

KS3 'Design and Technology' Curriculum Coverage:



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	To know: - 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	To know: - 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	To know: - 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	To know: - 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	To know: - 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	To know: - 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	To be able to: - 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	To be able to: - 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	To be able to: - 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	To be able to: - 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	To be able to: - 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	To be able to: - 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	- shoulder joint - tenon saw - marking gauge - sander - evaluate - design - annotate - CAD 2D design - Ploughed groove	- gelatinisation - excess - deficiency - oedema - enzymes - antibodies - pasteurisation - homogenisation - carbohydrate - Protein - Dairy - Coagulation	- research - acrylic - CAM - specification - aesthetics - function - product analysis - manufacture - evaluate - design - die cutter - vectorise	- comb or finger joint - laser ply - acrylic - laser cutter	- grey board - culture - photoshop - bistro - model	- grown - reared - caught - fibre - fat - hydration - aquaculture - sustainability - arable - hatchery - hydroponics

