Year 11 GCSE Revision - Food Technology

Week beginning	Topics for revision	Re-visit work	Suggested activities
	Understand the functional properties of food	functional properties of: starch, sugar, protein and fat; examine the use of: starch to thicken, gel; sugar to flavour, colour, aerate and caramelize; protein to aerate and coagulate; fats to shorten, emulsify; understand how different functional properties of foods/ingredients affect finished products and achieve desired outcomes through product appraisal, investigations and food preparation; understand: gelatinisation: sauce making, elasticity: bread making, shortening: pastry making, aeration: raising agents, cake making, emulsification: salad dressings, coagulation: setting of egg mixtures, flavouring: sweetening agents in desserts/ flavouring and herbs and spices in savoury products e.g. pasta, colouring: fats used in pastry making, setting: gelatine in mousses, fermentation: bread production; understand the terms: binding, bulking, coating, enrobing, enriching, finishing techniques, glazing, palatability, plasticity, sealing, shaping, tenderizing;	*Use the functions sheet as emailed.* *Pages 2-21 in the digital text book cover this section 105-139 functions.* *Read the section in the food preparation and nutrition booklet – digital version email to you with password and user name.* www.illuminate.digital/aqafood *access the test questions on the section in the booklet and watch the videos to increase your understanding and knowledge.* *Access past papers on the AQA website for typical questions.* *Raising agents* Food Preparation and nutrition *104-159* *Making in practical sessions record skills, equipment and ingredients.*
5th February	**Understand the nutritional properties of food**	nutritional properties of ingredients/ food products understanding of the nutritional characteristics of the main nutrients: proteins, fats, carbohydrates – sugars and starches, vitamins and minerals – Vitamins A, B, C and D, Calcium, Iron; have knowledge of nutritional advice. Interpret and apply current nutritional/healthy eating guidelines, e.g. apply the recommendations of the 'Eat well plate', 5 a day, high fibre (NSP); be able to apply the nutritional advice when analysing existing food products. Understand	https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/528193/Eatwell_guide_colour.pdf access the eatwell guide to show the balance of required diet to remain healthy. Food preparation and nutrition digital Text book 105-139 & 22-35 Balanced diet 38-57 & 70-78 https://www.vegsoc.org/join/make-the-most?utm_source=Paid%20search&utm_campaign=Membership&utm_medium=Google%20ads%20membership&utm_content=benefits&gclid=CJGhrbHC4tECFbcK0woduloIgg https://www.allergyuk.org/peanut-and-tree-nut-allergy/peanut-and-tree-nut-allergy

		that diets with deficiencies or excesses of particular nutrients may lead to health related problems; investigate nutritional and dietary needs of different target groups: including vegetarians, diabetics, coeliacs, calorie controlled, those with nut allergies and lactose intolerance;	http://www.foodreactions.org/intolerance/lactose/ Pages 56, 218-219 **Food Preparation and nutrition -** coeliacs **Pages 60 Food Preparation and nutrition BMR**
12th February	**The effects of combining different ingredients and the interaction of foods during preparation and cooking** **The importance of appropriate proportions on the structure, shape and volume of mixtures**	select and combine foods/ingredients to achieve different textures, finishes, shapes, size and appearance; understand how the following food structures are formed: solutions, suspensions, emulsions, and gels. Through practical activities, develop different types of salad dressings, sauces and cold desserts; investigate, through product development, the use of different ingredients/quantities/methods of making; demonstrate how accurate measurement, ratio and proportioning affect preparation, making and shaping of products to designated criteria to achieve acceptable outcomes; investigate the adaptation of amounts in mixtures: cakes, pastry, sauces, bread, biscuits;	Food Preparation and Nutrition • Pages 78- 155 Revision on bitesize Research recipes for mixtures for cakes, pastry, sauces, breads and biscuits Practical sessions – investigation and experimentation – preparation for sessions
19th February **HALF TERM**	**The effects of acids and alkalis**	understand factors that enable food products to be developed to designated criteria: i.e. colour, texture, storage and product profile; evaluate products and assess how the working characteristics of acids and alkalis have affected the final product Acids – the effect of vinegar on the texture of meringue; retention of colour in fruit salad, e.g. lemon juice, souring of milk, e.g. yogurt.	Practical sessions

		Alkali – the effect of corn flour on the texture of meringue; bicarbonate of soda in gingerbread;	
26th February	**Understand the use of standard components in food processing** **Demonstrate competence in a range of practical food skills/methods/processes to produce quality outcomes**	understand the advantages and disadvantages of standard components in food production; explore the use of standard components: frozen/ chilled pastry, decorations (ready-made icing, marzipan etc), pizza bases, ready-made fillings/ sauces/cake mixes/bread mixes; match materials and processes to produce products with good organoleptic qualities that are finished/presented to a high standard; apply a range of processing techniques to produce food products; present food products with the consideration of the importance of: colour, texture, flavour, shape, temperature and time, user's needs, finishing techniques; through the making of products and meals, demonstrate a wide variety of cooking skills/ processes including: fruit/vegetable preparation: peeling, slicing, grating, chopping; meat/fish/eggs/dairy products and alternative proteins (myco-protein, tofu, TVP), through a range of appropriate cooking processes; cake/biscuit making: whisking, rubbing-in, melting, creaming; sauce making: roux, all-in-one, blended; pastry making: short crust, rough puff; layering: cold desserts, cheesecake, trifle, tiramisu; bread making; finishing techniques: glazing, icings, coatings, garnishes, piping, caramelisation.	Use the information from practical planning sheets identifying skills and processes.
5th March	Design and market influences **Identify and use stages in the development of a food product prototype**	knowledge and understanding of the working characteristics of food together with processing techniques in order to design and make a food product. evaluation of existing food products apply knowledge of nutrition, functions of	Food Preparation and nutrition • Pages 292 – analyse • Pages 250-4 – sensory analysis http://explorefood.foodafactoflife.org.uk/ use theory from your controlled assessment folder

		ingredients and consumer preferences to identify how existing products/menu ideas are selected to achieve a balanced and varied diet which meets health, dietary, socio economic and cultural/religious needs of different groups within our society. use product analysis, compare a range of existing packaged products to determine how the types, proportions and functions of ingredients have contributed to a product's overall characteristics and its ability to meet a specific need; identify physical, nutritional and sensory characteristics in existing products in order to develop design criteria and generate their own ideas;	• draw up a product specification • Design ideas • Lists of ingredients • Methods written on your planning sheets • Research section • Client opinions
12th March	**Product prototype development**	identify ways in which a product could be developed; carry out modification and reformulation by changing the type, ratio and proportions of ingredients to meet nutritional/sensory aspects of the specification; work with small quantities to identify the impact of the functions of ingredients on an outcome; use investigations and testing to trial different shapes, sizes, finishes to achieve a high quality outcome which meets the specification; consider different storage methods (chilling, freezing, re-heating) wherever appropriate to identify the impact on the sensory, structural and aesthetic properties of an outcome; demonstrate how availability of ingredients, equipment and processes can alter or determine an end product; use a range of sensory testing methods to carry out rigorous sensory analysis at each stage of development (product profile tests, ranking and rating tests, difference tests).	Food Preparation and nutrition • Page 226 food labelling • Pages 188-92 & 196-7 Food safety principles http://explorefood.foodafactoflife.org.uk/ use practical planning sheets and work completed for your controlled assessment folder
19th March	**Labelling, packaging, product information and codes of practice**	use current labelling requirements to read, understand and use information on packaging and food labels and apply these to their own products;	Pages 220-236 Food preparation and nutrition http://explorefood.foodafactoflife.org.uk/

		understand that legislation governs the statutory and non-statutory content and layout for food labels; understand and demonstrate the requirements for conveying product information to the consumer including, where necessary, information about accompaniments; use nutritional software to analyse the nutritional content of the final prototype; understand the reasons why food may be packaged in different forms to extend shelf life;	https://www.gov.uk/food-labelling-and-packaging/overview http://tna.europarchive.org/20120419000433/http://www.food.gov.uk/multimedia/pdfs/publication/foodtrafficlight1107.pdf
26th March	**Technological Developments**	Understand the advantages and disadvantages of Genetically Modified Foods to food producers and consumers; Explore, understand and assess the impact of the use of modified starches and functional foods to food producers and consumers. Have an awareness of how new technologies are used to produce new foods and ingredients, including nano foods and be aware of consumer concerns around these developments, including the views of the European Union.	Page 284 Food preparation and nutrition page 259 GM Foods http://www.who.int/foodsafety/areas_work/food-technology/faq-genetically-modified-food/en/
2rd April **EASTER**	**Social, economic, cultural and environmental considerations**	Consider packaging materials used within food production and their impact on cost and the environment; Understand how multi-cultural factors have influenced food production; Consider the use of scarce resources, transport costs, sustainability, quality, religious and cultural preferences, genetically modified foods, organic and free range foods, Fairtrade, Farm Assured, on food production and the environment;	Pages 255-273 Food Preparation and nutrition – sustainability and the environment Pages 237-246 & 211-220 Food Preparation and nutrition - multicultural and religion effecting food choices http://www.fairtrade.org.uk/ http://www.assurance.redtractor.org.uk/

		Assess the implication of food issues in product development, e.g. food miles, availability of seasonal foods.	
9th April **<u>EASTER</u>**	Processes and manufacture **The use, need and effect of additives**	know and understand that food products are developed and made safe to eat by combining different ingredients and by using a range of different processing methods and equipment. Understand the use of natural and artificial additives in food products: Preservatives, e.g. vinegar, concentrated lemon juice, salt, sugar Colourings, e.g. caramel, tartrazine, Flavourings, e.g. herbs and spices, vanilla, monosodium glutamate, Emulsifiers, e.g. lecithin;	Pages 274-283 Food Preparation and nutrition – Processing Pages 284, 286-8 – Additives Page 288 - preservatives
16th April	**The impact and effect of using a range of different equipment to produce food items of quality and consistency**	Demonstrate safe and hygienic use of a range of hand, mechanical and electrical equipment to ensure quality, e.g. cutters for uniformity of biscuits, temperature probe, e.g. cooking of high risk foods, consistency of outcome, e.g. food processor for slicing vegetables reduce time and effort: e.g. hand blender for soup, dough hook for bread; Apply knowledge and understanding to select the most appropriate equipment and healthier cooking methods for food outcomes: e.g. steamers for vegetables, microwave for retention of vitamins; Match equipment to desired outcomes within the preparation of ingredients and the production of different mixtures such as cakes, pastries, breads, sauces, decorations, purees, etc;	Information gained from practical sessions
23rd April	**Storage of Food and Food Products**	Understand the need for different types of equipment and temperatures for the storage of food including chilling (0–5˚C), freezing (-18˚C), re-heating (72˚C) and ambient conditions (room temperature);	Food Preparation and nutrition • Page 226 food labelling • Pages 188-92 & 196-7 Food safety principles • Pages 78, 158, 160 – high risk foods • Pages 171-81 Food Preparation and nutrition – bacteria

		Explain and understand the importance of critical storage temperatures; Use and understand different ways of monitoring temperature: e.g. the purpose and use of temperature probes, thermometers; Understand the reasons for changes which occur in ingredients and foods during their preparation and storage, e.g. investigate the effects of chilling and freezing on different foods; Understand the need for and apply appropriate hygiene and safety procedures: to ensure safe food handling techniques at all stages from raw material to product/outcome; Consider food safety and hygiene when purchasing, storing, preparing, cooking and serving food: cross contamination, use by date, best before date, high risk food, cross contamination, danger zone; Understand the risks posed by physical, chemical and biological contamination, e.g. symptoms of food poisoning; Have an awareness of the reasons why food may be packaged in different forms to extend shelf life, including the use of new technologies such as nanotechnology;	• Page 174 cross contamination
30th April	**Manufacturing/Large Scale Production Requirements**	Understand different commercial methods of food production including: one off, batch, mass, continuous flow; Show an understanding of how CAD and CAM can be used within food manufacturing; Explore/examine how quality control checks are used to produce consistent food products; Examine how control checks can prevent problems in food production.	Pages 292 Food Preparation and nutrition - control

7th May	**Exam**		
14th May			