



Curriculum Map Year 8

Engineering

The ADT curriculum is delivered through a carousel with each student engaged in one subject per term.

Curriculum Intent:

	Engineering		Food Technology		Art	
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Unit of work	<p>Project: Mechanisms</p> <p>Y8 learners will continue to work within the iterative design process further developing their understanding of modern design. Learners will refine their research skills looking at primary and secondary research material. Learners will work as both an individual and as part of a team in order to review their research and develop a design specification to meet a design need set by potential consumer. Learners will develop an understanding of basic mechanisms and how they provide a transmission/ conversion of movement in everyday mechanical systems. Learners will be introduced to manual and CAD based technical drawing styles and how design information is conveyed within manufacturing. Learners will utilise a range of manufacturing techniques including CAM in order to produce a product from a range of materials, then evaluate the products success against the design specification. A review of the design and manufacturing process will then provide learners with the opportunity to suggest potential modifications for the future.</p>					
Core Skills	<ul style="list-style-type: none"> Analysis Numerical Skills Technical drawing skills CAD CAM Workshop/ safety skills Literacy Skills Decision making Evaluating 					
Core Knowledge	<ul style="list-style-type: none"> Types of motion Levers Pulleys Gears Gear ratio Mechanical advantage 					
Assessment & Feedback	<p>Assessment 1- Students undertake an assessment involving the interpretation of the supplied design brief and application of design skills</p>	<p>Interim Assessment- Safe manufacturing processes and the application of CAD CAM.</p> <p>Summative Assessment- Knowledge and understanding of the iterative design process. The effective use of product evaluation techniques</p>				
Link to prior learning	<ul style="list-style-type: none"> Graphical skills- progression to the use of 3D drawing techniques (Oblique) the correct use of engineering Elevations and the production of basic 3rd angle orthographic projection Working to meet the needs of a client Development of product Analysis skills Development of Specification writing Development of Evaluation techniques 					
Outside learning/trips						