



		Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2		
<b>Reporting Y7</b>		CfCs		BfL & LAL		BfL & LAL		BfL & LAL		BfL & LAL		BfL & LAL		
<b>Year 7</b>	Health and safety instruction	<p><b>Jewellery project</b> - this is the only project in KS3 that covers all aspects of a "design and make task". Students will cover the following skills to a basic level; brief analysis and research, design ideas (learning how to draw in 3d, render, annotate), development, planning, manufacture (one off and batches) and evaluation. <b>Machines:</b> Scroll saw. <b>Material focus:</b> 3mm MDF, Pewter. <b>Process:</b> casting. <b>Maths link:</b> percentages, calculating manufacturing costs and adding profits. <b>Extended writing:</b> evaluation.</p>				<p><b>Graphics module:</b> 4x groups rotate through 113 to complete the CAD part module, learning CorelDraw (used to drive the machines later in Y9 and KS4). Introduction to Isometric drawing, surface and tonal rendering. <b>Movement:</b> Art Nouveau. <b>Trinket box project:</b> making task with focus on planning in folder work. <b>Machines:</b> Linisher and pillar drill. <b>Material focus:</b> Plywood, PVA foamboard. <b>Processes:</b> changing saw blades</p>				<p><b>Doorhanger Project:</b> skills covered, User design, designing, practical skills consolidating skills and developing competence and independence on machines and CAD used during the last two terms. Application of finishes. <b>Material:</b> 6mm MDF, HIPS. <b>CAD/CAM:</b> Vinyl cutter</p>				Curriculum Enrichment Week
<b>Reporting Y8</b>		CfCs		BfL & LAL		BfL & LAL		BfL & LAL		BfL & LAL		BfL & LAL		
<b>Year 8</b>	Health and safety instruction	<p><b>Rotation of 3x projects</b> - To allow all groups to complete the graphics project in 113. <b>Graphics project:</b> Endangered species 6 week project where students research and investigate causes why animals become endangered - links to ecological concerns. Culminating in a logo to promote awareness. <b>Skills:</b> research of endangered species, analysis of logo design, design and development of ideas in CAD (building on CorelDraw skills taught in Y7). <b>Birdfeeder project:</b> Introduction to Engineering. <b>Materials:</b> Aluminium sheet, HIPS <b>Processes:</b> reading orthographic drawings, marking out, cold metal forming, vacuum forming, riveting. <b>Maths link:</b> Tolerances. <b>Clocks part 1:</b> Production of clock carcass. <b>Materials:</b> 18mm MDF. <b>Processes:</b> developing marking out skills, blind hole drilling dowel joints. <b>Literacy:</b> "Best production plan step EVER!"</p>						<p><b>Clocks Project (part 2):</b> skills covered, design ideas drawn in 3d, rendered, planning and development of ideas. Building on skills and competences developed during Y7, students have more scope for customisation. Changing drill bits. <b>Material:</b> 18mm MDF, plus materials students bring in. <b>CAD/CAM:</b> Laser cutter mdf parts for clock. <b>Literacy:</b> comparison of ideas. <b>Movement:</b> Art Deco</p>						Curriculum Enrichment Week
<b>Reporting Y9</b>		CfCs		BfL & LAL		BfL & LAL		BfL & LAL		BfL & LAL		BfL & LAL		
<b>Year 9</b>	Health and safety instruction	<p><b>Polymers:</b> Students learn about Polymer production and their impact on the environment, link to ecological concerns, introduction to iterative design (phone holder), commercial production, classifications of two types of polymer. <b>Materials:</b> Acrylic. <b>Processes:</b> Strip heater, injection moulding. <b>CAD/CAM:</b> Laser cut models. <b>Focus of folder work:</b> creative design and presentation.</p>			<p><b>Timbers:</b> Students learn about timber production and their impact on the environment, link to ecological concerns, introduction to more complex construction joints (halving and tenon joints), how manufactured boards are made. <b>Materials:</b> Pine, plywood, 9mm MDF. <b>Processes:</b> construction techniques, laminating, natural timber finishes.</p>			<p><b>Systems and Control:</b> Students solder a nightlight circuit, learning about; PCB production, input - process - output, component symbols and values (links to science but not sure where/how) <b>Maths link:</b> Resistor colour codes, tolerances, nets. <b>Processes:</b> Soldering, manufacture of net for packaging.</p>			<p><b>Sustainable design project:</b> Final design and make project giving students opportunities to use materials and processes of their choosing. Developing competence and confidence on machines. <b>Pen Pot project:</b> Focused team working project where students have to produce a batch of pen pots.</p>			Curriculum Enrichment Week



	Autumn 1		Autumn 2		Spring 1		Spring 2		Summer 1		Summer 2		
Reporting Y10		CfCs		BfL & Grades		CfCs		BfL & Grades		BfL & Report			
Year 10 Graphics	Introduction to Graphic Design	<b>Unit 1- Introduction to graphic design components</b> - Students will be producing a PowerPoint presentation to show their understand of the 6 main components. Imagery, typography, line, composition, colour and tone. Students will be learning how to analyse existing examples of good graphic design and will be experimenting using software. Students will be using Corel Draw, Photoshop and Illustrator. Students will develop a poster for a social campaign such as deforestation / global warming. link to ecological concerns.					<b>Unit 2: Work of others</b> . Students are to research a graphic design discipline of their choice. They will learn the difference between formats and sources and can justify how reliable they are. They are to develop their understanding of design components by annotating the work of designers. Develop their skills on software as they create a design which is influenced by the chosen designer on Photoshop / Corel Draw / Illustrator.						Work Experience Week
Year 10 Engineering		Health and safety Preparation for assignment. <b>Put n' Take game:</b> Students learn about engineering organisations, introduction to Centre Lathe. Risk assessments.	<b>Component 1 Assignment A</b>	Preparation for assignment. <b>Coat hook:</b> Students learn about designing in engineering through an aluminium casting design and make project. CAD drawing. Introduction to the Turret Mill.	<b>Component 1 Assignment B</b>	Preparation for Component 2: <b>Theory work into material properties.</b>	<b>Component 2 Assignment A</b>	<b>Component 2 Assignment B</b>	<b>Component 2 Assignment C</b>				
Year 10 Resistant Materials		Health and safety instruction <b>Revision box:</b> Classification of 3 types of timber, properties and specific types identified, production methods involved from raw to stock form links to ecological concerns,, environmental impacts, tools and processes involved when working on them inc router, construction methods hinges, dowel joints, finishes applied. Student learn theory whilst making the box and then fill it with revision resources inc flash cards, sample materials.	<b>Flat Pack Rack:</b> students learn about mass production techniques, CAD/CAM in industry, QC, knock down fittings, JIT production. Card net box produce with laser cutter.	<b>Iterative design project:</b> mini GCSE NEA project, to develop on iterative design task in Y9. Desk lamp design brief. Electronics, user defined specification. Students use range of strategies to design and develop working model.	<b>Smart and composite materials:</b> Students learn about a range of different smart and new materials	<b>Mechanisms / forces / structures:</b> Students make a revision pack of levers, linkages, gears whilst learning the theory.	<b>NEA:</b> Students begin NEA section A.						
Reporting Y11		CfCs & Grades		Rep & Grades		CfCs & Grades		BfL & Grades					
Year 11 Graphics	Health and safety	<b>Unit 3</b> - how to respond to a brief. Students learn how to analyse a brief. .i.e. target user, client requirements. They are to draw design ideas and experiment with different components. Write evaluations.	<b>10 hour PPE split into five 2 hour exams</b>	<b>Exam Prep:</b> Go over the PPE. Revise all 6 components. A series of short briefs at the begging of lessons to prepare hem for thinking on the spot	<b>EXAM</b>	<b>Unit 4:</b> Research how designers present their work and career paths into Graphic Design. Students to create a portfolio of their work produced over the duration of the course.							
Year 11 Engineering		Health and safety instruction <b>Preparation for Component 3.</b> Follow text book of tasks, data collection methods, recording and presenting data, analysing results. CAD drawing, design development. Revision of materials and processes covered in Com1 and Com 2.	Topic for Component 3 released. Preparation.	<b>First attempt at Component 3 - external examination</b>	Preparation/revision for students who have not passed Component 3.			<b>Second attempt at Component 3 - external examination</b>					
Year 11 Resistant Materials	Health and safety instruction	<b>NEA section A and B</b> - analysis of design brief provided by the exam board, range of research tasks carried out including site surveys, client interviews and product analysis. Students will write their own design brief and support it with a detailed specification.	<b>NEA section C</b> - Generation of a range of solutions to the brief, designs are to be innovative and original, students are to demonstrate a range of techniques to produce ideas.	<b>NEA section D</b> - Students will develop ideas using the iterative design process, designing, modelling, evaluating and improving design ideas.	<b>NEA section E</b> - Realisation - students will use workshop facilities to produce a working prototype of their developed solution	<b>NEA section F</b> - A full evaluation of the final prototype is carried out, including testing and a full client review.	<b>Revision and preparation for exam</b>						