written Exam on manufacturing products, organisation of equipment and labour and relate to industrial production examples. Possibly combine with factory visit.	Preparation for design question based on pre-release sheet. Practice question based on specimen paper	Preparation for design question based on pre-release sheet. Practice question based on specimen paper	