

## Technology Year 8 Curriculum Overview

### What is the Year 8 Technology curriculum aiming to achieve?

What do we want our Year 8 Technologists to be like?	How are we building on prior learning?	How can parents/carers support their child's learning?
<ul style="list-style-type: none"> <li>Conduct themselves safely in all workshops.</li> <li>Employ a range of appropriate design techniques</li> <li>Be able to recognise appropriate uses for materials and equipment.</li> <li>Be able to use CAD software (SpaceClaim and 2d Design Tools) manufacturing outcomes.</li> <li>Be able to communicate their own ideas in 3d.</li> </ul>	<ul style="list-style-type: none"> <li>Students take greater responsibility for their own safety and others.</li> <li>Reflect upon previous approaches/methods when generating designs.</li> <li>Reflect upon previous materials and their working properties.</li> <li>Apply knowledge of software systems and functions in CAD designs.</li> <li>Select most appropriate materials when manufacturing outcomes.</li> </ul>	<ul style="list-style-type: none"> <li>Discuss safety and safe use of equipment in the home.</li> <li>Discuss designs/sculptures/craftwork</li> <li>Name/recognise materials being used and their working properties.</li> <li>Make use of Google SketchUp</li> <li>Discuss student's school asking them to justify material choices.</li> </ul>

### How are we organising the Year 8 Technology curriculum?

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics	Baseline test – Jigsaw puzzle piece	Gift Box	Chair Flair Challenge Task	Promotional Figure	Structures and Energy	
Threshold Concepts	Ability to use templates. Cutting, shaping to tolerance	Identification of tools Visualising desired outcome Control of tooling Transferring images in CAD Creating a desirable product	Awareness of design eras, e.g., style and traits	Understanding and appreciation of target audience addressing their desires/requirements.	Weight/load distribution Environmental impact of energy generation	
Skills	2D shape. Accurate cutting and finishing. Quality construction	Accuracy Transferring measurements Cutting wood joints CAD cutting files Applying finishes	Appreciation and application of design eras. Innovation	Generation of specification and innovative designs Application of CAD generating stl files	Construction, adaptation responding to load Innovative use of 'green energy'	
Enrichment within the curriculum	Opportunity to apply knowledge and understanding of CAD/CAM into future projects Opportunity to construct designs in CAD and generate 3D printed model/s Apply knowledge and understanding of energy within a conceptual product providing real world contexts					
Cross curricular links	<ul style="list-style-type: none"> <li>Art - students explore the work of artists/movements.</li> <li>Science – application of key terms, load, effort, pivot, compression etc...+ energy types/forms.</li> <li>Geography – Environmental impact of energy production and role of more desirable form.</li> </ul>					
Extra-curricular opportunities	Opportunity to peer mentor/support Year 7 students entering the LEGO robotics challenge Opportunity to enter/compete in publicised IET events. Opportunity to complete in the ARCONIC finals against other local High Schools presenting their real-world solution in a 'dragon's den format'.					

### What are the intended outcomes of the Year 8 Technology curriculum?

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Opportunities to show progress (Assessments)	Base line Accuracy and quality of outcome	Development of design proposals Use of design techniques	Accuracy in marking and cutting. Use of design techniques Development of design proposals	Understanding and application of CAD techniques	Review of outcomes, improvements in future prototypes	
Impact on personal development (SMSC)	Students are encouraged to support each other when overcoming problems and frustrations that come with learning a new practical skill, enabling students lose the fear of failure and keep striving for success. Learning about social and moral issues within the energy industry encourages students to reflect upon their own choices of materials and techniques.					
Preparation for the next stage of education	Building and consolidating practical knowledge learnt in years 7 & 8 to create independent and confident students who are willing to present and share their design proposals. Knowledge of environmental factors support students in making considered and thoughtful choices of materials and techniques.					

