Graphics Assessment Grid											
	Investigate		Design				Make	Evaluate			
GCSE Level Bands	Investigation of needs and Research (Max- 8 marks)	Specification (Max- 8 marks)	Design Ideas (Max- 8 marks)	Review of Initial Ideas (Max- 8 marks)	Development (Max- 8 marks)	Communication of Design Ideas (Max- 8 marks)	Review of Chosen Design (Max- 6 marks)	Manufacture- selection of materials (Max- 8 marks)	Manufacture- skills and processes (Max- 16 marks)	Quality and Accuracy (Max- 12 marks)	Testing and Evaluation (Max- 6 marks)
7-9	<ul> <li>Evidence of developed investigation and identification of relevant design possibilities, which are fully justified in relation to the contextual challenge.</li> <li>Developed assessment of user needs and wants and the requirements of the prototype in response to the contextual challenge, with fully appropriate reference to form and function.</li> <li>Fully developed evidence of links between the design requirements and the research undertaken in relation to the contextual challenge.</li> <li>Mark Range 7-8</li> </ul>	<ul> <li>Fully sound design brief that demonstrates a realistic response to the contextual challenge, addressing most of the investigated needs and wants of the user.</li> <li>Fully developed range of specification points that are realistic, technical and measurable, based on a fully relevant investigation of research in relation to the contextual challenge.</li> <li>Fully sound justification of the performance requirements for the product in relation to the contextual challenge.</li> </ul>	<ul> <li>Fully appropriate selection and use of design strategies to inform decisions to generate a wide range of design ideas in response to the contextual challenge.</li> <li>Fully sound consideration for the user needs and specification parameters.</li> <li>Ideas demonstrate a fully sound understanding of relevant materials, processes and techniques.</li> <li>Mark Range 7-8</li> </ul>	<ul> <li>Fully developed analysis of design ideas leading to effective refinement and development of designs, which considers comprehensive factors and makes fully relevant connections between elements of the design.</li> <li>Effective evaluation of design ideas leading to considered refinement and development of designs, demonstrating a fully sound understanding of design considerations</li> <li>Mark Range 7-8.</li> </ul>	Fully appropriate use of research to inform ongoing developmental changes. • Fully sound refinements of design ideas and a design solution that fully meets the requirements of the design specification, informed by the fully sound application of technical knowledge of materials and processes and the effective application of modelling/simulation techniques. • Chosen design idea shows fully appropriate application of calculations to determine all material quantities and technical details of materials, processes and components that could be interpreted by a third party.	<ul> <li>Considered selection and fully appropriate use of techniques to communicate design ideas.</li> <li>Considered selection and fully appropriate use of computer-aided design (CAD) techniques to communicate design ideas.</li> <li>Considered selection and fully appropriate use of written techniques to communicate design ideas.</li> <li>Mark Range 7-8.</li> </ul>	<ul> <li>Fully developed analysis of the refinements made to the chosen design in response to the contextual challenge, which considers fully appropriate factors and makes fully appropriate connections between elements of the design.</li> <li>Effective evaluation of the refinements made to the chosen design, supported by fully sound reference to feedback made by others and the consideration of the materials, components and manufacturing techniques.</li> <li>Mark Range 5-6.</li> </ul>	<ul> <li>Effective selection of materials that are fully appropriate for the chosen prototype.</li> <li>Show a fully sound understanding of material properties of the materials used in the prototype.</li> <li>Mark Range 7-8.</li> </ul>	<ul> <li>Produce a prototype that demonstrates fully competent making skills.</li> <li>Fully considered selection of fixtures, components and fittings, which are entirely appropriate for the chosen prototype.</li> <li>Fully competent use of tools, equipment and techniques for the manufacture of the prototype.</li> <li>Demonstrate a sustained high degree of safe working practice for self and others.</li> <li>Mark Range 11-16.</li> </ul>	<ul> <li>Produce a fully functioning prototype that fully meets the end user needs in relation to a demanding design problem.</li> <li>Produce a prototype that fully meets the design specification.</li> <li>Show a fully sound understanding of the need for accuracy.</li> <li>Mark Range 9- 12.</li> </ul>	<ul> <li>Fully developed analysis of the prototype developed in response to the contextual challenge, taking into account the end user and product specification, and showing a fully considered approach to testing against measurable criteria.</li> <li>Effective evaluation of the prototype, taking into account the intended purpose of the prototype, including its sustainability through a life cycle analysis and drawing fully appropriate conclusions from testing against measureable criteria.</li> <li>Mark Range 5-6</li> </ul>
4-6	Evidence of adequate investigation and identification of some relevant design possibilities, which are mostly justified in relation to the contextual challenge. • Mostly developed assessment of user needs and wants and the requirements of the prototype in response to the contextual challenge, with some appropriate reference to form and function. • Some developed evidence of links between the design requirements and the research undertaken in relation to the contextual challenge. Mark Range 4-6	<ul> <li>Generally sound design brief that demonstrates a coherent response to the contextual challenge, addressing many of the investigated needs and wants of the user.</li> <li>Mostly developed range of specification points that are realistic and mostly measurable, based on a mostly relevant investigation of research in relation to the contextual challenge.</li> <li>Generally sound justification of the performance requirements for the product in relation to the contextual challenge.</li> <li>Mark Range 4-6</li> </ul>	<ul> <li>Generally appropriate selection and use of design strategies to inform decisions to generate a range of design ideas in response to the contextual challenge.</li> <li>Generally sound consideration for the user needs and specification parameters.</li> <li>Ideas demonstrate a generally sound understanding of relevant materials, processes and techniques.</li> <li>Mark Range 4-6</li> </ul>	Generally developed analysis of design ideas, leading to appropriate refinement and development of designs, which considers appropriate factors and makes mostly relevant connections between elements of the design.     Competent evaluation of design ideas leading to appropriate refinement and development of designs, demonstrating a mostly sound understanding of design considerations.     Mark Range 4-6	Mark Range 7-8. • Generally appropriate use of research to inform ongoing developmental changes. • Generally sound refinements of design ideas and a design solution that mostly meets the requirements of the design specification, informed by the mostly sound application of technical knowledge of materials and processes and the fully appropriate application of modelling/simulation techniques. • Chosen design idea shows mostly appropriate application of calculations to determine most material quantities and technical details of materials, processes and components that could be interpreted by a third party. Mark Range 4-6	<ul> <li>Relevant selection and generally appropriate use of graphical techniques to communicate design ideas.</li> <li>Relevant selection and generally appropriate use of computer-aided design (CAD) techniques to communicate design ideas.</li> <li>Relevant selection and generally appropriate use of written techniques to communicate design ideas.</li> <li>Relevant design ideas.</li> <li>Relevant selection and generally appropriate use of written techniques to communicate design ideas.</li> <li>Mark Range 4-6</li> </ul>	<ul> <li>Generally developed analysis of the refinements made to the chosen design in response to the contextual challenge, which considers a generally relevant range of factors and makes mostly appropriate connections between elements of the design.</li> <li>Competent evaluation of the refinements made to the chosen design, with mostly sound reference to feedback made by others, and the consideration of the materials, components and manufacturing techniques.</li> </ul>	<ul> <li>Considered selection of materials that are mostly appropriate for the chosen prototype.</li> <li>Show a generally sound understanding of material properties of the materials used in the prototype.</li> <li>Mark Range 4-6</li> </ul>	<ul> <li>Produce a prototype that demonstrates mostly competent making skills.</li> <li>Mostly considered selection of materials, fixtures, components and fittings, which are fully appropriate for the chosen prototype.</li> <li>Mostly competent use of tools, equipment and techniques for the manufacture of the prototype.</li> <li>Demonstrate a high degree of safe working practice for self and others.</li> <li>Mark Range 6-10</li> </ul>	<ul> <li>Produce a mostly functioning prototype that mostly meets the end user needs in relation to a generally demanding design problem.</li> <li>Produce a prototype that mostly meets the design specification.</li> <li>Show a generally sound understanding of the need for accuracy.</li> <li>Mark Range 5-8.</li> </ul>	<ul> <li>Generally developed analysis of the prototype developed in response to the contextual challenge, taking into account the end user and product specification, and showing a generally considered approach to testing against measurable criteria.</li> <li>Competent evaluation of the prototype, taking into account the intended purpose of the prototype, including its sustainability through a life cycle analysis and drawing generally appropriate conclusions from testing against measureable criteria.</li> <li>Mark Range 3-4</li> </ul>

1-3	Evidence of limited	Basic design brief	Basic selection and use of	Superficial analysis	Some appropriate use	<ul> <li>Basic selection and</li> </ul>	Superficial analysis of	Basic selection of	Produce a prototype that	Produce a generally	Superficial analysis of
	investigation and	that demonstrates a	design strategies to inform	of design ideas in	of research to inform	partially appropriate use of	the refinements made	materials that are	demonstrates generally	functioning prototype	the prototype developed
	identification of partially	simplistic response	decisions	response to the	ongoing	graphical	to the chosen	generally appropriate for	competent	that adequately	in response to
	relevant design	to	to generate a limited range	contextual challenge,	developmental changes.	techniques to	design in response to	the chosen prototype.	making skills.	meets the end user	the contextual
	possibilities, which are	the contextual	of simplistic design ideas	which considers basic	<ul> <li>Some sound</li> </ul>	communicate design	the contextual	<ul> <li>Show limited</li> </ul>	<ul> <li>Generally considered</li> </ul>	needs in relation to a	challenge, taking into
	partially justified in	challenge,	in	factors and makes	refinements of design	ideas.	challenge, which	understanding of the	selection of materials,	partially demanding	account the end user
	relation to the contextual	addressing some of	response to the contextual	limited connections	ideas and a design	<ul> <li>Basic selection and</li> </ul>	considers a limited	material properties of	fixtures,	design problem.	and product
	challenge.	the investigated	challenge.	between elements of	solution	partially appropriate use of	range of factors and	the	components and fittings,	<ul> <li>Produce a prototype</li> </ul>	specification, and
	<ul> <li>Basic assessment of</li> </ul>	needs and wants of	<ul> <li>Limited consideration for</li> </ul>	the design.	that generally meets the	computer-aided	makes partially	materials used in the	which are mostly	that meets some	showing a partially
	user needs and wants and	the user.	the user needs and	<ul> <li>Basic evaluation of</li> </ul>	requirements of the	design (CAD) techniques	appropriate	prototype.	appropriate for the	aspects of the design	considered
	the	<ul> <li>Limited range of</li> </ul>	specification	design ideas leading	design	to communicate design	connections between		chosen prototype.	specification.	approach to testing
	requirements of the	specification points	parameters.	to a limited refinement	specification, informed	ideas.	elements of the	Mark Range 1-3	<ul> <li>Generally competent</li> </ul>	<ul> <li>Show a partially</li> </ul>	against measurable
	prototype in response to	that are basic and	<ul> <li>Ideas demonstrate a</li> </ul>	and development of	by the generally sound	<ul> <li>Basic selection and</li> </ul>	design.		use of tools, equipment	sound understanding	criteria.
	the contextual	partially	basic understanding of	designs,	application of	partially appropriate use of	<ul> <li>Basic evaluation of</li> </ul>		and techniques	of the need for	<ul> <li>Basic evaluation of the</li> </ul>
	challenge, with limited	measurable, based	some materials	demonstrating a	technical knowledge of	written	the refinements made		for the manufacture of the	accuracy.	prototype, taking into
	appropriate reference to	on a superficial	and processes.	limited	materials and/or	techniques to	to the chosen		prototype.		account the
	form and	investigation of		understanding of	processes and the	communicate design	design, with limited		Demonstrate a generally	Mark Range 1-4.	intended purpose of the
	function.	research in	Mark Range 1-3	design considerations.	mostly appropriate	ideas.	reference to feedback		high degree of safe		prototype, including its
	Superficial evidence of	relation to the			application of		made by others, and		working practice		sustainability
	links between the design	contextual		Mark Range 1-3	modelling/simulation	Mark Range 1-3	the consideration of		for self and others.		through a life cycle
	requirements	challenge.			techniques.		the materials and		Mark Damas 4.5		analysis and drawing
	and the research	Basic justification			Chosen design idea		components.		Mark Range 1-5		partially appropriate
	undertaken in relation to	of the performance			snows generally		Mark Dames 4.0				conclusions from testing
	the contextual	requirements for the			appropriate application		Mark Range 1-2				against measureable
	challenge.	product in relation to			Of approximate						chteria.
	Mark Dange 1.2	the contextual			determine some meterial						Mark Dange 1.2
	Wark Range 1-3	challenge.			determine some material						Wark Range 1-2
		Mark Banga 1 2			quantilies and						
		Wark Range 1-3			technical details of most						
					appropriate that could						
					be interpreted by a third						
					party						
					party.						
					Mark Range 1-3						
					Mark Range 1-3						