Technology Year 9 Curriculum Overview

What is the Year 9 Technology curriculum aiming to achieve?		
What do we want our Year 9 Technologists to be like?	How are we building on prior learning?	How can parents/carers support their child's learning?
• Safe independent working • Identify and use appropriate design techniques • Be able to identify appropriate uses for materials and equipment • Employ advanced features of CAD • Select and employ appropriate drawing technique/s to communicate effectively	• Introduce new materials and complex manufacturing techniques • Allow students to independently select appropriate ways of responding to design challenges	• Encourage an interest in how products have been designed and manufactured • Look out for design and creative competitions and TV programs. • When completing homework 'go the extra mile' • Encourage students to enjoy designing – have fun make mistakes and learn from them.

How are we organising the Year 9 Technology curriculum?						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Topics	Baseline test – Isometric projections	Adjustable lighting Levers and mechanisms Electronics	T-shirt Dye sublimation Manipulating images Promotional packaging	Pewter casting Designing for a client - CAD CAM Casting Working with metals Packaging		Developing design proposals Appreciating the work of others
Threshold Concepts	Ability to use templates. Cutting, shaping to tolerance	Come up with creative and imaginative designs Successfully solder and construct a working circuit.	Designing for an identified client Dye sublimation on fabric Space/Volume - Nets	Understand client/user needs Manipulate images using 2D Design tools		Convey design intentions through the construction of models
Skills	2D shape. Accurate cutting and finishing. Quality construction	Electrical circuits. Soldering. Solving design problems	Using hand tools. Modelling & evaluating	Personalisation Image selection, manipulation using Photoshop Constructing nets	Communicate and develop designs through sketching, evaluation and modelling	Select suitable materials Enable third party to manufacture
Enrichment within the curriculum	Students will have the opportunity to take their ARCONIC projects and compete against local schools. This is done in front of a panel of judges in a 'Dragons Den' style competition. Opportunity to apply knowledge and understanding of CAD/CAM into future projects Opportunity to construct designs in CAD and generate 3D printed model/s					
Cross curricular links	• Mathematics – drawing to specific sizes and scales • Science – understanding forces • Science – the impact of product design upon the environment • Science – electrical theory • English – writing and delivering an effective presentation					
Extra-curricular opportunities	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 9 Technology curriculum?						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Opportunities to show progress (Assessments)	Development of design proposals	Development of design proposals Innovative concept Quality of working lamp		Understanding and application of CAD techniques	Creating 3D products Metal casting	Understanding the role of a designer in creating environmentally sustainable products.
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.*					