

Curriculum Knowledge Map

CHS Computing and Technology 2023/2024

GCSE Food Preparation and Nutrition

Year 10	AUTUMN		SPRING		SUMMER	
	Foundations in Food	Food, Nutrition and Health	Food Science	Food Choice	Food Safety	Food Provenance
Declarative <i>What should they know?</i>	Introduction to the main food preparation and nutrition topics Students will spend the first half term looking at and exploring the 5 main areas of the GCSE Food Preparation and Nutrition Specification to gain insight into their future studies on the course and develop their initial understanding of key concepts. Students will look at the main principles of: <ul style="list-style-type: none"> Food, nutrition and health – Macro Nutrients, Micronutrients, Nutritional Needs and Health. Food Science – Cooking of food, Heat Transfer and the Functional and Chemical Properties of Food. Food safety – Food Spoilage, Contamination and the Principles of Food Safety. Food choice – Factors affecting Food Choice, British and International Cuisines, Sensory Evaluation, Food Labelling and Marketing. Food provenance – Environmental Impact and 	Macronutrients <ul style="list-style-type: none"> Protein Fats Carbohydrates Micronutrients <ul style="list-style-type: none"> Vitamins Minerals Water Nutritional needs and health <ul style="list-style-type: none"> Making informed choices for a varied and balanced diet. Energy needs. How to carry out nutritional analysis. Diet, nutrition and health. 	Cooking of food and heat transfer <ul style="list-style-type: none"> Why food is cooked and how heat is transferred to food. Selecting appropriate cooking methods. Functional and chemical properties of food <ul style="list-style-type: none"> Proteins <ul style="list-style-type: none"> protein denaturation protein coagulation gluten formation foam formation Carbohydrates <ul style="list-style-type: none"> gelatinisation dextrinisation caramelisation Fats and oils <ul style="list-style-type: none"> shortening aeration plasticity emulsification Fruit and Vegetables <ul style="list-style-type: none"> enzymic browning. oxidation Raising agents <ul style="list-style-type: none"> chemical (baking powder, bicarbonate of soda, self-raising flours) 	Factors affecting food choice. Factors which influence food choice <ul style="list-style-type: none"> To know and understand factors which may influence food choice. Food choices <ul style="list-style-type: none"> Food choice related to religion, culture, ethical and moral beliefs and medical conditions. Food labelling and marketing influences <ul style="list-style-type: none"> How information about food available to the consumer, including labelling and marketing, influences food choice. British and international cuisines <ul style="list-style-type: none"> Food products from British tradition and two different cuisines. Cuisine is defined as: 'a style characteristic of a particular country or region where the cuisine has developed historically using distinctive ingredients, specific 	Food spoilage and contamination <ul style="list-style-type: none"> Microorganisms and enzymes <ul style="list-style-type: none"> the growth conditions for microorganisms and enzymes and the control of food spoilage bacteria, yeasts and moulds are microorganisms. high risk foods enzymes are biological catalysts usually made from protein. The signs of food spoilage <ul style="list-style-type: none"> enzymic action mould growth yeast action Microorganisms in food production <ul style="list-style-type: none"> the use of microorganisms in food production Bacterial contamination <ul style="list-style-type: none"> the different sources of bacterial contamination the main types of bacteria which cause food poisoning. the main sources and methods of control of different food 	Environmental impact and sustainability of food <ul style="list-style-type: none"> Food Sources <ul style="list-style-type: none"> where and how ingredients are grown, reared and caught. Food and the environment <ul style="list-style-type: none"> environmental issues associated with food. Sustainability of food <ul style="list-style-type: none"> the impact of food and food security on local and global markets and communities Food processing and production <ul style="list-style-type: none"> Food production <ul style="list-style-type: none"> primary and secondary stages of processing and production. how processing affects the sensory and nutritional properties of ingredients Technological developments associated with better health and food production. <ul style="list-style-type: none"> Technological developments to

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	Sustainability of Food, Food Processing and Production.		<p>which produce carbon dioxide)</p> <ul style="list-style-type: none"> mechanical (whisking, beating, folding, sieving, creaming and rubbing in – all incorporate air into the mixture) steam is produced when the water in any moist mixture reaches boiling point. biological (yeast) 	<p>preparation and cooking methods or equipment, and presentation or serving techniques.</p> <p>Sensory evaluation</p> <ul style="list-style-type: none"> sensory testing methods how taste receptors and olfactory systems work when tasting food. 	<p>poisoning bacterium types</p> <ul style="list-style-type: none"> the general symptoms of food poisoning <p>Principles of food safety</p> <ul style="list-style-type: none"> Buying and storing food The food safety principles when buying and storing food. Preparing, cooking and serving food The food safety principles when preparing, cooking and serving food 	<p>support better health and food production including fortification and modified foods with health benefits and the efficacy of these.</p>
<p>Procedural <i>What should they be able to do?</i></p>	<p>During the half term students will complete several practical lessons quiche and Spanish omelette. These are mapped to develop and extend on the learning for the topics being covered (quiche links to nutrition and health and Spanish omelette focussing on the science of cooking food and function/chemical properties of eggs.</p> <p>During these practicals there will be procedural knowledge acquired relating to the application of skills:</p> <p>Curry/Biryani</p> <ul style="list-style-type: none"> General practical skills – weigh and measure (Skill 1) Knife Skills - Bridge hold, claw grip, peel, slice, dice and cut into even size pieces (i.e. batons, julienne) (skill 2). Preparing fruits and vegetables (Skill 3) Use of the cooker (Skill 4) 	<p>During the half term students will complete several practical lessons shepherd's pie and lasagne. These are mapped to develop and extend on the learning for the topics being covered (shepherd's pie links to nutrition and health and lasagne focussing on the science of cooking food and function/chemical properties of starch, fats and proteins.</p> <p>During these practicals there will be procedural knowledge acquired relating to the application of skills:</p> <p>Shepherd's pie</p> <ul style="list-style-type: none"> General practical skills – weigh and measure (Skill 1) Preparing fruits and vegetables (Skill 3) Use of the cooker (Skill 4) Prepare, combine and shape (Skill 7) <p>Ravioli</p> <ul style="list-style-type: none"> General practical skills – weigh and measure (Skill 1) 	<p>During the half term students will complete several practical lessons Profiteroles. These are mapped to develop and extend on the learning for the topics being covered.</p> <p>During these practicals there will be procedural knowledge acquired relating to the application of skills:</p> <p>Chelsea buns</p> <ul style="list-style-type: none"> Students should know how to weigh and measure ingredients (Skill 1). Students should understand how to make a dough (Bread) (Skill 10). Students should understand how to use the Hob/Oven when cooking dishes (Skill 4). Students should know how to shape and form ingredients (dough) for uniformity (Skill 4). 	<p>During the half term students will complete several practical lessons Chow Mein These are mapped to develop and extend on the learning for the topics being covered</p> <p>During these practicals there will be procedural knowledge acquired relating to the application of skills:</p> <p>Sensory Analysis (breads)</p> <ul style="list-style-type: none"> Be able to analyse flavour profiles. Be able to describe the impact of taste, texture, touch, smell on sensory appeal. Be able to explain the impact of ingredients upon the sensory appeal of products. How to taste and season during the cooking process. Change the taste and aroma through the use of infusions, 	<p>During the half term students will complete several practical lessons fruit flan and Chelsea buns. These are mapped to develop and extend on the learning for the topics being covered.</p> <p>During these practicals there will be procedural knowledge acquired relating to the application of skills:</p> <p>Cheesecake</p> <ul style="list-style-type: none"> General practical skills – weigh and measure (Skill 1) Preparing fruits and vegetables (Skill 3) Use of the cooker (Skill 4) Prepare, combine and shape (Skill 7) Students should understand how to use the Hob/Oven when cooking dishes – sauce making (Skill 8). 	<p>During the half term students will complete several practical lessons Cheesecake and Ravioli. These are mapped to develop and extend on the learning for the topics being covered.</p> <p>During these practicals there will be procedural knowledge acquired relating to the application of skills:</p> <p>Lemon Meringue Pie</p> <ul style="list-style-type: none"> General practical skills – weigh and measure (Skill 1) Preparing fruits and vegetables (Skill 3) Use of the cooker (Skill 4) Prepare, combine and shape (Skill 7) Students should understand how to use the Hob/Oven when cooking dishes – sauce making (Skill 8). Making a dough (Skill 10) Setting Mixtures (Skill 12).

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	<ul style="list-style-type: none"> Students should understand how to use the Hob/Oven when cooking dishes – sauce making (Skill 8). <p>Pie (Homity/Pfeither) (Shortcrust Pastry)</p> <ul style="list-style-type: none"> General practical skills – weigh and measure (Skill 1) Preparing fruits and vegetables (Skill 3) Use of the cooker (Skill 4) Prepare, combine and shape (Skill 7) Sauce making (Skill 8) Making a dough (Skill 10) <p>Quiche</p> <ul style="list-style-type: none"> General practical skills – weigh and measure (Skill 1) Preparing fruits and vegetables (Skill 3) Use of the cooker (Skill 4) Prepare, combine and shape (Skill 7) Sauce making (Skill 8) Making a dough (Skill 10) 	<ul style="list-style-type: none"> Use of the cooker (Skill 4) Use of equipment (pasta making machine (Skills 5) Prepare, combine and shape (Skill 7) Sauce making (Skill 8) – reduction. Making a dough (Skill 10) <p>Lasagne</p> <ul style="list-style-type: none"> General practical skills – weigh and measure (Skill 1) Preparing fruits and vegetables (Skill 3) Use of the cooker (Skill 4) Cooking methods (skill 6) Sauce making (Skill 8) 	<p>Profiteroles</p> <ul style="list-style-type: none"> General practical skills – weigh and measure (Skill 1) Use of the cooker (Skill 4) Prepare, combine and shape (Skill 7) Making a dough (choux) (Skill 10) Raising agents (Skill 11) <p>Spanish omelette</p> <ul style="list-style-type: none"> General practical skills – weigh and measure (Skill 1) Preparing fruits and vegetables (Skill 3) Use of the cooker (Skill 4) Cooking methods (skill 6) 	<p>herbs and spices, paste, jus, reduction.</p> <ul style="list-style-type: none"> How to change texture and flavour, use browning (dextrinisation, caramelisation) and glazing, add crust, crisp and crumbs. Presentation and food styling. Use garnishes and decorative techniques to improve the aesthetic qualities, demonstrate portioning, presenting, and finishing. 		<p>Additional Practical – Student choice.</p> <ul style="list-style-type: none"> Range of skills to be applied based on the context delivered by teachers. Students to map their skills for practical's this year and as part of this lesson.
Disciplinary Literacy (Tier 3 Vocab)	<p>Tier 3 Disciplinary literacy linked to the unit of study:</p> <ul style="list-style-type: none"> Nutrition Biological value Function Diet Starch Vitamins & Minerals Deficiencies Excess Pastry Shortening Forming Dough Moral & Ethical Medical reasoning 	<p>Tier 3 Disciplinary literacy linked to the unit of study:</p> <ul style="list-style-type: none"> Basal Metabolic Rate (BMR) Physical Activity Level (PAL) Estimated Average Requirement (EARs) Energy Density Amino Acids High Biological Value (HBV) Low Biological Value (LBV) Protein Complementation Kwashiorkor Fatty Acids Glycerol Saturated Fats Unsaturated Fats 	<p>Tier 3 Disciplinary literacy linked to the unit of study:</p> <ul style="list-style-type: none"> Shortening Plasticity Aeration Creaming Foam Denaturation Ph level Marinade Enzymic Browning Oxidation Physical raising agents Chemical raising agents Yeast Bicarbonate of soda 	<p>Tier 3 Disciplinary literacy linked to the unit of study:</p> <ul style="list-style-type: none"> Vegetarian Ovo-lacto vegetarian Vegan Lactovegetarian Diabetes Coeliac Gluten Lactose intolerance Anaphylaxis Epi pen Olfactory Sensory analysis Palate Sensory characteristics 	<p>Tier 3 Disciplinary literacy linked to the unit of study:</p> <ul style="list-style-type: none"> Use by date. Best before date Frozen Food Chilled Food High risk foods Low risk foods Danger zone Hygiene Microorganisms, Bacteria, Pathogens, Enzymes Enzymic browning. Contamination Risks Perishable, Storage 	<p>Tier 3 Disciplinary literacy linked to the unit of study:</p> <ul style="list-style-type: none"> Transportation Barn reared animals Organic Genetically Modified (GM) Free range Hydroponics Fish Farms Intensive farming Greenhouse gases (GHG's) Crop rotation Fairtrade Homogenised

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	<ul style="list-style-type: none"> • Intolerance • Environmental impact • Sustainability • Production, Primary, Secondary, Processing • Free range, Intensive, Organic • Convection & Conduction • Radiation, Transfer • Chemical properties • Raising agent, Mechanical, Chemical, Biological • Heat transfer • Coagulation 	<ul style="list-style-type: none"> • Fat Soluble vitamins • Water Soluble Vitamins • Cholesterol • Hydrogenation • Trans fats • Dietary Fibre • Constipation • Diverticular Disease 	<ul style="list-style-type: none"> • Baking Powder • Fermentation • Carbon Dioxide • Palatability • Microwave • Radiation • Conduction • Convection 	<ul style="list-style-type: none"> • Rating Tests • Ranking tests • Star profile • Triangle testing • Paired preference tests 		<ul style="list-style-type: none"> • Primary and • Secondary processing • Pasteurised, Skimmed, Semi skimmed, Ultra heat treated, (UHT), Sterilised, Evaporated • Food Miles • Food Origin • Climate Change • Carbon Footprint • Recycling • Packaging • Landfill, Food Waste • Composting • Red Tractor • Climate change • Sustainability of food • Deforestation
Assessment	<p>Key assessment task: Time plan - marked and fed back as part of a Key Assessed piece of work.</p> <p>Key assessment task: Topic Test - marked and fed back as part of a Key Assessed piece of work.</p> <p>Single Lesson exam technique and practice assessment lessons:</p> <ul style="list-style-type: none"> • Nutrition and Health • Food Safety • Nutrition and Provenance • Faults in food Preparation • Food Science - Carbohydrates: Gelatinisation, Dextrinisation & Caramelisation <p>Home learning activity: Food choice:</p> <ul style="list-style-type: none"> • Discuss a range of religious and cultural needs that 	<p>Key assessment: Exam practice and technique. Assessment will be based upon exam style questioning of the topics being covered this half term (Food Nutrition and Health), using exam practice from past paper questions in short, medium and high-level responses to ensure breadth of assessment practice.</p> <p>Single Lesson exam technique and practice assessment lessons:</p> <ul style="list-style-type: none"> • Vitamins • Minerals • Energy Needs <p>Home learning activity: Food choice:</p> <ul style="list-style-type: none"> • Discuss a range of religious and cultural needs that manufacturers must consider when designing new food products. Include examples of different 	<p>Key assessment: Food safety principles – students will be assessed on key areas of food safety and control measures to prevent food contamination and food poisoning. This links to learning surrounding common bacteria and storage requirements.</p> <p>Key assessment task: Progress Test - marked and fed back as part of a Key Assessed piece of work. Feedback should use a two star and wish model.</p> <p>Single Lesson exam technique and practice assessment lessons:</p> <ul style="list-style-type: none"> • Heat Transfer • Selecting appropriate cooking methods 	<p>Key assessment: Practical assessment & Time plan assessment. During the practical lesson this half term students will be assessed on their ability to complete a thorough time plan and complete practical skills associated with the Chow Mein practical. This will form an assessment piece (commonly assessed in exam papers).</p> <p>Key assessment: Exam practice and technique. Assessment will be based upon exam style questioning of the topics being covered this half term (Food choice), using exam practice from past paper questions in short, medium and high-level responses to ensure breadth of assessment practice.</p> <p>Single Lesson exam technique and practice assessment lessons:</p>	<p>Key assessment: Faults in pastry making. As students look at and complete their ravioli practical, they should understand how common faults can be found in pastry making and this will form an assessment piece (commonly assessed in exam papers).</p> <p>Key assessment: Exam practice and technique. Assessment will be based upon exam style questioning of the topics being covered this half term (Food provenance), using exam practice from past paper questions in short, medium and high-level responses to ensure breadth of assessment practice.</p> <p>Single Lesson exam technique and practice assessment lessons:</p> <ul style="list-style-type: none"> • Food Spoilage (buying and storing) • Bacterial Contamination 	<p>Key assessment task: Progress Test - marked and fed back as part of a Key Assessed piece of work. Feedback should use a two star and wish model.</p> <p><i>Assessment will be based on the 5 area of food based on learning that has taken place throughout year 10 and based on the knowledge and understanding of assessment practice completed in single lessons.</i></p> <p>Set as a full exam paper out of 100 marks, including multiple choice, short, medium and longer response questions.</p> <p>Single Lesson exam technique and practice assessment lessons:</p> <ul style="list-style-type: none"> • Genetically Modified (GM) Foods • Converting Recipes into time plans

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	<p>manufacturers must consider when designing new food products. Include examples of different multicultural foods in your answer.</p> <ul style="list-style-type: none"> Describe the distinctive features and characteristics of 1 international cuisine of your choice. <p>Home learning activity: Students to complete research and investigation into food choice topics to support learning in the following lesson. Food Provenance:</p> <ul style="list-style-type: none"> Explain how milk is made into cheese. Explain how flour is made into bread. <p>Home learning activity: Food Science:</p> <ul style="list-style-type: none"> Discuss the advantages and disadvantages of grilling, frying and roasting meat as methods of cooking. Explain with examples why gluten is important in bread making. 	<p>multicultural foods in your answer.</p> <ul style="list-style-type: none"> Describe the distinctive features and characteristics of 1 international cuisine of your choice. <p>Home learning activity: Students to complete research and investigation into food choice topics to support learning in the following lesson. Food Provenance:</p> <ul style="list-style-type: none"> Explain how milk is made into cheese. Explain how flour is made into bread. <p>Home learning activity: Food Science:</p> <ul style="list-style-type: none"> Discuss the advantages and disadvantages of grilling, frying and roasting meat as methods of cooking. <p>Explain with examples why gluten is important in bread making.</p>		<ul style="list-style-type: none"> Factors affecting food choice. End of Topic Assessment 	<ul style="list-style-type: none"> End of Topic Assessment 	
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