

## Key Stage 3 Curriculum Overview 2021 - 2022

Year Group	Topics – Term 1/2	Key assessments	Topics – Term 2/3	Key assessments
<b>7</b>	<p><b>Baseline test</b> Basic General mini assessment to highlight previous DT knowledge gained</p> <p><b>Moisture Tester Project</b> (Electronics) (9 hrs) To develop student understanding of how electronic ‘sensing’ systems are developed and designed for a target user.</p> <p>To understand how computer simulation is a useful tool when developing electronics systems and how it reduces electronic waste.</p> <p>To select appropriate sustainable materials and minimise waste when using advanced manufacturing equipment.</p>	<p>Baseline test (at start of DT group rotation)</p> <p>Making skills (quality of soldering, CAD, folding acrylic)</p> <p>Selection and use of a range of workshop tools</p> <p>Evaluation and testing of product made</p>	<p><b>Technical Drawing</b> (DC Marvel Super heroes theme) (9 hrs)</p> <p>Introductory content designed to teach students key skills in DT to promote quality of work and accuracy through presentation and measuring.</p> <p>Fun topic to encourage use of previous knowledge, engagement in lessons and ownership of work progress.</p> <p>To promote social skills with meeting new students and having a familiar theme for discussion.</p>	<p>Students are assessed on their ability to work with a customer group in mind with flair, creativity and accuracy.</p>

<p style="text-align: center;"><b>8</b></p>	<p><b>Cycle Safety Project</b> (Electronics and PIC chips) (9 hrs)</p> <p>To gain an awareness of how to cycle safely and understand why teenagers are more likely to be injured on the roads than any other age group.</p> <p>To develop products that can be modelled using CAD software and understand how 3D printing links to real world products.</p> <p>To gain an awareness of the 6R's when designing and how to make informed choices when selecting materials.</p>	<p>Research, investigation and product analysis</p> <p>Programming Pic chips</p> <p>Evaluation and test</p>	<p>My-space project.</p> <p>Students will investigate, research, and design a personalised door plaque using their own ideas and making skills.</p> <p>They will learn how to work safely in the workshop using a range of hand, fixed and portable tools to turn their idea into a practical outcome.</p> <p>Use of surface finishes and decorative techniques</p>	<p>They will evaluate their work analysing the key features of the product such as quality of design, making skills and use of recycled materials.</p>
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<p style="text-align: center;"><b>9</b></p>	<p><b>Travel Game in a box</b></p> <p><b>Mini design and make project (19 hrs)</b></p> <p>Introduction to contextual challenge</p> <p>Practical construction of a game box</p> <p>Game design and development</p> <p>Production flowchart</p> <p>Testing and evaluation</p>	<p>Students are assessed on their ability to apply the principles of the iterative design process.</p> <p>The student journey is assessed at each key stage of the challenge to ensure that the final product reflects the needs of the customer and contextual challenge.</p> <p>The quality and use of theoretical and practical skills has a 50/50 weighting.</p>		
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