Mulberry Academy Woodside

KS4 Design & Technology (Food Preparation & Nutrition)

Curriculum Overview 2023 - 2024

Curriculum intent statement:

In Design & Technology at Mulberry Academy Woodside, we encourage our learners to become creative problem-solvers, equipped with the skills and knowledge to thrive in an ever-evolving world. We believe in fostering a passion for innovation, sustainability and a practical application of design principles in the disciplines of Product Design, Textiles, Electronics and Food. This is achieved through hands-on experiences and interdisciplinary learning, allowing learners to develop their critical thinking, communication, collaboration and problem solving skills. Our curriculum is designed to cultivate curiosity, ignite imagination, and instil an indelible appreciation for the role of design in shaping the world around us.

AQA Food Preparation & Nutrition

50% of qualification- Paper 1 (Theoretical knowledge of food preparation and nutrition from Sections 1 to 5)

This exam contains a selection of multiple choice questions which are worth a total of 20 marks and a further five questions each with a number of sub questions which are worth a total of 80 marks.

50% of qualification- Non Examined Assessment (NEA)

Task 1 (Food investigation): Students must produce a written or electronic report (1,500–2,000 words) including photographic evidence of a practical investigation where they display their understanding of the working characteristics, functional and chemical properties of ingredients. This section is worth 30 marks.

Task 2 (Food preparation assessment): Students must prepare, cook and present a final menu of three dishes. They must then produce a written or electronic report in relation to the planning, preparation, cooking, presentation of food and application of nutrition related to the chosen task. This section is worth 70 marks.

KS4		AUTUMN TERM		SPRING TERM		SUMMER TERM	
		TERM 1A	TERM 1B	TERM 2A	TERM 2B	TERM 3A	TERM 3B
YEAR 10	KNOWLEDGE	-Macro and micro nutrients -Protein -Fats -Carbohydrates -Vitamins -Minerals	-Raising agents -Food investigation task	-Food Choice -British and international cuisine -Food Provenance -GM Foods -Dietary needs	-Heat transfer -Functional and chemical properties of protein -Functional and chemical properties of carbohydrates -Functional and chemical properties of fats and oils	-Sensory Analysis -How we taste food -Sensory testing methods	- Food Preparation task mock -Task is mainly practical based and will showcase a range of food preparation and technical skills
	SKILLS	**General practical skills** (weighing, measuring, preparing ingredients & equipment, selecting and adjusting cooking times, testing for readiness and judging and modifying sensory properties). **Knife skills** (bridge hold, claw grip, peel, slice, dice and cutting into even size pieces (ie batons, julienne). Filleting a chicken breast, portioning a chicken, removing fat and rind, fillet fish, slice evenly and accurately: raw and cooked meat and fish or alternatives (such as tofu and halloumi cheese).					

		Preparing fruit and vegetables (mashing, shredding, scissor sniping, scooping, crushing, grating, peeling, segmenting, de-skinning, de-seeding, blanching, shaping, piping, blending, juicing and preparing garnishes whilst demonstrating the technical skills of controlling enzymic browning, spoilage and preventing food poisoning (wash and dry where appropriate). **Use of the cooker** (Using a range of foods, such as vegetables, meat, fish or alternatives such as halloumi, seeds and nuts; char/grilling or toasting. Baking, roasting, casseroles and/or tagines, braising.) **Use of equipment** (Use of blender, food processor, mixer, pasta machine, microwave oven.) **Cooking methods** (Steaming, boiling and simmering; blanching; poaching, Dry frying, shallow frying and stir frying.) **Prepare, combine and shape** (Roll, wrap, skewer, mix, coat, layer meat, fish and alternatives. Shape and bind wet mixtures (such as falafels, burgers, fish cakes or meatballs) whilst demonstrating the technical skill of preventing cross contamination and handling high risk foods correctly) **Sauce making** (Sauce demonstrating starch gelatinisation such as: roux, all in one, blended, infused velouté or béchamel. How starch/liquid ratios affect viscosity, Reduction sauce to show how evaporation concentrates flavour. Eg tomato pasta sauce, curry sauce, gravy, meat sauce (including meat alternatives such as mycoprotein and textured vegetable protein) to show how evaporation concentrates flavour and changes the viscosity of the sauce and Making an emulsion sauce such as a salad dressing, demonstrating an understanding of how to stabilise an emulsion)		
YEAR 11	KNOWLEDGE	**Food Investigation task (10 Hours)** Students investigate working characteristics and functional chemical properties of a particular ingredient through practical investigation.	**Food Preparation task (20 Hours)** Prepare, cook, and present a final menu of three dishes to meet the needs of a specific context.	**Exam preparation covering the following topics:** ● Nutrition and health ○ Macronutrients ○ Micronutrients ○ Nutritional needs and health ● Food science ○ Cooking of food and heat transfer ○ Functional and chemical properties of food ● Food safety ○ Food spoilage and contamination ○ Principles of food safety ● Food choice

				○ Factors affecting food choice ○ British and international cuisines ○ Sensory evaluation ● Food provenance ○ Environmental impact and sustainability of food ○ Food processing and production
	SKILLS	*As per year 10 skills, including:* **Tenderise and marinate** (Demonstrating how acids denature protein and Marinades add flavour and moisture when preparing vegetables, meat, fish and alternatives.) **Dough** (Use technical skills of shortening, gluten formation, fermentation (proving) for bread, pastry, pasta. Roll out pastry, use a pasta machine, line a flan ring, create layers (palmiers) proving and resting, glazing and finishing, such as pipe choux pastry, bread rolls, pasta, flatbreads, pinwheels, pizza and calzone.) **Raising agents** (Create a gas-in-liquid foam, whisking egg whites, whisked sponge, the use of self raising flour, baking powder, bicarbonate of soda, use of steam in a mixture (choux pastry, batter), use of yeast in bread making.) **Setting mixtures** (Gelation: use a starch to set a mixture on chilling for layered desserts such as custard, set a mixture on heating such as denatured and/or coagulated protein in eggs.)		