



KS3 ASSESSMENT

Design & Technology Electronics
BRAMHALL HIGH SCHOOL

	Acquiring Basic	Developing Adequate	Secure Good	Mastered Exceptional
	Is beginning to acquire the necessary knowledge for the topic(s)	Is developing the knowledge necessary to understand the topic	Understands the topic and is able to make links using the knowledge	Fully understands the topic and is able to confidently link knowledge.
<p>Tier 1 Electronics: Night Light project.</p> <p>This project rotates on a 10 week carousel throughout year 7 & 8.</p>	<p>DESIGN:</p> <ul style="list-style-type: none"> - Basic research of existing textiles products. - An attempt to identify the needs of user. - Limited specification to inform the design of functional and appealing products. - Basic approaches to generate ideas. - Limited developed ideas lacking in annotation, sketches and basic plans. 	<p>DESIGN:</p> <ul style="list-style-type: none"> - Adequate research and exploration of existing textiles products. - Adequate identification of the needs and wants of user. - Sufficient specification to inform the design of functional and appealing products. - Adequate approaches to generate ideas and avoid stereotypical responses. - Adequate developed ideas using annotated sketches and plans. 	<p>DESIGN:</p> <ul style="list-style-type: none"> - Good research and exploration of existing textiles products. - Good identification of the needs and wants of user. - Detailed specification to inform the design of functional and appealing products. - A variety of approaches to generate good ideas and avoid stereotypical responses. - Effective developed ideas using annotated sketches and plans. 	<p>DESIGN:</p> <ul style="list-style-type: none"> - Exceptional research and exploration of electronic circuits and components. - Thoroughly identified the needs and wants of user. - Detailed & justified specification to inform the design of innovative, functional and appealing products. - A variety of approaches to generate innovative ideas. - Imaginative developed ideas using annotated sketches and detailed plans.

	<p>MAKE:</p> <ul style="list-style-type: none"> - Basic use of specialist textiles tools, techniques, processes, equipment and machinery. - Limited use of a range of textiles materials and components, not taking into account their properties. <p>EVALUATE:</p> <ul style="list-style-type: none"> - Basic evaluation of the production of their electronic outcome. - Limited evaluation of their design. - Basic evaluation against Target Market criteria. <p>TECHNICAL KNOWLEDGE:</p> <ul style="list-style-type: none"> - Little or no understanding of the properties and function of common electronic components. - A basic knowledge of the properties and working characteristics of thermoplastics. 	<p>MAKE:</p> <ul style="list-style-type: none"> - Adequate use of specialist textiles tools, techniques, processes, equipment and machinery. - Adequate use of a range of textiles materials and components, taking into account their properties. <p>EVALUATE:</p> <ul style="list-style-type: none"> - Adequate evaluation of the production of their electronic outcome. - Adequate evaluation of their design. - Adequate evaluation against Target Market criteria. <p>TECHNICAL KNOWLEDGE:</p> <ul style="list-style-type: none"> - An adequate understanding of the properties and function of common electronic components. - An adequate knowledge of the properties and working characteristics of thermoplastics. 	<p>MAKE:</p> <ul style="list-style-type: none"> - Good use of specialist textiles tools, techniques, processes, equipment and machinery. - Good use of a wide range of textiles materials and components, taking into account their properties. <p>EVALUATE:</p> <ul style="list-style-type: none"> - Good evaluation of the production of their electronic outcome. - Good evaluation of their design. - Detailed evaluation against Target Market criteria. <p>TECHNICAL KNOWLEDGE:</p> <ul style="list-style-type: none"> - A good understanding of the properties and function of common electronic components. - A good knowledge of the properties and working characteristics of thermoplastics. 	<p>MAKE:</p> <ul style="list-style-type: none"> - Exceptional use of soldering and plastic forming tools to include techniques and accuracy. - precisely. - Used a wide range of components and materials to produce an electronic outcome taking into account their properties and function. <p>EVALUATE:</p> <ul style="list-style-type: none"> - Extensive evaluation of the production of their electronic outcome. - Excellent evaluation of their design. - Comprehensive evaluation against Target Market criteria. <p>TECHNICAL KNOWLEDGE:</p> <ul style="list-style-type: none"> - A comprehensive understanding of the properties and function of common electronic components. - An exceptional knowledge of the properties and working characteristics of thermoplastics.
--	--	---	--	--

	Acquiring Basic	Developing Adequate	Secure Good	Mastered Exceptional
	Is beginning to acquire the necessary knowledge for the topic(s)	Is developing the knowledge necessary to understand the topic	Understands the topic and is able to make links using the knowledge	Fully understands the topic and is able to confidently link knowledge.
<p>Term 1a Design and make a portable stereo amplifier incorporating laser cut MDF casing. This project covers 3 half terms.</p>	<p>DESIGN:</p> <ul style="list-style-type: none"> -Some research and investigation of existing portable amplifier products. - Basic identified the needs and wants of user in a portable amplifier suitable for use with a mobile phone. - A brief specification to inform the design of functional and appealing products suitable for teenagers. - Limited specification to inform the design of functional and appealing products suitable for their Target Market. - Limited use of 2D design to produce innovative design for amplifier casing. 	<p>DESIGN:</p> <ul style="list-style-type: none"> -Adequate research and investigation of existing portable amplifier products. - Adequate identified the needs and wants of user in a portable amplifier suitable for use with a mobile phone. - Sufficient specification to inform the design of functional and appealing products suitable for their Target Market. - Adequate use of 2D design to produce innovative design for amplifier casing. - Adequate use of 2D design to communicate in isometric their casing idea. 	<p>DESIGN:</p> <ul style="list-style-type: none"> -Good research and investigation of existing portable amplifier products. - Thoroughly identified the needs and wants of user in a portable amplifier suitable for use with a mobile phone. - Good specification to inform the design of functional and appealing products suitable for their Target Market. - Good use of 2D design to produce innovative design for amplifier casing. - Good use of 2D design to communicate in isometric their casing idea. 	<p>DESIGN:</p> <ul style="list-style-type: none"> -Exceptional research and investigation of existing portable amplifier products. - Thoroughly identified the needs and wants of user in a portable amplifier suitable for use with a mobile phone. - Detailed & justified specification to inform the design of innovative, functional and appealing products suitable for their Target Market. - Exceptional use of 2D design to produce innovative design for amplifier casing. - Exceptional use of 2D design to communicate in isometric their casing idea.

	- Limited use of 2D design to communicate in isometric their casing idea.			
<p>Term 1b ...Sustained project continued.</p> <p>Contextual Challenge</p> <p>Teenage Lifestyles mini makes.</p> <p>This project covers 3 half terms.</p>	<p>MAKE:</p> <ul style="list-style-type: none"> - Basic use of soldering tools, techniques, processes, equipment and machinery - Limited production and assembly of amplifier casing using laser cutter and hand assembly techniques. - Used a few quality control checks. - An overall basic quality and finish of products. 	<p>MAKE:</p> <ul style="list-style-type: none"> - Adequate use of soldering tools, techniques, processes, equipment and machinery. - Sufficient production and assembly of amplifier casing using laser cutter and hand assembly techniques. - Used an adequate range of quality control checks carried throughout manufacturing. - An overall adequate quality and finish of products. 	<p>MAKE:</p> <ul style="list-style-type: none"> - Good use of soldering tools, techniques, processes, equipment and machinery. - Good production and assembly of amplifier casing using laser cutter and hand assembly techniques. - Used a good range of quality control checks carried throughout manufacturing. - An overall good quality and finish of products. 	<p>MAKE:</p> <ul style="list-style-type: none"> - Exceptional use of soldering tools, techniques, processes, equipment and machinery precisely & skilfully. - Exceptional production and assembly of amplifier casing using laser cutter and hand assembly techniques. - Extensive quality control checks carried throughout manufacturing. - An overall exceptional quality and finish of products.

<p>Term 2a ...Sustained project continued.</p> <p>Contextual Challenge</p> <p>Teenage Lifestyles mini makes.</p> <p>This project covers 3 half terms.</p>	<p>TECHNICAL KNOWLEDGE:</p> <ul style="list-style-type: none"> - Lacks understanding of circuit and component function. - Little or no consideration for the impact designers, manufacturers and consumers have on the environment. - Limited understanding of how 2D design can communicate and realise design ideas. -Brief understanding of the classification of electronic components into inputs, processers and outputs. -Little. understanding of circuit and component function. <p>EVALUATE:</p> <ul style="list-style-type: none"> - Limited evaluation of the production of their electronic outcome. - Basic evaluation of their design. - Little or no evaluation against specification and Target Market criteria. 	<p>TECHNICAL KNOWLEDGE:</p> <ul style="list-style-type: none"> - An adequate understanding of circuit and component function. - An adequate understanding of casing assembly techniques, adhesives and properties of manufactured boards. - Adequate understanding of how 2D design can communicate and realise design ideas. -Sufficient understanding of the classification of electronic components into inputs, processers and outputs. -Adequate understanding of circuit and component function. <p>EVALUATE:</p> <ul style="list-style-type: none"> - Adequate evaluation of the production of their electronic outcome. - Sufficient evaluation of their design. - Satisfactory evaluation against specification and Target Market criteria. 	<p>TECHNICAL KNOWLEDGE:</p> <ul style="list-style-type: none"> - A good understanding of circuit and component function. - A good understanding of casing assembly techniques, adhesives and properties of manufactured boards. - Good understanding of how 2D design can communicate and realise design ideas. -Good understanding of the classification of electronic components into inputs, processers and outputs. -Good understanding of circuit and component function. <p>EVALUATE:</p> <ul style="list-style-type: none"> - Good evaluation of the production of their electronic outcome. - Good evaluation of their design. - Detailed evaluation against specification and Target Market criteria. 	<p>TECHNICAL KNOWLEDGE:</p> <ul style="list-style-type: none"> - A comprehensive understanding of circuit and component function. - An exceptional understanding of casing assembly techniques, adhesives and properties of manufactured boards. - Exceptional understanding of how 2D design can communicate and realise design ideas. -Excellent understanding of the classification of electronic components into inputs, processers and outputs. -Exceptional understanding of production requirements to include: processes; resources; tools; safety and quality control. <p>EVALUATE:</p> <ul style="list-style-type: none"> - Extensive evaluation of the production of their electronic outcome. - Excellent evaluation of their design. - Comprehensive evaluation against specification and Target Market criteria.
--	---	--	--	--

	- Basis or no understanding of developments in design and technology.	- Adequate understanding of developments in design and technology.	- Good understanding of developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers.	- Exceptional understanding of developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists.
--	--	---	--	--