KS3 Design Technology Key Stage 3 Curriculum Overview

	Autumn Term	Spring Term	Summer Term
Year 7	- Health and Safety - Alessi Project - Poto Frame Project	- Sweetie Pie Graphics Project - Pencil Holder Project	- Graphical communication with IsoSketch tools
Year 8	- Cultural Clock Project - Health and Safety using machines	- Chocolate Wrapper – graphical communication - Chocolate bar design - Vacuum forming	- Pop-up card project with mechanical devices - Graffiti door sign project

Year 9	- USB Light project
	  ○ CAD/CAM
	  ○ Comb joint
	- Theory - materials
		- Graphical Presentation techniques
		  ○ Isometric
		  ○ Orthographic
		  ○ 2-point perspective
		  ○ Shading/rendering
			- Architectural design project (garden room) based on a range of designers

KS4 Design Technology Key Stage 4 Curriculum Overview

	Autumn Term	Spring Term	Summer Term
Year 10 GCSE	- Theory – general materials - Specialist Material theory - timbers - Bird box project based on designers (Design theory)	- Specialist Material theory – timbers - Mock NEA - Common specialist technical principles ▪ 6Rs	- Mock NEA – design ideas and modelling - Mock exam - Non Examined Assessment set from the exam board (AQA) from 1st June

		▪ Eco Designs ▪ Scales of Production ▪ Improving functionality	
Year 11 GCSE	- New and Emerging Technologies Developments in New Materials - - NEA – development and making	- NEA – Making and evaluating - Energy, Materials, Systems and Mechanical Devices	- Exam preparation
Year 10 OCR Nationals Design Engineering	- Topic area 1: Designing processes R038 - Bottle opener project including designing and modelling skills - Solidworks CAD Basics	- Topic area 2: Design Requirements - Topic area 3: Communicating Design Outcomes - R039 Mock assignment - Communicating Designs (torch project)	- R039 Assignment Communicating Designs – set from OCR
Year 11 OCR Nationals Design Engineering	- Unit R040 Assignment Design evaluation and modelling - Topic area 4: Evaluating Design Ideas	- Unit R040 Assignment Design evaluation and modelling	- Exam preparation

KS5

Design Technology Key Stage 5 Curriculum Overview

	Autumn Term	Spring Term	Summer Term
Year 12 AQA Product Design (3D-Design)	- Theory: - Material properties - Polymers and processes - Timbers, processes and finishes - Metals, processes and finishes - Paper, card and board - SMART materials - Composite materials - Timber/Polymer based design and make task	- Theory: - Modern and Industrial Scales of Production - Digital Design and Manufacture - Anthropometrics and Ergonomics - Health and Safety - Protecting Designs and Intellectual Property - Design for Manufacturing, Maintenance, Repair and Disposal - Mock NEA design skills in preparation for NEA	- NEA – students to plan own design and make task - Mock exam
Year 13 AQA Product Design (3D-Design)	- Theory: - Design Theory - Technological/Cultural - Changes and Product Life Cycle - Responsible Design - NEA individual projects	- Enterprise and Marketing - Selecting Tools and Accuracy in Design and Design - Design for Manufacture and Project Management - National and International Standards in Product Design - NEA individual projects	- Exam Preparation and revision of topics