

KS3 'Design and Technology' Curriculum Coverage: 2022 – 2023



Year 8

Sequenced	Timbers- Money box	Food and Nutrition- Eatwell guide	Papers and Boards- Activity pack	Timbers- Lamp	Papers and Boards- The bistro shop front project	Food and Nutrition- Eatwell guide & where our food comes from
Key Knowledge	<p>To know:</p> <ul style="list-style-type: none"> how to select and use the correct tools and equipment (marking gauge, try square, steel rule, tenon saw, vice, sander) how to spot hazards such as inappropriate use of tools and equipment. the safety procedures, such as when to wear goggles, correct use of tools and machinery how to evaluate (give an opinion) and annotate (e.g. name the finishes and what their design is based on) what CAD (2D design) is and why we use it to develop two dimensional designs 	<p>To know:</p> <ul style="list-style-type: none"> the 4 big groups on the Eatwell Guide the difference between carbohydrates, protein and dairy. how to self and peer assess following set criteria the functional properties of ingredients: coagulation, raising agents 	<p>To know:</p> <ul style="list-style-type: none"> how to use research to design effective logos how to analyse and develop ideas from existing designs how to evaluate and annotate how to use CAD effectively, focusing on 2D design for the maze and Publisher for the activity booklet how to use a variety of approaches, to generate creative ideas and avoid stereotypical responses and have an understanding of new and emerging technologies how automation works and how it is affecting the workplace. and understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists 	<p>To know:</p> <ul style="list-style-type: none"> how to select the correct tools and equipment on a CAD package (2D design and the laser cutter) how to use water-based stain accurately and to further develop an understanding in the use of acrylic to develop a three dimensional product and understand why accurate measuring and marking skills are important to a good outcome for instance when designing using CAD (2d design) what CAD (2D design) is and why we use it to develop three dimensional product 	<p>To know:</p> <ul style="list-style-type: none"> how to use CAD effectively, focusing on 2D design for the initial template and Photoshop for the layer of imagery how to use research and exploration, such as the study of different cultures, to identify and understand user needs how to develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations how to develop and communicate design ideas using annotated sketches, detailed plans, 3-D modelling, oral and digital presentations and computer-based tools 	<p>To know:</p> <ul style="list-style-type: none"> all the groups on the Eatwell Guide why we need fats, fibre and water. where we source our food from The functional properties of ingredients: creaming, raising agents
Key Skills	<p>To be able to:</p> <ul style="list-style-type: none"> use tools equipment and machinery safely and accurately (mortise and bevel chisels) to manufacture shoulder or lapped joints demonstrate good annotation and evaluation of their work using the correct terminology use 2D design effectively to produce a two dimensional prototype 	<p>To be able to:</p> <ul style="list-style-type: none"> identify which of the 4 big groups on the Eatwell Guide foods belong to work effectively individually and during paired work develop ideas through practical and design tasks use a range of intermediate cooking techniques: baking, stir-frying, sautéing, reduction method, accurate weighing and measuring, knife skills 	<p>To be able to:</p> <ul style="list-style-type: none"> use CAD effectively, focusing on 2D design effectively to create a maze and colouring book. investigate new and emerging technologies use the die cutter. select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture 	<p>To be able to:</p> <ul style="list-style-type: none"> use tools, equipment and machinery safely and accurately (laser cutter) demonstrate accurate measuring and marking out using 2D design further develop the use 2D design to effectively and accurately to produce a three dimensional prototype of a lamp using a comb joint 	<p>To be able to:</p> <ul style="list-style-type: none"> use CAD effectively, focusing on photoshop effectively to create a shop front use a variety of approaches to generate creative ideas and avoid stereotypical responses 	<p>To be able to:</p> <ul style="list-style-type: none"> discuss the function of fat, fibre and water in the diet identify whether food has been grown, reared or caught use a range of intermediate cooking techniques: boiling, sautéing, sauce making, simmering, reduction, creaming
	Tier 3 key vocabulary	Tier 3 key vocabulary	Tier 3 key vocabulary	Tier 3 key vocabulary	Tier 3 key vocabulary	Tier 3 key vocabulary
Subject specific	<ul style="list-style-type: none"> shoulder joint tenon saw marking gauge sander evaluate design annotate CAD 2D design Ploughed groove 	<ul style="list-style-type: none"> gelatinisation excess deficiency oedema enzymes antibodies pasteurisation homogenisation carbohydrate Protein Dairy Coagulation 	<ul style="list-style-type: none"> research acrylic CAM specification aesthetics function product analysis manufacture evaluate design die cutter vectorise 	<ul style="list-style-type: none"> comb or finger joint laser ply acrylic laser cutter 	<ul style="list-style-type: none"> grey board culture photoshop bistro model 	<ul style="list-style-type: none"> grown reared caught fibre fat hydration aquaculture sustainability arable hatchery hydroponics

