

Key Stage Five Curriculum – Design and Technology Design Engineering – Carre’s Grammar School

Subject							
	Autumn 1	Autumn 2	Spring 3	Spring 4	Summer 5	Summer 6	
Year 12	<p>NEA</p> <ul style="list-style-type: none"> • NEA Introduction • Transition Work Review • Possible challenges discussed • Exploration of Contexts • Investigation of Stakeholders • Feasibility of Contexts • Generating a Design Brief • Investigate existing products and systems • Ongoing analysis and evaluation of primary and/or secondary sources 	<p>NEA</p> <ul style="list-style-type: none"> • Exploration of materials through research and testing • List of Technical Requirements • Through an iterative approach of design, develop and evaluate a range of design proposals will be presented • Ongoing evaluation to manage design progression 	<p>NEA</p> <ul style="list-style-type: none"> • Through an iterative approach of design, develop and evaluate a range of design proposals will be presented • Ongoing evaluation to manage design progression 	<p>NEA</p> <ul style="list-style-type: none"> • Through an iterative approach of design, develop and evaluate a range of design proposals will be presented • Ongoing evaluation to manage design progression 	<p>NEA</p> <ul style="list-style-type: none"> • Development of Final Design Solutions. This is to include a range of presentation drawings 	<p>NEA</p> <ul style="list-style-type: none"> • Planning for the making the final prototype using established planning tools • Production of Risk Assessments 	
	<p>Theory Work</p> <ol style="list-style-type: none"> 1. Identifying Requirements 2. Learning from Existing Products and Practice 	<p>Theory Work</p> <ol style="list-style-type: none"> 3. Implications of Wider Issues 	<p>Theory Work</p> <ol style="list-style-type: none"> 5. Materials and Components considerations 	<p>Theory Work</p> <ol style="list-style-type: none"> 6. Technical Understanding 			
	<p>Assessment</p> <p>Year 12 Induction Assessment</p>	<p>Assessment</p> <p>Year 12 Formal Assessment</p>		<p>Assessment</p> <p>AFL</p>			

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	AFL Formative Assessment			Formative Assessment	
Year 13	<u>NEA</u> <ul style="list-style-type: none"> Use of specialist techniques, processes, tools and equipment to produce quality and viable prototypes 	<u>NEA</u> <ul style="list-style-type: none"> Use of specialist techniques, processes, tools and equipment to produce quality and viable prototypes 	<u>NEA</u> <ul style="list-style-type: none"> Use of specialist techniques, processes, tools and equipment to produce quality and viable prototypes Feasibility of the final prototype tested Evaluation of the final prototype 	<u>NEA</u> <ul style="list-style-type: none"> Ensuring that all photos, videos and associated files work and are embedded electronically. 	<u>Theory Work</u> <ol style="list-style-type: none"> Manufacturing processes and techniques Viability of Design Solutions <p><u>Student led revision – addressing areas that they feel they need support with</u></p>
	Assessment Year 13 Mock Examination		Assessment Year 13 Mock Examination AFL Formative Assessment		Assessment Summative Assessment of NEA AFL

Topic 4 Design Thinking and Communication and Topic 9 Health and Safety are covered within the NEA.

Indicative Design and Technology NEA Coverage, taken from the Specification. Due to the iterative nature of the NEA Strands are completely out of order when compared with the NEA matrix.

Year 12 Autumn 1 –

Strand 1 - Investigations of the context and feasibility study of potential approaches

Strand 1 - Design brief

Strand 1 - Investigations of user and stakeholder needs and wants and the outlining of stakeholder requirements (non-technical specification)

Strand 1 - Investigations of existing products and design practices

Strand 5 - Analysis and evaluation of primary and/or secondary sources

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Year 12 Autumn 2 –

Strand 1 - Exploration of materials and possible technical requirements
Strand 5 - Analysis and evaluation of primary and/or secondary sources

Year 12 Spring 3 –

Strand 2 - Generation of initial ideas
Strand 3 - Quality of initial ideas
Strand 2 - Design developments
Strand 3 - Quality of design developments
Strand 2 -Critical thinking
Strand 5 - Ongoing evaluation to manage design progression

Year 12 Spring 4 –

Strand 2 - Generation of initial ideas
Strand 3 - Quality of initial ideas
Strand 2 - Design developments
Strand 3 - Quality of final design solution(s)
Strand 2 -Critical thinking
Strand 5 - Ongoing evaluation to manage design progression

Year 12 Summer 5 –

Strand 2 - Development of final design solution(s)
Strand 3 - Quality of final design solution(s)

Year 12 Summer 6 –

Strand 4 - Quality of planning for making the final prototype(s)
Strand 5 - Risk Assessments

Year 13 Autumn 1 –

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Strand 4 -Quality of final prototype(s)

Strand 4 -Use of specialist techniques and processes

Strand 4 -Use of specialist tools and equipment

Strand 4 -Viability of the final prototype(s)

Year 13 Autumn 2 –

Strand 4 -Quality of final prototype(s)

Strand 4 -Use of specialist techniques and processes

Strand 4 -Use of specialist tools and equipment

Strand 4 -Viability of the final prototype(s)

Year 13 Spring 3 –

Strand 4 -Quality of final prototype(s)

Strand 4 -Use of specialist techniques and processes

Strand 4 -Use of specialist tools and equipment

Strand 4 -Viability of the final prototype(s)

Strand 5 - Feasibility of the final prototype(s)

Strand 5 - Evaluation of the final prototype(s)

Strand 1 - Technical specification

Year 13 Spring 4 –

Ensuring that all photos, videos and associated files work and are embedded electronically.