KS4 Curriculum Map – Food Preparation and Nutrition:

Topic	Substantive Knowledge This is the specific, factual content for the topic, which should be connected into a careful sequence of learning.	Disciplinary Knowledge (Skills) This is the action taken within a particular topic in order to gain substantive knowledge.	Assessment Opportunities What assessments will be used to measure student progress?
The relationship between diet and health	• A balanced diet. • The government's guidelines for a healthy diet. • Major diet-related health issues.	• Develop understanding through theory and practical work the following: • The importance of having a healthy diet. • How to use the major commodity groups to make a balanced food choice. • The application of the eight tips for healthy eating. • Diet-related diseases and conditions: obesity (weight loss and gain), cardiovascular, coronary heart disease (CHD), diabetes, diverticulitis, bone health (osteoporosis), dental health, anaemia and high blood pressure.	• Testing pupil's knowledge through questioning. • Key words. • Practical lessons. • Evaluation of lessons. • Peer Assessment activities. • Mini tests.
Nutritional and dietary needs of different groups of people	• Dietary needs for different stages of life. • Food allergies and intolerances. • The dietary reference values (DRVs).	• Develop understanding through theory and practical work the following: • Balanced combinations of food, nutrients and correct portion sizes for babies, toddlers, pre-school children, school-aged children, adolescents, adults, older people, pregnant and lactating women. • Foods that may cause an allergic reaction. • Food intolerance: lactose and gluten (coeliacs). • Recommended daily amounts of macro and micronutrients and energy.	• Mini tests taken from textbook. • Practical. • Evaluation. • Peer Assessment. • Verbal feedback. • Written feedback. • Independent learning. • Group work (teams).

		• Plan recipes, meals and diets based on nutritional analysis.	
Nutritional needs when selecting recipes for different groups of people	• Modifying recipes and meals.	• Develop understanding through theory and practical work the following: • Altering or substituting ingredients, changing the method of cooking or process and changing the portion size.	• Practical lessons. • Evaluation of Practical. • Self-Assessment. • Peer- Assessment.
Energy balance	• The relationship between food intake and physical activity. • Energy values. • Energy requirements.	• Develop understanding through theory and practical work the following: • Basal metabolic rate (BMR) and physical activity level (PAL) and their importance in determining energy requirements. • Recommended percentage of daily energy intake. • Sources of energy: protein, fat, carbohydrate and alcohol. • Units (kcal and kJ) for measuring energy • Gender, life stage, pregnancy/lactation, size/body weight, genetics, occupation and lifestyle. • Deficiency and excess.	• Textbook activity. • PowerPoint. • Experimental tasks. • Investigation work. • Practical.
Protein (Macronutrient)	• Types and functions. • Sources.	• Develop understanding through theory and practical work the following: • Types and structure: High biological value (HBV) and low biological value (LBV). • Functions and deficiency. • Animal and vegetable.	• Testing. • Theory work. • Research and Investigation.

Fat (Macronutrient)	• Types and functions.	• Develop understanding through theory and practical work the following: • Types and structure: fats and oils (saturated, unsaturated and polyunsaturated) • Functions and deficiency.	• Testing. • Theory. • Research tasks.
Carbohydrate (Macronutrient)	• Sugar. • Functions and deficiency.	• Develop understanding through theory and practical work the following: • monosaccharides, disaccharides, starch: complex carbohydrates and fibre. • Sugar, starch and fibre.	• Practical. • Theory. • Evaluation. • Reflection. • Questioning throughout.
Vitamins (Micronutrients)	• Vitamins.	• Develop understanding through theory and practical work the following: • Fat soluble vitamins: A (retinol and carotene), D, E, K. • Water soluble vitamins: B1 (thiamine), B2 (riboflavin), B3 (niacin), B9 (Folate/Folic acid), B12 (cobalamin), C (ascorbic acid). • Functions and deficiency.	• Practical. • Theory. • Written response. • Experimentation. • Evaluation.
Minerals (Micronutrients)	• Calcium, iron, sodium, fluoride, iodine, phosphorus.	• Develop understanding through theory and practical work the following: • Functions and deficiency.	• Theory. • Practical. • Testing. • Investigation.
Water	• Importance of water.	• Develop understanding through theory and practical work the following: • Functions and deficiency. • Recommended guidelines for daily intake of water.	• Investigation. • Experiment. • Evaluation.

Nutritional content of the main commodity groups	• Bread, rice, potatoes, pasta and other starchy foods. • Fruit and vegetables. • Milk and dairy foods. • Meat, fish, eggs, beans and other non-dairy • sources of protein. • Foods and drinks high in fat and/or sugar.	• Develop understanding through theory and practical work the following: • Nutritional content of each commodity group.	• Group activity. • Practical. • Evaluation.
FOOD PROVENANCE: Food source and supply	• Grown: cereals, sugars, fruits and vegetables. • Reared: meat and poultry. • Caught: fish.	• Develop understanding through theory and practical work the following: • Advantages and disadvantages of locally produced and seasonal foods. • Where and how they are grown: organic and non-organic farming. • Classification of fruits and vegetables. • Where and how they are reared: intensive farming methods, free-range. • products, rearing of the animals. • Classification of meat, poultry and game.	• Testing. • Practical. • Demonstration. • Textbook. • Evaluation. • Theory work. • Reflection.
Food processing and production	• Primary stages of food processing. • Secondary stages of food processing. • Food processing and preserving.	• Develop understanding through theory and practical work the following: • How wheat is milled and processed to produce flour. • Heat treatment of milk. • The processes that raw food undergoes to transform it into a food product. • How milk is processed to produce butter, cream, yoghurt and cheese. • How flour is used to produce bread and pasta • High temperatures: pasteurisation, sterilisation (ultra heat treated (UHT) and canning) • Cold temperatures: chilling, freezing, cook-freeze/blast chilling and accelerated • freeze-drying (AFD). • Drying and smoking.	• Investigation work. • Independent learning. • Experiment. • Practical. • Evaluation. • Peer Assessment.

		• Using acids, salt and sugar. • Controlled atmosphere packaging (CAP)/modified atmosphere packaging (MAP). • Vacuum packing.	
Food security	• food security on society, local and global markets and the environment.	• Develop understanding through theory and practical work the following: • The availability of food, the access to food, the individual's ability to utilise food. • Moral issues: how Fairtrade affects food producers and workers. • Ethical issues: relating to the development of genetically modified (GM) food. • Environmental issues: food waste. • Carbon footprint and the transportation of materials and goods. • Sustainability of resources.	• Theory work. • Testing. • Evaluation.
Technological developments to support better health and food production	• Fortification. • Use of additives. • New and emerging foods.	• Develop understanding through theory and practical work the following: • The advantages and disadvantages of fortification. • Preservatives, colourings, flavourings and sweeteners, emulsifiers and stabilisers and thickeners, antioxidants. • Probiotics and prebiotics.	• Research tasks. • Teamwork and collaboration. • Theory work. • Testing.
Development of culinary traditions (learners must study British cuisine and a minimum of TWO international cuisines)	• Features and characteristics of individual cuisines.	• Develop understanding through theory and practical work the following: • Recognise traditional ingredients. • Understand religious or cultural factors affecting the cuisine. • Understand traditional cooking methods, presentation and eating patterns. • Recognise how the traditional recipes have been adapted to suit today's society.	• Analysis of practical. • Evaluation. • Theory.

Factors influencing food choice	• Personal, social and economic factors, medical reasons. • Organic foods. • Ethical and moral beliefs.	• Develop understanding through theory and practical work the following: • Food choice can be affected by cost, enjoyment, preference, seasonality, availability, time of day, activity, celebration or occasion. • Consumer information, food labelling, marketing • Vegetarians (lacto-ovo, lacto, ovo and vegans), animal welfare, local produce, organic food.	• Theory. • Testing. • Questioning.
Food Science	• Why food is cooked. • How preparation and cooking methods/processing affect the nutritional value. • improve the sensory properties.	• Develop understanding through theory and practical work the following: • Making food safe to eat. • Making food more digestible/palatable. • Enrichment/loss, increase/reduce calorific value, vitamin losses. • Texture, flavour, appearance, aroma.	• Practical. • Theory. • Evaluation.
Sensory properties	• The senses.	• Develop understanding through theory and practical work the following: • Changes that happen when food is cooked: texture, appearance, colour, taste, sound and aroma. • The importance of the senses of sight, taste, touch, smell and hearing and how they work when making food choices. • The five basic tastes recognised by receptors (sweetness, sourness, bitterness, saltiness and umami).	• Experimentation. • Practical. • Theory. • Evaluation. • Collaboration.
Food safety	• Bacterial Growth. • Mould growth and yeast production. • Preparing & storing food.	• Develop understanding through theory and practical work the following: • The role of time, temperature, moisture and food availability. • The role of time, temperature, moisture and food availability. • Types of micro-organisms and key points • High-risk foods, critical temperatures.	• Theory. • Testing. • Questioning. • Researching.

Knife skills	• Knife skills.	• Develop understanding through theory and practical work the following: • Fruits and vegetables: bridge hold, claw grip, peel, slice, dice and cut into evenly sized pieces (i.e. batons, julienne). • Meat, fish or alternatives: fillet a chicken breast, portion a chicken, remove fat and rinds, fillet fish, slice raw and cooked meat and fish or alternatives (such as tofu and halloumi) evenly and accurately.	• Practical. • Demonstration. • CPD – JB.
Preparation and techniques	• Tenderise and marinate. • Flavour. • Handling high-risk foods correctly.	• Develop understanding through theory and practical work the following: • Fruits and vegetables: mash, shred, scissor-snip, scoop, crush, grate, peel, segment, de-skin, deseed, blanch, shape, pipe. • blend, juice and prepare garnishes whilst demonstrating the technical skills of controlling enzymic browning and spoilage. • Preventing food poisoning (wash and dry, where appropriate).	• Theory. • Testing. • Questioning. • Researching. • Practical. • Demonstration.
Cooking methods	• Water-based methods.	• Develop understanding through theory and practical work the following: • Using the hob: steaming, boiling and simmering, blanching and poaching. • Dry heat and fat based methods using the hob: dry-frying, pan (shallow frying), stir-frying. • Using the grill: char, grill or toast. • Using the oven: baking, roasting, casseroles and/or tagines, braising.	• Theory. • Testing. • Questioning. • Researching. • Practical demonstration.
MOCK EXAM 1	• Exam opportunity (Support TAG process)	• Focused revision session. Provide learners with focused and supported revision that allows them to review their collated and developed revision materials, and to use these to prepare for a practice test.	• Complete mock examination paper. • Analysis of results. • 1to1 as required.

Food Safety	• Micro-organisms. • Making yogurt and cheese.	• Develop understanding through theory and practical work the following: • Conditions and control for bacterial growth: The role of time, temperature, moisture and food availability. • Growth conditions and control for mould growth and yeast production: The role of time, temperature, moisture and food availability. • Signs of food spoilage: Natural decay, enzyme action and yeast production. • Helpful properties of microorganisms in food production: Types of micro-organisms and key points. • Use of preserved foods in recipes, e.g. millionaire's shortbread, chilli con carne, tofu and coconut milk curry, vegetable samosas, baklava	• Theory. • Testing. • Questioning. • Researching. • Practical demonstration.
Food Safety	• Bacterial growth.	• Develop understanding through theory and practical work the following: • Buying food: Labelling and date marks. • Visual checks. • Reputable supplier. • Storing food. • Types of storage and how to store foods correctly Cooking and serving food. • High-risk foods, critical temperatures.	• Making ice cream/ semi – freddo, sorbet, kulf.
Food security	• The availability of food. • Fairtrade. • (GM) food.	• Develop understanding through theory and practical work the following: • Features and characteristics of individual cuisines Recognise traditional ingredients: Chosen Culture 2 Understand religious or cultural factors affecting the cuisine. • Understand traditional cooking methods, presentation and eating patterns. • Recognise how the traditional recipes have been adapted to suit today's society.	• Chocolate or coffee dish Brownies, tiramisu.

Food security	• Food waste • Carbon footprint. • Sustainability.	• Develop understanding through theory and practical work the following: • Features and characteristics of individual cuisines Recognise traditional ingredients: Chosen Culture 2 Understand religious or cultural factors affecting the cuisine • Understand traditional cooking methods, presentation and eating patterns • Recognise how the traditional recipes have been adapted to suit today's society • Environment – food storage. • Food transport and waste. • Food poverty – UK and worldwide examples.	• Dish using leftover food – re-chauffe cookery, bread, tomatoes or meat.
Scientific investigations	• Introduction /Plan (9 marks) Research.	• What is the task and how am I planning to complete this?	• Work on NEA. • All work submitted on TEAMS. • Deadlines set for each section. • Feedback is generic to meet OFQUAL regulations.
Scientific investigations	• Learners will show: aim for the investigation.	• choice of investigations with detailed explanations linking to the functional and chemical properties of the ingredients.	• Work on NEA. • All work submitted on TEAMS. • Deadlines set for each section. • Feedback is generic to meet OFQUAL regulations.
Scientific investigations	• Investigation (21 marks).	• Scientific investigation into all of the functional and chemical properties of a commodity/ ingredients for the task.	• Work on NEA. • All work submitted on TEAMS. • Deadlines set for each section. • Feedback is generic to meet OFQUAL regulations.

Scientific investigations	• Investigation.	• Completion of task.	• Work on NEA. • All work submitted on TEAMS. • Deadlines set for each section. • Feedback is generic to meet OFQUAL regulations.
Scientific investigations	• How did I complete the task?	• Students will show: the method used for each investigation. • the changes and adaptations made. • logical sequence of working . • completed records of observations and findings (this may include charts, graphs, photos and written descriptions).	• Work on NEA. • All work submitted on TEAMS. • Deadlines set for each section. • Feedback is generic to meet OFQUAL regulations.
Scientific investigations	• Produce a comprehensive analysis with a wide range of opinions and viewpoints.	• Completion of task.	• Work on NEA. • All work submitted on TEAMS. • Deadlines set for each section. • Feedback is generic to meet OFQUAL regulations.
Task 2 based on theme from 1st November	• NEA ‘6 week’ BLOCK.	• W1 - Evaluation of observations and findings. • W2 - Task 2 Preparation. • W3 - Plan: Reasons for selection choice of dishes relating to the task. • W4 - Identification of skills and techniques. • W5 - Sensory/nutritional choice Costs. • W6 - Food provenance and seasonality.	• Work on NEA. • All work submitted on TEAMS. • Deadlines set for each section. • Feedback is generic to meet OFQUAL regulations.
Task 2 based on theme from 1st November	• NEA ‘6 week’ BLOCK.	• W1 - Time plan. • W2 - Time plan. • W3 - Practice skills Theory input. • W4 - Practice skills Theory input. • W5 - Practice skills Theory input. • W6 - Practice skills Theory input.	• Work on NEA. • All work submitted on TEAMS. • Deadlines set for each section. • Feedback is generic to meet OFQUAL regulations.

Task 2 based on theme from 1st November	• NEA '6 week' BLOCK.	• W7 - Practice skills Theory input: Presentation and portion control. • W8 - Practice skills Theory input: Presentation and portion controW3 - Plan: Reasons for selection choice of dishes relating to the task. • W9 & 10 - Prepare, cook and present 3 dishes based on theme. Excellent and advanced application of a wide variety of skills, techniques and cooking methods, showing a high and very complex level of demand Excellent level of competency when using a wide range of tools and equipment Demonstrates excellent cooker management. • W11 - Analysis and evaluation: evidence of sensory testing. • W12- Justification of choice Improvements/modifications.	• Work on NEA. • All work submitted on TEAMS. • Deadlines set for each section. • Feedback is generic to meet OFQUAL regulations.
Examination preparation	• Section A responses. • Section B responses.	• How to answer questions in depth. • Using the MARK scheme for past papers.	• Mock paper. • Example answers. • Previous test papers.