

KS3 Design & Technology



MAIDEN ERLEGH
CHILTERN EDGE

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
YEAR 7 1Hr	<u>Photo Stand</u> Students will look at a range of techniques and designers, using wood and metal to create a photo stand.	Students will complete and evaluate their Photo Stand. Students begin to look at a range of wood work skills.	<u>Wooden Knot</u> Students will continue their exploration of wood creating joints to make a wooden knot. Evaluation of work.	Food Tech Rotation	Food Tech Rotation	Food Tech Rotation
YEAR 8 1Hr	<u>Pewter Medallion</u> Students will look develop a range of drawing and design techniques and design a pewter cast piece.	Students will finish their pewter casting and evaluation. Students will begin to research into desk lamp design.	<u>Desk Lamp</u> Students will develop their designs into creating a desk lamp. Evaluation of Lamp.	Food Tech Rotation	Food Tech Rotation	Food Tech Rotation
YEAR 9 1Hr	<u>Clock</u> Students will explore a range of designers and graphic rendering techniques in designing their clock using acrylic .	Students will finish their clock and evaluate their work. Students will study and reflect on modern and historical architecture design.	<u>Architectural Model</u> Students will create their own personal response in the form of an architectural model.	Food Tech Rotation	Food Tech Rotation	Food Tech Rotation

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	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
YEAR 10 3Hrs	<ul style="list-style-type: none"> * Manufacturing methods, assess knowledge * Market Pull/Technology Push * Orthographic drawing <p>People Society and Culture</p> <ul style="list-style-type: none"> * Sustainability and the environment * Amplifier Project- * Isometric & Ortho test, * Sustainable design * Ethics 	<ul style="list-style-type: none"> * Renewable and non-renewable resources * Hanoi Project -Construction squares * Energy storage and systems * Drilling, H&S Sign off sheets <p>Construction – drilling and cutting</p> <ul style="list-style-type: none"> * Systems approach to designing * Types of motion, classes and mechanisms * Tap & Die, threading centre rod * Dowelling and fixing * Types of motion, modelling * Hanoi Project- Final construction * Modern & Smart materials. 	<ul style="list-style-type: none"> * Material Properties: Polymers, Fibres natural and synthetic <p>Project – Ideas</p> <p>Assessment</p> <ul style="list-style-type: none"> * Materials: Composite; Textiles (Natural & Synthetic); Papers/Boards; Woods; Metals; Polymers. <p>Project – Ideas, modelling</p> <ul style="list-style-type: none"> * Material Properties: Key definitions (toughness etc) <p>Project – Chosen Idea development, modelling and testing</p> <ul style="list-style-type: none"> * Primary investigation of material area/s through product analysis 	<ul style="list-style-type: none"> * Primary investigation cont. phone stand. * Final design and Manufacturing Specification * Stresses on materials. * Phone stand evaluation. <p>Project Practical</p> <ul style="list-style-type: none"> * Communicating ideas, rendering, modelling * The 6Rs, ecological issues in manufacturing * Material Properties and Qualities, Sustainability in design (6Rs) and impact from manufacturing. * Iterative designing, applying 	<ul style="list-style-type: none"> * Working and physical properties of materials * Modifying properties for a purpose...composites? * Forms of supply and sizes, conversion * Scales of Production, discuss how practical could be batch or mass manufactured * Tolerances and quantity production * Modifying material properties, forms of supply, timber conversion, tolerances and QC/QA. 	<ul style="list-style-type: none"> * Tolerances, QA & QC * Preparation and finishing materials * Independent research into a designer or company <p>Exam</p> <ul style="list-style-type: none"> * NEA Intro, Design Context/Challenges discussed * NEA Contexts <p>chosen, design needs started with primary research.</p>
YEAR 11 3Hrs	<ul style="list-style-type: none"> * NEA –Ergonomic/ Anthropometric research, Product Analysis * NEA –Ergonomic/ Anthropometric research, Product Analysis * NEA –Design Brief & Specification 	<p>NEA</p> <p>Revision Theory</p>	<p>NEA</p> <p>Revision</p>	<p>NEA Final hand in</p> <p>Revision</p>	<p>Final Exam</p>	