

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

| Subject | | | | | | |
|----------------|---|--|---|---|--|---|
| | Autumn 1 | Autumn 2 | Spring 3 | Spring 4 | Summer 5 | Summer 6 |
| Year 10 | <p><u>Design and Technology</u> Design Develop – Use specialist knowledge to design a range of outcomes</p> | <p><u>Design and Technology</u> Manufacture – Use specialist tools and equipment to realise a practical outcome</p> | <p><u>Design and Technology</u> Core – Develop a core body of knowledge of Design and Technology</p> | <p><u>Design and Technology</u> Designing within the chosen specialist area. Reinforcing and stiffening.</p> | <p><u>Design and Technology</u> Designing within the chosen specialist area. Reinforcing and stiffening.</p> | <p><u>Design and Technology</u> NEA – Responding to Live Assessment released by the exam board 1st June.</p> |
| | <p><u>CNAT Engineering</u> <u>R039 Preparation</u> – Knowledge: Materials, Processes, Drawing Standards, Presentation Techniques</p> | <p><u>CNAT Engineering</u> R039 – Response to Live Assessment Material</p> | <p><u>CNAT Engineering</u> R039 – Response to Live Assessment Material</p> <p>R038 Preparation Topic Areas 3 - Communicating Design Outcomes</p> | <p><u>CNAT Engineering</u> R038 Preparation: Topic Area 2 – Design Requirements</p> <p>R038 Preparation Topic Area 2 – Design Requirements</p> <p>Topic Areas 3 - Communicating Design Outcomes</p> <p>Topic Areas 4 – Evaluating Design Ideas</p> | <p><u>CNAT Engineering</u> R040 <u>Preparation</u> – Product Analysis Product Disassembly Modelling</p> <p>R038 Preparation Topic Areas 2 – Design Requirements</p> <p>R038 Preparation Topic Areas 4 – Evaluating Design Ideas</p> | <p><u>CNAT Engineering</u> R040 <u>Preparation</u> – Product Analysis Product Disassembly Modelling</p> |
| | Assessment | | Assessment | | Assessment | |
| | Design and Technology AFL | | Design and Technology AFL | | Design and Technology AFL | |

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| | <p>Socratic Assessments focusing on knowledge acquisition 2 Summative Assessments:</p> <ul style="list-style-type: none"> • First is 1-2 hours on presenting designing/developing. • Second is a means to document practical outcomes. <p>CNAT Engineering AFL 1 Summative Assessment on presentation techniques</p> | | <p>Socratic Assessments to test learnt knowledge Summative Assessment on design outcomes</p> <p>CNAT Engineering AFL Socratic Testing 1 Summative Assessment on product disassembly</p> | | <p>Socratic Assessments to test learnt knowledge Summative Assessment on practical outcomes</p> <p>CNAT Engineering AFL Socratic Testing 1 Summative Assessment on modelling methods</p> | |
| Year 11 | <p>Design and Technology NEA</p> <p>CNAT Engineering R040 – Preparation: ACCESSFM, evaluation matrices, Production Planning, Risk Assessment R040 – Response to Live Assessment Material</p> | <p>Design and Technology NEA</p> <p>CNAT Engineering R040 – Response to Live Assessment Material R038 – Preparation Topic Area 1 – Design Processes</p> | <p>Design and Technology NEA</p> <p>CNAT Engineering R038 Preparation: Topic Area 2 – Design Requirements Topic Areas 3 - Communicating Design Outcomes</p> | <p>Design and Technology NEA</p> <p>CNAT Engineering R038 Preparation: Topic Areas 4 – Evaluating Design Ideas</p> | <p>Design and Technology NEA administration Revision of specialist areas</p> <p>CNAT Engineering Student led revision</p> | |
| | <p>Design and Technology Assessment AFL in line with exam board requirements</p> <p>CNAT Engineering AFL 1 Summative Assessment on research methods</p> | | <p>Design and Technology Assessment Socratic Assessments</p> <p>CNAT Engineering AFL 1 Summative Assessment on design requirements</p> | | <p>Design and Technology Assessment Socratic Assessments</p> <p>CNAT Engineering AFL</p> | |

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Indicative Design and Technology NEA Coverage – (due to the iterative nature of the NEA, some topic areas may be approached at different times).

Year 10 Summer 6 –

- 1.1 Investigation of needs and research
- 1.2 Product specification
- 2.1 Design ideas

Year 11 Autumn 1 –

- 2.1 Design ideas
- 2.2 Review of initial ideas
- 2.3 Development of design ideas into a chosen design
- 2.4 Communication of design ideas

Year 11 Autumn 2 –

- 2.3 Development of design ideas into a chosen design
- 2.4 Communication of design ideas
- 2.5 Review of chosen design

Year 11 Spring 3 –

- 2.5 Review of chosen design
- 3.1 Manufacture
- 3.2 Quality and accuracy

Year 11 Spring 4 –

- 4.1 Testing and evaluation