

## Curriculum Plan: Design Technology

	Autumn Term	Spring Term	Summer Term			
	Rotation 1 DT	Rotation 2 DT	Rotation 1 FOOD		Rotation 2 FOOD	
<b>Year 7</b>	<b>Health &amp; Safety / Wind chime</b>	<b>Health &amp; Safety/ Jewellery</b>	<b>Food &amp; Nutrition</b>		<b>Food &amp; Nutrition</b>	
	<p>Introduction to Health &amp; Safety, workshop rules and contract.</p> <p>Design: Use specifications and working drawings to guide design ideas</p> <p>Make: Select and use specialist tools – Hacksaws, files, coping saws, abra-files, rules, centre punch, engineers' vice</p> <p>Project looks at familiarising students with tools and equipment not used at primary school.</p> <p>Pillar drill- Clamping, drilling jigs.</p> <p>Metal lathe (with supervision)</p> <p>Accuracy of marking out.</p> <p>Properties of wood metal and plastics.</p> <p>Evaluation: against a specification, taking into account the views of others.</p>	<p><b>Introduction to Health &amp; Safety, workshop rules and contract.</b></p> <p>Design: Research and study different cultures, <b>designers and design movements with a focus on finding design inspiration from the natural world.</b></p> <p>Communicate ideas using a range of initial sketches followed by more detailed annotated drawings. <b>Drawing skills will include accuracy, correct use of equipment and orthographic projection.</b></p> <p>Identify user needs, <b>considering safety, comfort and preference.</b></p> <p>Develop Specifications <b>ensuring accuracy of their jewellery outcome.</b></p> <p><b>Understanding the purpose of a design brief.</b></p> <p>Make: Select from specialist tools - <b>coping</b></p>	<p>1<sup>st</sup> half term</p> <p><b>Introduction to hygiene and safety:</b> Expectations. Hazards &amp; equipment. The 4C's.</p> <p><b>Practical skills:</b> Bridge hold and claw grip methods. Use of the grill, hob, oven and assembling techniques.</p> <p><b>Healthy Eating:</b> The Eatwell guide and the government's eight healthy eating recommendations.</p> <p>Introduction to nutrition.</p> <p><b>Commodities:</b> Fruit and vegetables. Classification. Seasonal and</p>	<p>2<sup>nd</sup> half term</p> <p><b>Cereals:</b> Primary processing of oats and rice.</p> <p><b>Seasonal Foods:</b> The British cuisine using apples.</p> <p><b>Designing a healthy cereal bar:</b> Application of healthy eating and adapting dishes to make them healthier.</p> <p><b>Food provenance:</b> Where food comes from and food waste. How to use leftover ingredients to make nutritional dishes.</p>	<p>1<sup>st</sup> half term</p> <p><b>Hygiene and safety recap:</b> Key terms and the definitions.</p> <p><b>Practical skills:</b> Safe use of the microwave. Grating.</p> <p><b>Nutrition:</b> Fibre and water. The importance and the sources.</p> <p><b>Food science:</b> Yeast, a biological raising agent. Experiment with types of yeast.</p> <p><b>Dairy:</b> Yogurt analysis and tasting. Milk - Pasteurisation.</p> <p><b>Evaluation types:</b> Sensory evaluation and the differences between a preference and hedonic tests.</p>	<p>2<sup>nd</sup> half term</p> <p><b>Food styling and flavours:</b> Examining how foods are flavoured and presented from different cultures.</p> <p><b>Religion and food:</b> Types and reasons.</p> <p><b>Poultry project:</b> Research and temperature control and how to prevent food poisoning in meat.</p> <p><b>Allergens and food intolerances:</b> Coeliacs. Lactose. Nut allergies. Dietary requirements and the alternatives.</p>

		<p>saw, needle files, jewellers peg, pillar drill</p> <p>Project looks at familiarising students with tools and equipment not used at primary school, making cross curricular links and fostering a connection to industry.</p> <p>Properties of manufactured and natural wood</p> <p>Evaluate: Against a specification, taking into account the views of others.</p> <p>Technical knowledge: use of jewellery specific tools, development of subject specific vocabulary and an understanding of production scale.</p>	benefits of fruits and vegetables.			
Year 8	Health & Safety / Acrylic Clock	Health & Safety 3D Room/Architectural model	Food & Nutrition		Food & Nutrition	
	<p>Recap Health &amp; Safety requirements - including workshop rules and contract.</p> <p>Design: Research and exploration – looking at the work of designers/design eras. (Memphis/Alessi)</p>	<p>Recap Health &amp; Safety requirements - including workshop rules and contract.</p> <p>Design: drawing a room plan and isometric room design inspired by their own room</p>	<p>Hygiene and safety: Recap food hygiene and introduction of where bacteria come from.</p> <p>Nutrition: Macro and Micro Nutrients</p>	<p>Recap- Eat well Guide/ healthy eating</p> <p>Seasonal cooking: Importance of using locally produced foods.</p> <p>Food Provenance:</p>	<p>Special diets: Diabetes, stroke; CHD etc</p> <p>Food choices: Factors affecting food choices</p> <p>Food waste: exploring Food waste and its</p>	<p>Labelling: Traffic light labelling</p> <p>Raising Agents: Mechanical and Chemical.</p> <p>Pastry Making: types, shortening and Lamination.</p>

	<p>Communicate ideas using a range of initial sketches followed by more detailed annotated drawings.  <b>Make:</b> Select and use specialist tools and equipment, techniques and processes -          Focus on accuracy and quality of finish.          Industrial manufacturing techniques – Design development using traditional modelling and CAD - laser cutter.          Evaluation: of traditional manufacturing techniques verses CAD CAM.          Evaluation: against a specification, taking into account the views of others</p>	<p><b>Research and exploration – Pop Art aesthetic</b>  <b>Make:</b> exploration of card construction methods to create furniture.  <b>Project focus is to strengthen pupil accuracy and drawing skills, to ensure a solid foundation skill set.</b>  <b>Evaluate:</b> Against a specification, taking into account the views of others.  <b>Technical knowledge:</b>  <b>Drawing in plan and isometric view.</b>  <b>Paper and card construction techniques.</b>  <b>Use of cutting tools.</b></p>	<p><b>Cereals: Wheat.</b>          primary and secondary processing  <b>Food science:</b>  <b>Pasta making demonstration:</b>  <b>Sauces and gelatinisation</b></p>	<p><b>International cuisines</b>  <b>Food Science:</b>          Caramelisation.  <b>Evaluation:</b>          Planning and evaluation of signature dish.</p>	<p>effects on the environment.  <b>Cake making:</b>          methods adapting recipes for Healthy Eating</p>	<p><b>Sensory Analysis and evaluation:</b>          sensory Charts and descriptors.  <b>Food Storage:</b>          Ambient; chilling; freezing and drying  <b>Sugar:</b> Processing; types and its impact on our health</p>
Year 9		<p><b>Health &amp; Safety 3D Room/Architectural model</b></p>	<p><b>Food &amp; Nutrition</b></p>		<p><b>Food &amp; Nutrition</b></p>	
		<p><b>Recap Health &amp; Safety requirements - including workshop rules and contract.</b>  <b>Design: drawing a room plan and isometric room design inspired by their own room</b>  <b>Research and exploration – Pop Art aesthetic</b></p>	<p><b>Nutrition and Health Module:</b>          Recap on hygiene and safety:          Healthy and safety contract.  <b>Macro Nutrients and Micro:</b>          Sources, functions and deficiencies.</p>	<p><b>Nutrition and Health: Diet</b> related issues in teenagers  <b>Food provenance:</b>          Sustainability and the impact on the environment.          Organic foods and genetically</p>	<p><b>Food Hygiene:</b>          Bacteria types and food poisoning.  <b>Foods from around the World:</b>          Catering for different cultural needs  <b>British Cuisine:</b>          Research traditional British</p>	<p><b>Food science experiments:</b>          Enzymic browning and dextrinization.  <b>Investigation task</b>  <b>NEA- Mini food science project.</b>          Writing a hypothesis.  <b>Mini GCSE project.</b>          Researching.</p>

		<p><b>Make:</b> exploration of card construction methods to create furniture. Project focus is to strengthen pupil accuracy and drawing skills, to ensure a solid foundation skill set.</p> <p><b>Evaluate:</b> Against a specification, taking into account the views of others.</p> <p><b>Technical knowledge:</b> drawing in plan and isometric view. Paper and card construction techniques. Use of cutting tools</p>	<p><b>Tots to Teens:</b> Diet through life stages. Energy through life stages: BMI, energy balance Nutrition and Health: Case studies Cooking Methods and Heat transfer: Links to food science</p>	<p>modified. Food miles. Food choices and religion: Factors affecting food choices. Cooking for different occasions- Design and make Christmas cake/ Easter cooking.</p>	<p>foods and eating patterns. Great British bake-off challenge: Afternoon tea.</p>	<p>Evaluating and writing a time plan.</p>
Year 10			<p><b>Nutrition:</b> Macronutrients and micronutrients. Sources. Functions. Deficiencies <b>Diets:</b> What a balanced diet is. <b>Diet and health:</b> Diabetes. Obesity. Rickets. Cardiovascular. Osteoporosis. <b>Energy:</b> Requirements for</p>	<p><b>Food science:</b> Experiments – Gelatinisation. Coagulation. Dextrinisation. Emulsification. Caramelisation. <b>Heat transfer:</b> Reduction, radiation and convection. Microwave oven (Electromagnetic rays) <b>Methods of heat transfer and</b></p>	<p><b>Food Spoilage and contamination:</b> Factors affecting Food Choice. <b>Functional and chemical properties of Food:</b> Proteins; carbohydrates; fats and oils. Raising agents <b>Sensory Evaluation:</b> Using senses to evaluate food.</p>	<p><b>Factors affecting food choices:</b> <b>NEA 1 Mock:</b> Food science investigation. Religion and culture. British and International cuisines. <b>NEA 2 Mock:</b> Research. Technical dishes. Final dishes. Evaluation. Food labelling and marketing.</p>

			<p>life stages. PAL &amp; BMR.</p> <p><b>Special diets in society:</b></p> <p>Vegetarians – Vegans. Lacto Lacto-ovo.</p> <p>Dietary requirements for life stages.</p>	<p><b>cooking of food:</b></p> <p>Cooking with fat, dry heat, water.</p> <p>How cooking affects the nutrients.</p>	<p>Sensory tasting methods.</p>	
Year 11			<p><b>Recap:</b> Knife skills and decoration/ garnishing skills.</p> <p><b>NEA 1:</b></p> <p>Exam Board task Investigation Task</p> <p><b>NEA 2:</b> Food Preparation, cooking and Nutrition</p>	<p><b>Practical exam</b></p> <p><b>NEA:</b> Costing, Nutritional analysis and Evaluation</p> <p><b>Food Provenance:</b></p> <p>Environmental impact and sustainability.</p> <p><b>Processing and production:</b></p> <p>Food sources, food and the environment.</p> <p>Food production.</p> <p>Technological developments.</p>	<p><b>Food Safety principles of food Safety:</b> Buying Food and Storing Food.</p> <p>Preparing cooking and serving Food.</p>	<p>Revision of year 10 Topics in preparation for the theory Exam.</p>

	Design	
	Make	
	Evaluate	
	Technical Knowledge	
	Cooking & Nutrition	