

# Do you want to work in engineering?

*This is how our curriculum can guide you there*

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|--------------------|---|---|---|--|
| <b>Key Stage 4</b> | <p><b>WJEC Engineering</b></p> <p>You will learn to:</p> <ul style="list-style-type: none"> <li>Investigate existing products.</li> <li>Complete and understand technical drawings.</li> <li>Develop your metal working skill.</li> <li>Test and evaluate the products you have made against a specification.</li> </ul>  | <p><b>AQA Design Technology</b></p> <p>You will learn to:</p> <ul style="list-style-type: none"> <li>Investigate products and materials.</li> <li>Develop your CAD and CAM skills.</li> <li>Respond to a design brief.</li> <li>Develop your design ideas iteratively.</li> <li>Produce a final prototype.</li> <li>Evaluate your prototype against your intentions.</li> </ul>   | <p><b>NCFE Graphic Design</b></p> <p>You will learn to:</p> <ul style="list-style-type: none"> <li>Experiment and develop the main components of Graphic Design.</li> <li>Discover the work of other designer and use their influence to create your own work.</li> <li>Respond to a design brief</li> <li>Create a portfolio that you can take to interviews.</li> </ul>               | <p><b>Extras</b></p> <ul style="list-style-type: none"> <li>Develop your practical machining skills using our world class resources.</li> <li>Compete in a national Royal Navy competition.</li> <li>Take part in engineering themed work experience.</li> <li>Apply your knowledge of engineering to our employer projects.</li> <li>Meet and develop relationships with engineering professionals.</li> <li>Go on visits to engineering companies.</li> <li>Listen to key note speeches from industry experts.</li> <li>Enter national and international engineering and design competitions</li> <li>Take part in enrichment themed enrichment sessions.</li> </ul> |
| <b>Key Stage 5</b> | <p><b>BTEC Engineering Extended Certificate</b></p> <p>You will learn to:</p> <ul style="list-style-type: none"> <li>Apply mathematical and physical science to solve engineering problems.</li> <li>Explore how teams deliver engineering products safely.</li> <li>Develop your CAD skills.</li> <li>Explore commercial engineering.</li> </ul>                   | <p><b>BTEC Engineering Extended Diploma</b></p> <p>You will learn everything in the Extended Certificate plus:</p> <ul style="list-style-type: none"> <li>Develop your practical, machining and CNC skills.</li> <li>Apply project management principles.</li> <li>Explore the development of programmable devices and computer code to control physical systems.</li> </ul>      | <p><b>Core Maths</b></p> <p>You will learn to:</p> <ul style="list-style-type: none"> <li>Organise complicated real life situations or problems into clear and logical steps to aid problem solving</li> <li>Analyse how constraints in manufacturing processes can have an effect</li> <li>Develop your mathematical skills and apply them in a range of practical contexts</li> </ul> |  |
| <b>18+</b>         | <p><b>Apprenticeships</b></p> <p>We will give you access to our Apprenticeship program that will provide you will all of the skills you need to get the right apprenticeship for you. Our employer partners will coach you in how to interview well and they will work with you through the two years to help you build the skill set you they are looking for.</p> | <p><b>University</b></p> <p>We have a strong UCAS process that focusses on providing you with the best University courses available. 88% of our students who leave for University go on to study STEM based course, with many studying courses related to different types of engineering including mechanical engineering, aerospace engineering and engineering mathematics.</p> | <p><b>Employment</b></p> <p>Our range of employer partners are regular visitors to the UTC. You will have a chance to speak with them, get interviewed by them, demonstrated your work and build relationships so that when they advertise of a position in engineering you will be front of the queue.</p>   |  |

Our engineering employer partners include

