



KS3

Design Technology Key Stage 3 Curriculum Overview

	Autumn Term	Spring Term	Summer Term
Year 7	<ul style="list-style-type: none">- Health and Safety- Alessi Project- Photo Frame Project	<ul style="list-style-type: none">- Sweetie Pie Graphics Project- Pencil Holder Project	<ul style="list-style-type: none">- Graphical communication with IsoSketch tools
Year 8	<ul style="list-style-type: none">- Cultural Clock Project- Health and Safety using machines	<ul style="list-style-type: none">- Chocolate Wrapper – graphical communication- Chocolate bar design- Vacuum forming	<ul style="list-style-type: none">- Pop-up card project with mechanical devices- Graffiti door sign project
Year 9	<ul style="list-style-type: none">- USB Light project<ul style="list-style-type: none">o CAD/CAMo Comb joint- Theory - materials- Mechanisms – pneumatic design challenge	<ul style="list-style-type: none">- Graphical Presentation techniques<ul style="list-style-type: none">o Isometrico Orthographico 2-point perspectiveo Shading/rendering	<ul style="list-style-type: none">- 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	<ul style="list-style-type: none"> - Theory – general materials - Specialist Material theory - timbers - Bird box project based on designers (Design theory) 	<ul style="list-style-type: none"> - Specialist Material theory – timbers - Mock NEA - Common specialist technical principles <ul style="list-style-type: none"> ▪ 6Rs ▪ Eco Designs ▪ Scales of Production ▪ Improving functionality 	<ul style="list-style-type: none"> - Mock NEA – design ideas and modelling - Mock exam - Non Examined Assessment set from the exam board (AQA) from 1st June
Year 11 GCSE	<ul style="list-style-type: none"> - New and Emerging Technologies Developments in New Materials - - NEA – development and making 	<ul style="list-style-type: none"> - NEA – Making and evaluating - Energy, Materials, Systems and Mechanical Devices 	<ul style="list-style-type: none"> - Exam preparation
Year 10 OCR Nationals Design Engineering	<ul style="list-style-type: none"> - Topic area 1: Designing processes R038 - Pizza cutter handle project - Solidworks CAD Basics 	<ul style="list-style-type: none"> - Topic area 2: Design Requirements - Topic area 3: Communicating Design Outcomes - R039 Assignment Communicating Designs 	<ul style="list-style-type: none"> - R039 Assignment Communicating Designs - Topic area 4: Evaluating Design Ideas
Year 11 OCR Nationals Design Engineering	<ul style="list-style-type: none"> - Unit R040 Assignment Design evaluation and modelling 	<ul style="list-style-type: none"> - Unit R040 Assignment Design evaluation and modelling 	<ul style="list-style-type: none"> - Exam preparation



KS5

Design Technology Key Stage 5 Curriculum Overview

	Autumn Term	Spring Term	Summer Term
Year 12 AQA Product Design (3D-Design)	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> - 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 and make task 	<ul style="list-style-type: none"> - NEA – students to plan own design and make task - Mock exam
Year 13 AQA Product Design (3D-Design)	<ul style="list-style-type: none"> - Theory: - Design Theory - Technological/Cultural - Changes and Product Life Cycle - Responsible Design - NEA individual projects 	<ul style="list-style-type: none"> - 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 	<ul style="list-style-type: none"> - Exam Preparation and revision of topics