

NEW	Research & Investigating	Development of Design Proposals	Making	Testing & Evaluation
	the Design Context	(Inc. Modelling)		
	The student displays:	The student displays:	The student produces:	The student evidences:
9	 A highly independent and personal investigation of the chosen topic. A design context that has 	 An independent approach to all aspects listed below. A complete range of imaginative and innovative ideas that have been 	 Work that has required the use of equipment beyond that of the classroom. Work that represents commercial 	 Testing that has taken place at a commercial level. An improvement plan for the product based upon the
	been analysed in great detail with all aspects covered An original piece of	developed, demonstrating creativity, flair and originality. Further developments made to take account of ongoing research.	quality and viability. - Work that clearly defines the user and the product is tested within its intended market. 100% Independence	findings of the commercial testing. - A new CAD development based upon evaluation of testing,
	complete research that is non-bias towards a desired outcome.	 A coherent and appropriate design strategy, with clear evidence of a planned approach, adopted 	throughout the project.	highlighting the key component changes.
	 Excellent understanding and analysis of the design context. 	throughout. - The implications of all issues including social, moral,		
	 A complete analysis of relevant existing products or systems undertaken related to design intentions. 	environmental and sustainability, are taken into consideration and inform the development of the design proposals. - Excellent development work through		
	Comprehensive analysis of relevant and focussed research undertaken. Clearly identified and	experimentation with a wide variety of techniques and modelling (including CAD where appropriate) in order to produce a final design		
	specific design criteria,	solution.		



NEW	Research & Investigating the Design Context	Development of Design Proposals (Inc. Modelling)	Making	Testing & Evaluation
	The student displays: reflecting the analysis undertaken.	The student displays: - The use of appropriate materials and components that have been selected with full regard to their working properties. - A fully detailed and justified product/manufacturing specification taking full account of the analysis undertaken.	The student produces:	The student evidences:
8	 Discrimination when selecting and acquiring relevant research that will promote originality in designing. An excellent understanding and analysis of the design context. A detailed analysis of relevant existing products or systems undertaken related to design intentions. Comprehensive analysis of relevant and focussed research undertaken. A Clearly identified and 	 A wide range of Imaginative and innovative ideas have been developed, demonstrating creativity, flair and originality. Further developments made to take account of ongoing research. A coherent and appropriate design strategy, with clear evidence of a planned approach, adopted throughout. Evidence that the have considered the implications of a wide range of issues including social, moral, environmental and sustainability, are taken into consideration and inform the development of the design proposals. Excellent development work through 	 A final outcome(s) that shows a very high level of making/modelling/finishing skills and accuracy. An ability to select and use appropriate tools, materials and/or technologies including, where appropriate, CAM correctly, skilfully and safely; beyond what may be available within school. (if required) Work independently to a rigorous and demanding outcome. Evidence of quality controls throughout the project and it is clear how accuracy has been achieved. An outcome that has the potential to be commercially viable and is suitable for the target market. 	 Detailed testing and evaluation as appropriate throughout the designing and making process taking account of client/user or third party opinion. All aspects of the final outcome that has been tested against the design criteria and/or the product/manufacturing specification. And justifies the need for modifications to the product and consideration given as to how the outcome might need to be modified for commercial production.



NEW	Research & Investigating	Development of Design Proposals	Making	Testing & Evaluation
	the Design Context	(Inc. Modelling)		
	The student displays:	The student displays:	The student produces:	The student evidences:
	specific design criteria that reflecting the analysis undertaken An identified target market that has the intended consumer/user clearly profiled.	experimentation with a wide variety of techniques and modelling (including CAD where appropriate) in order to produce a final design solution. - Evidence that the appropriate materials and components have been selected with a full regard to their working properties. - A fully detailed and justified product/manufacturing specification taking full account of the analysis undertaken.		
7	 Some discrimination shown when selecting and acquiring relevant research that will promote originality in designing. A very good understanding and analysis of the design context. A detailed analysis of relevant existing products or systems undertaken 	 Imaginative and innovative ideas that have been developed, demonstrating creativity, flair and originality. Further developments made to take account of ongoing research. An appropriate design strategy, with clear evidence of a planned approach, adopted throughout. Evidence that the implications of a range of issues including social, moral, environmental and sustainability, are taken into consideration and inform the 	 A final outcome(s) that shows a high level of making/modelling/finishing skills and accuracy. The ability to select and use appropriate tools, materials and/or technologies including, where appropriate, CAM correctly, skilfully and safely. Work independently and achieves a demanding outcome. Evidence of quality controls throughout the project and it is clear how accuracy has been achieved. 	 Detailed testing and evaluation as appropriate throughout the designing and making process taking account of client/user or third party opinion. All aspects of the final outcome have been tested against the design criteria and/or the product. And justifies the need for modifications to the product and consideration given as to how the outcome could be



NEW	Research & Investigating the Design Context	Development of Design Proposals (Inc. Modelling)	Making	Testing & Evaluation
	The student displays: related to design intentions. - A very good analysis of relevant and focussed research undertaken. - A Clearly identified design criteria, reflecting the analysis undertaken. - An identified target market with the intended consumer/user profiled.	The student displays: development of the design proposals. Very good development work through experimentation with a wide variety of techniques and modelling (including CAD where appropriate) in order to produce a final design solution. The uses of appropriate materials and components have been selected with full regard to their working properties. A detailed and justified product/manufacturing specification taking full account of the analysis undertaken.	The student produces: - An outcome that has the potential to be commercially viable and is suitable for the target market.	The student evidences: modified. A high level of questioning that has been applied to the process. A very high level of questioning that has been applied to the process.
6	 A good understanding and analysis of the design context. A good analysis of relevant products or systems undertaken. A good analysis of relevant research and context used to develop ideas. 	 Imaginative ideas that demonstrate a degree of creativity, which are further developed to take account of ongoing research. An appropriate design strategy, with evidence of planning, adopted for all aspects. Development of design proposals that take into account the main aspects relating to a variety of social, 	 A final outcome that shows a very good level of making/modelling, with a high level finish. The ability to select the appropriate tools, materials and/or technologies including, where appropriate, CAM correctly and safely. Work with an outcome that demonstrates a very high level of demand. 	 Appropriate testing and evaluation evident throughout the designing and making process. Most aspects of the final outcome that have been tested against the design criteria. And justifies the need for improvements or modifications to the product.



NEW	Research & Investigating	Development of Design Proposals	Making	Testing & Evaluation
	the Design Context	(Inc. Modelling)		
	The student displays: - A design criteria that	The student displays: moral, environmental and	The student produces: - Evidence of quality control checks that	The student evidences: - A high level of questioning that
	reflects the analysis	sustainability issues.	have been applied in the manufacture	has been applied to the
	undertaken.	- Good development work achieved	of the product.	process.
	 Research that identifies the target market for 	through working with a variety of techniques and modelling (including	An outcome that is suitable for the target market and could be	
	product.	CAD where appropriate).	commercially viable with further	
		- Evidence that appropriate materials	development.	
		and components have been selected with regard to their working		
		properties.		
		- A product/manufacturing		
		specification that is complete and reflects key aspects of the analysis		
		undertaken.		
5	- An understanding of	- Imaginative ideas that demonstrate a	- A final outcome that shows good level	- A good amount of quality
	analysis and the design context is good in parts.	degree of creativity and good development.	of making/modelling/finishing skills. The ability to select and use the	questioning and testing is evident throughout the
	- Analysis of relevant	- An appropriate design strategy, with	appropriate tools, materials and/or	designing and making process.
	products or systems has	evidence of planning, adopted for	technologies including, where	- Most aspects of the final
	been undertaken and	most aspects.	appropriate, CAM correctly and safely;	outcome that have been tested
	used in parts Analysis of relevant	Development of design proposals that take into account some of the	with minimal assistance. - Work with an outcome that	against the design criteria. The ability to evaluate and
	research and context	main aspects relating to a variety of	demonstrates a high level of demand.	justify the need for
	used to develop ideas.	social, moral, environmental and	- Evidence of quality control checks that	improvements or modifications
	 A design criteria which reflects the analysis 	sustainability issues Good development work achieved	have been applied in the manufacture of the product.	to the product.



NEW	Research & Investigating the Design Context	Development of Design Proposals (Inc. Modelling)	Making	Testing & Evaluation
	The student displays: undertaken. Research that identifies the target market for product.	The student displays: through working with a variety of techniques and modelling (including CAD where appropriate). The use of appropriate materials and components selected with regard to their working properties. A product/manufacturing specification that is complete and reflects all key aspects of the analysis undertaken.	The student produces: - An outcome that is suitable for the target market and could be commercially viable with further development	The student evidences:
4	 A partial understanding and analysis of the design context. Some analysis of multiple related products or systems undertaken. A superficial analysis of most of the research material and the context. A design criteria that reflects most of the analysis undertaken. Research that ensures accurate consideration has been taken of the likely consumer/user. 	 Design ideas that show a degree of creativity and further development. An appropriate design strategy, with some evidence of planning, adopted for some aspects. Developments of design solutions that are influenced to some extent by factors relating to social, moral, environmental and sustainability issues. Good development work achieved through working with a range of techniques and modelling (including CAD where appropriate). Evidence that materials and components have been selected with 	 A final outcome that shows a good level of making/modelling/finishing skills. The understanding to use the appropriate materials, components, equipment and processes correctly and safely (including CAM). An outcome that, in parts, shows good levels of demand. Evidence that they have applied quality control checks broadly but superficially. An outcome that requires further development in order to be completely suitable for the target market. 	 A good level of testing and evaluation leading to the production of the final outcome. Some evidence of testing against the design criteria and/or the product/manufacturing specification. Some improvements or modifications to product suggested. A good level of questioning applied to the process.



NEW	Research & Investigating	Development of Design Proposals	Making	Testing & Evaluation
	the Design Context	(Inc. Modelling)		
	The student displays:	The student displays:	The student produces:	The student evidences:
		some regard to their working properties. - A product/manufacturing specification that reflects most aspects of the analysis.		
3	 A basic understanding and analysis of the design context. Some analysis of related products or systems undertaken. Superficial analysis of some of the research material and the context. A design criteria that reflects some of the analysis undertaken withe some understanding. Some consideration of the likely consumer/user. 	 Design ideas show some degree of creativity and further development. An appropriate design strategy, with some evidence of planning. Some design solutions that are influenced to an extent by factors relating partly to social, moral, environmental and sustainability issues. Adequate development work achieved through working with a range of techniques and modelling (including CAD where appropriate). That the use of materials and components selected were chosen with regard to their working properties. A product/manufacturing specification that reflects some key aspects of their analysis. 	 A final outcome that is complete and represents a basic level of making/modelling/finishing skills. The ability to use materials, components and equipment correctly and safely (including CAM if appropriate). Some aspects of the outcome that are demanding. Some evidence of limited quality control that has applied throughout the process. An outcome that has some weaknesses but it would be suitability for the target market. 	 Some testing and evaluation leading to the production of the final outcome. Some evidence of testing against the design criteria and/or the product/manufacturing specification. Some improvements or modifications to product suggested. A good level of questioning that has been applied to the process.



NEW	Research & Investigating the Design Context	Development of Design Proposals (Inc. Modelling)	Making	Testing & Evaluation
2	The student displays: - Limited understanding or analysis of design context. - Minimal analysis of products or systems undertaken. - Some evidence of research and analysis of the context. - A design criteria that is very general and lacking in understanding. - Limited understanding of the target market/user evident.	The student displays: - Design ideas that show some variation in approach or concept. - A limited design strategy, with minimal planning, is evident. - Some consideration taken of social, moral, environmental and sustainability issue in development of design solutions. - Development work that's lacking in detail but references a number of techniques and modelling (including basic CAD where appropriate). - A selection of materials and components with limited regard to their working properties. - A limited product/manufacturing specification that reflects the most obvious features of analysis.	The student produces: - A final outcome that is largely complete and represents a basic level of making/ modelling/finishing skills. - The ability to use materials, components and equipment correctly and safely (including CAM if appropriate). - Some aspects of outcome that are demanding but they have been assisted with - Some evidence of limited quality control that has been applied throughout the process. - An outcome that has some weaknesses but it may meet the needs of the target market	The student evidences: - Some evidence of basic testing and evaluation throughout the designing and making process. - Basic testing of final outcome against the design criteria and/or the product. - The ability to recognise the need for open questioning.
1	 A very limited understanding or analysis of design context. Minimal analysis of a single products or systems undertaken. Very little evidence of research and analysis of 	 Some design ideas but they are lacking in imagination with minimal development or further research. Little evidence of a logical approach being adopted, with no indication of planning. Development work showing little consideration of social, moral, 	 A final outcome that is incomplete or represents an undemanding level of making/ modelling/finishing skills. The ability to use materials, components and equipment safely under supervision. Work with some assistance to produce an outcome of limited demand. 	 Minimal testing and evaluation throughout the designing and making process. Limited or no testing of final outcome against the design criteria.



NEW	Research & Investigating the Design Context	Development of Design Proposals (Inc. Modelling)	Making	Testing & Evaluation
	The student displays: the context. A design criteria that is very general and lacking in any detail. A very limited understanding of the target market/user evident.	 The student displays: environmental and sustainability issues. A basic level of development work using a limited range of techniques. Materials and components with little regard to their working properties. Produced a simple product/manufacturing specification which is general in nature. 	The student produces: - Limited evidence of any quality control and levels of accuracy are minimal. - An outcome that has some weaknesses which limit its suitability for the target market.	The student evidences:
В	 The ability to gather a variety of relevant research. The ability to provide a written opinion of the research. The ability to produce a basic design criterion. 	 Designs ideas that are lacking in imagination. No evidence of a logical approach being adopted, with no planning. Development work but that shows no consideration of social, moral, environmental and sustainability issues. A knowledge of materials and components but they are selected incorrectly in relation to their properties. 	 Some parts of the final outcome, but it is mainly incomplete or represents an undemanding level of making and /finishing skills. The ability to use some materials, components and equipment safely under close supervision. Work with lots of assistance for an outcome that is of limited demand. Limited evidence of any quality control and levels of accuracy are minimal. An outcome that has significant weaknesses which limit its suitability for the target market. 	 Minimal testing throughout the designing and making process. Limited or no testing of final outcome against the design criteria.
B1	- The ability to gather relevant research in limited quantity.	 The ability to produce a creative design. Little evidence of planning for design 	 A final outcome that is in pieces and not finished. A final outcome that is basic in its skills 	 Limited ability when discussing the need for some improvements or modifications



NEW	Research & Investigating the Design Context	Development of Design Proposals (Inc. Modelling)	Making	Testing & Evaluation
	The student displays:	The student displays:	The student produces:	The student evidences:
	- The ability to provide a written opinion of the research.	development A single design idea.	level. - No evidence of any quality control checks. - An outcome that does have a user in mind but does not meet their requirements.	that could be made to the product.