

KS4 - DT (Food)

Year 10

Golden Threads Enrichment Review and Evaluation

	Topics & Substantive Knowledge	Disciplinary Knowledge	Assessment	Misconceptions	Key Vocabulary	Knowledge Tracking
	 Pood preparation skills Development of food preparation skills. Use of different food components. 	Practicals: Cutting techniques Pasta making Jointing a chicken (chicken goujons) Chicken biryani Use of specialist equipment, e.g. pasta machine, food processor.	Ongoing informal assessment and feedback.	N/A	Claw grip Bridge hold Binding	Recap of cutting techniques from Key Stage 3. Development of complex practical skills in preparation for NEA Task 2 practical assessments.
Term 1	 Microorganisms and enzymes Enzymic browning and oxidation Bacterial contamination and causes of food poisoning Buying and storing food Preparing, cooking and serving food, including understanding of key temperatures. Food spoilage Microorganisms used in food production 	Application of food safety and hygiene practices through practical activities, including use of a food probe.	Food Safety Test	Understanding the difference between harmful and safe microorganisms in food production. Understanding that bacteria, yeasts and moulds are different microorganisms.	Microorganisms Cross-contamination Contaminants Enzymic browning Oxidation Pathogenic Enzymes Campylobacter E-coli Salmonella Listeria Staphylococcus aureus Ambient Symptoms Danger zone Expiry dates / date marks - Use by / Best before	Build on understanding of food safety and hygiene practices from Key Stage 3. Preparation for writing of a time plan as part of NEA Task 2 in Year 11
	Food, Nutrition and Health Healthy eating guidelines, e.g. 5-a-day, Eatwell Guide, NHS 8 Tips for Healthy Eating. Protein Protein and Sustainability Types of vegetarian diets	 Sources of nutrients Functions of nutrients Structure of nutrients Nutrient excess / deficiencies Protein complementation Vegetarianism and veganism Protein Practicals: Fishcakes Red lentil and chickpea soup with flatbread 	N/A	The difference between essential and non-essential protein. The difference between high biological and low biological proteins.	Eatwell Guide Sources Nutrients Biological Value Protein Amino Acids Sustainability Essential / non-essential Functions Vegetarian Excess Protein Deficiency complementation	Build on understanding of food, nutrition and health from Year 7 and 8 Food Preparation and Nutrition. Preparation for GCSE examination and NEA Task 2, particularly Section E. Development of complex practical skills in preparation for NEA Task 2 practical assessments.



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Term 2	Food, Nutrition and Health Carbohydrates (sugar, starch, fibre) Fat Vitamins and Minerals Energy Dietary needs at different life stages Diet-related health conditions Nutritional analysis	Sources of nutrients Functions of nutrients Structure of nutrients Nutrient excess / deficiencies Carbohydrate Practicals: Paella Spiced Apple Whirls / Chelsea Buns Fat Practicals: Pastry Experiments Mediterranean Vegetable Quiche Reduced Fat Lasagne Free choice practical for chosen life stage Christmas Cupcakes (focus on decorative techniques, e.g. piping)	Free Choice Practical Assessment Food, Nutrition and Health Test	Eating too much sugar causes diabetes. Reference to 'diabetes' rather than Type 2 diabetes. Incorrect assumption that Type 1 diabetes is dietrelated. Sodium may be referred to as salt.	Monosaccharides (glucose, fructose, galactose) Disaccharides (sucrose, lactose, maltose) Polysaccharides (starch, fibre, pectin, dextrin) Non-starch polysaccharide Triglyceride Glycerol Saturated Unsaturated / monounsaturated / polyunsaturated Essential fatty acids (Omega 3 and Omega 6) Thiamin Riboflavin Niacin Folic acid Ascorbic acid Antioxidant Soluble Basal metabolic rate Physical Activity Level Sedentary Body Mass Index Cardiovascular disease Obesity Hypertension Coronary heart disease Anaemia Osteoporosis	Build on understanding of food, nutrition and health from Year 7 and 8 Food Preparation and Nutrition. Preparation for GCSE examination and NEA Task 1 and 2. Development of complex practical skills in preparation for NEA Task 2 practical assessments.



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Term 3	 Why food is cooked How heat is transferred Cooking methods Functional and chemical properties of carbohydrate Functional and chemical properties of protein Functional and chemical properties of fats 	Heat-transfer methods (conduction, convection, radiation) Water-, dry- and fat-based cooking methods Carbohydrate – Gelatinisation (explored through sweet and sour practical), Dextrinization, Caramelisation Protein – gluten formation (explored through focaccia practical), foam formation, denaturation and coagulation (explored through meringue nests practical) Fats – aeration, emulsification, shortening and plasticity (explored through cheese and onion pasty practical).	Food Science Test	What braising and blanching are. Confusion between scientific terms and processes.	Convection Radiation Gelatinisation Dextrinization Caramelisation Gliadin Glutenin Gluten network Denaturation Coagulation Aeration Emulsification Emulsifier Immiscible Hydropholic Lecithin Shortening Plasticity Viscosity	Development of complex practical skills in preparation for NEA Task 2 practical assessments. Preparation for GCSE examination and NEA Task 1. Link back to previous practicals, where relevant, e.g. cheese sauce in lasagne for gelatinisation.



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n 4	Food Science Raising Agents	Biological Chemical (explored through scone experiment Mechanical (explored through rough puff sausage roll practical) Steam (explored through profiterole practical).	Scone experiment write-up		Aeration Mechanical Alkali	Link back to bread-making practicals. Preparation for GCSE examination and NEA Task 1 and 2.
Term	Food Choice Factors which influence food choice Food marketing influences	Food choice and religion Allergies and intolerances Food labelling Free choice practicals – main meal and dessert, with justifications linked to factors influencing food choice	N/A		Preference Allergies Intolerances Mandatory Interpret Ethical Legislation	Preparation for GCSE examination and NEA Task 2.



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n 5	 Sensory evaluation British and International Cuisine 	Sensory analysis testing methods Free choice practicals – one British and one International dish, identified through research.	Food choice test		Preference test Discriminatory test Grading test Olfactory Organoleptic Controls Analysis Evaluation Cuisine	Preparation for GCSE examination and NEA Task 2.
Term	Food Provenance Types of farming Food sources Environmental impact and sustainability of food	Genetic modification Additives and fortification Primary and Secondary Processing Seasonal food dish Fruit tart with crème patisserie Swiss roll with homemade jam / meringue roulade	N/A		Intensive farming Conventional farming Free-range farming Organic farming Sustainability Carbon footprint	Preparation for GCSE examination and NEA Task 2.



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 Food Provenance Food processing and production NEA Task 1 Practice Task 	Genetic modification Additives and fortification Primary and Secondary Processing Seasonal food dish Fruit tart with crème patisserie Swiss roll with homemade jam / meringue roulade	Food provenance test		Genetic modification Additives Fortification Stabilisers Primary processing Secondary processing Harvesting Pasteurisation Sterilisation	Preparation for GCSE examination and NEA Task 1 and 2.