

GCSE (9–1)

Teacher Guide

FOOD PREPARATION AND NUTRITION

J309

For first teaching in 2016

Scheme of Work – Year 10 and 11

Version 2



Term 1

	Commodity group: Fruit and vegetables				
	Week 1: Section C Food Safety	Week 2: Section A Health	Week 3: Section A Nutrients	Week 4: Section A Nutrients	Week 5 and 6: Section B Provenance
(Total 5 hours Over 2 weeks) Theory 2 hours	Preparing food and Safety ✓ Preventing cross contamination and food poisoning: direct and indirect methods ✓ The importance of a healthy diet: Fruit and veg ✓ How to use the major commodity groups to make a balanced food choice. Eatwell guide ✓ The application of the eight tips for healthy eating Diet-related diseases and conditions: diverticulitis, high blood pressure (salt), anaemia		✓ Types and Functions and Sources –Vitamins, fibre ✓ Recommended daily amounts of micro nutrients (DRV's): vitamins ✓ Functions and deficiency ✓ 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) ✓ Importance of water ✓ Water: Functions and deficiency ✓ Recommended guidelines for daily intake of water. ✓ Sources and foods that give us water		✓ Food sources and how they are grown: fruits and vegetables ✓ Advantages and disadvantages of locally produced and seasonal foods ✓ Where they are grown: organic and non-organic farming ✓ Classification of fruits and vegetables
Science 1 hour	Enzymic browning- what happens and why? Oxidisation		Reducing oxidation Testing for vitamin C Fibre content using a nutritional analysis programme		Nutritional analysis programme
Recipes 2 hours	(L) Vegetable fajita (M) Vegetable fajita, guacamole and salsa (H) Vegetable fajita, guacamole, salsa and homemade tortilla or (High , if tortillas and salsa/ guacamole are made) Vegetable Spring rolls, using julienne cut and oriental salad	(L) Vegetable soup, pureed or chunky with macedoine cut (minestrone soup) (M) Vegetable soup with garnishes. Accompaniments (H) Vegetable soup with garnishes and accompaniment (bread) or French apple flan (Medium to High if pastry is made)	Tray bakes using seasonal fruit Or roasted vegetable tarts Apple cake/ carrot cake - creaming method or Vegetable tart – shortcrust pastry Apple and blackberry pie	Vegetable/ fruit strudel with coulis or Vegetable spring rolls crunchy oriental salad	Tomato sauce dish: Meat balls and tomato sauce Aubergine parmigiana Gnocchi with tomato sauce (M) Lemon layer pudding

Half Term

	Stand-alone topics		Potatoes, bread, rice, pasta and other starchy carbohydrates			
	Week 1: Section B Food choice	Week 2: Section B Food choice	Week 1 and Week 2: Section A Health and Nutrients		Week 3: Section A Nutrients	Week 4: Section B Provenance
Theory 2 hours	<ul style="list-style-type: none"> ✓ Dietary needs for different stages of life ✓ Food choice can be affected by cost, enjoyment, preference, seasonality, availability, time of day, activity, celebration or occasion, medical reasons ✓ Consumer information, food labelling, marketing ✓ Ethical and moral beliefs: Vegetarians (lacto-ovo, lacto, ovo and vegans), animal welfare, local produce, organic food 	<ul style="list-style-type: none"> ✓ Related beliefs of major religions: Buddhism, Hinduism, Islam, Judaism, Rastafarianism and Sikhism Features and characteristics of individual cuisines ✓ Recognise traditional ingredients: UK ✓ 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 	<ul style="list-style-type: none"> ✓ The importance of a healthy diet: starchy foods ✓ Diet-related diseases and conditions: obesity (weight loss and gain) ✓ Recommended daily amounts of macro nutrients (DRV's): carbohydrates ✓ Sources of energy: carbohydrate ✓ Food allergies and intolerances: gluten (coeliacs) 	<ul style="list-style-type: none"> ✓ Units (kcal and kJ) for measuring energy ✓ The main factors that influence an individual's energy requirements Gender, life stage, pregnancy/lactation size/ body weight, genetics, occupation and lifestyle ✓ Excess 	<ul style="list-style-type: none"> ✓ Types and functions: starch ✓ Complex carbohydrates ✓ Sources: starch ✓ Food sources and how they are grown: cereals ✓ Advantages and disadvantages of locally produced and seasonal foods 	<ul style="list-style-type: none"> ✓ Primary process: How wheat is milled and processed to produce flour ✓ Secondary process: How flour is used to produce bread and pasta
Science 1 hour	Acids and alkalis, Using an alkali as a raising agent		Raising agents: yeast		Caramelisation	
Recipes 2 hours	Ploughmans lunch: soda bread, pickles or Scones and jam	Traditional recipe Bakewell tart (use jam from previous lesson) Steamed puddings and custard	Bread or shaped bread rolls Olive or tomato focaccia	Potato dishes- Group work: Mashed, rosti, dauphinois, wedges, lyonnaise. Design a main meal using a potato dish	Fish cakes (smoked haddock and salmon) Cottage pie	Hot dogs with caramelised onions Goats cheese tart with caramelised onions

Term 2

	Dairy and alternatives					
	Week 1: Section C Health	Week 2: Section A Health	Week 3: Section A Nutrients	Week 4: Section A	Week 5: Section B Provenance	Week 6: Section B Provenance
Theory 2 hours	✓ The importance of a healthy diet: milk and dairy foods, fat ✓ Diet-related diseases and conditions: obesity, cardiovascular, coronary heart disease (CHD), dental health, bone health (osteoporosis), high blood pressure ✓ Plan recipes, meals and diets based on nutritional analysis ✓ Altering or substituting ingredients, changing the method of cooking or process and changing the portion size	✓ 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: fat ✓ Types and structure: fats and oils (saturated, unsaturated and polyunsaturated) ✓ Fat sources: Animal and vegetable: visible and invisible	✓ Advantages and disadvantages of locally produced food ✓ Primary process: 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			
Science 1 hour	Shortening Aeration		Plasticity		Emulsification	
Recipes 2 hours	Shortcrust pastry Cornish pasties Quiche lorraine	Afternoon tea Gateaux Piped Viennese fingers	Flaky pastry Parma ham palmiers Apple galettes or tarte tatin Cinnamon and Danish pinwheels Sausage rolls	Cheese soufflé Spinach and ricotta ravioli	Eggs benedict Salmon fish cakes with hollandaise sauce	Mayonnaise Salad Lyonnaise (poached egg and bacon with a dressing)

Half Term

	Stand-alone topics					
	Week 1: Section C Sensory properties	Week 2: The senses (organoleptic properties)	Week 3: Features and characteristics of individual cuisines	Week 4: Section C The reasons why food is cooked	Week 5 and Week 6: Food processing and preserving methods: industrial and domestic	
Theory 2 hours	<ul style="list-style-type: none"> ✓ 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) 	<ul style="list-style-type: none"> ✓ How to set up a testing panel ✓ Styles and forms of rating, ranking and profiling systems with the use of appropriate descriptive terminology 	<ul style="list-style-type: none"> ✓ Recognise traditional ingredients: Chosen Culture 1 ✓ 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 	<ul style="list-style-type: none"> ✓ Making food safe to eat ✓ Making food more digestible/palatable ✓ Heat transfer through cooking methods ✓ Conduction, convection and radiatio How preparation and cooking methods/processing - affect the nutritional value - improve the sensory properties ✓ Enrichment/loss, increase/reduce calorific value, vitamin losses ✓ Texture, flavour, appearance, aroma 	<ul style="list-style-type: none"> ✓ High temperatures: pasteurisation, sterilisation (ultra heat treated (UHT) and canning) ✓ Cold temperatures: chilling, freezing, cook-freeze/blast chilling and accelerated freeze-drying (AFD) ✓ Using acids, salt and sugar 	<ul style="list-style-type: none"> ✓ Drying and smoking ✓ Controlled atmosphere packaging (CAP)/modified atmosphere packaging (MAP) and vacuum packing and vacuum packing
Science 1 hour	Raising agents: chemical agents	Raising agents: air Foam formation	Raising agents: steam	Gelatinisation	Dextrinisation	
Recipes 2 hours	Batters: blueberry muffins with crumble topping, Lemon and raisin drop scones or Gingerbread cake	Spinach roulade Swiss roll Lemon meringue pie	Choux pastry: profiteroles or mushroom gougeres/toad in the hole	Sauces Cauliflower cheese blended sauce – custard Reduction sauce steamed dishes	Chicken goujons, chicken kiev Scotch eggs, fish cakes (served with flavoured mayonnaise)	

Term 3

	Beans, pulses, fish, eggs, meat and other proteins.				Foods and drinks high in sugar
	Week 1: Section A Health	Week 2: Section A	Week 3: Section A Nutrients	Week 4 and Week 5: Section B Provenance	Week 6: Section B
Theory 2 hours	<ul style="list-style-type: none"> ✓ The importance of a healthy diet: protein ✓ Recommended daily amounts of macro nutrients(DRV) Types and structure: High biological value (HBV) and low biological value (LBV) ✓ Sources of protein: Animal and vegetable 	<ul style="list-style-type: none"> ✓ Functions and deficiency ✓ Diet-related diseases and conditions: anaemia ✓ Sources of energy: protein 	<ul style="list-style-type: none"> ✓ Food sources of vitamins ✓ 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 ✓ Foods that supply minerals ✓ Minerals: fluoride, calcium, iron, iodine, phosphorus, sodium 	<ul style="list-style-type: none"> ✓ Advantages and disadvantages of locally produced and seasonal foods ✓ Classification of meat, poultry and game ✓ Where and how they are reared: intensive farming methods, free-range products, rearing of the animals ✓ Classification of fish ✓ Where and how they are caught: sustainable fish supply 	<ul style="list-style-type: none"> ✓ Food sources and how they are grown: sugars ✓ Diet-related diseases and conditions: diabetes ✓ Sugar: monosaccharides, disaccharides, starch: complex carbohydrates and fibre Functions and deficiency
Science 1 hour	Gluten formation Yeast as a raising agent	Coagulation	Acid denature (making cheese and yogurt)	Foam formation	Modifying a recipe for health
Recipes 2 hours	Chelsea buns Starter buffet Canapés e.g palmiers or range of biscuits	Baked custard Crème brûlée Pannacotta	Lemon or fruit cheesecake Lemon posset and biscuits Chilled lemon flan	Fish pie Tempura prawns Kedgeree and parsley sauce Thai fish cakes and chilli sauce or Full English breakfast / breakfast dishes	Reduce sugar, salt, fat and increase fibre

Half Term

	Stand-alone topics					
	Week 1: Section B	Week 2 Section C Food Safety	Week 3: Section C Food Safety	Week 4: Section B Food security	Week 5: Section B Food security	Week 6: Section D Task practice
Theory 2 hours	Technological Developments: ✓ The advantages and disadvantages of fortification ✓ Preservatives, colourings, flavourings and sweeteners, emulsifiers and stabilisers and thickeners, antioxidants ✓ Probiotics and prebiotics	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 micro-organisms in food production: ✓ Types of micro-organisms and key points.	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	✓ 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	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
Science 1 hour	Preservation	Micro-organisms used in food production Making yogurt and cheese	Conditions and control of bacterial growth			
Recipes 2 hours	Use of preserved foods in recipes, e.g millionaires shortbread, chilli con carne, tofu and coconut milk curry, vegetable samosas, baklava	Making ice cream/ semi – freddo, sorbet, kulfi	Chocolate or coffee dish Brownies, tiramisu	Dish using leftover food – re-chauffe cookery, bread, tomatoes or meat	Cuisine of students choice to study	

Term 1

	Task 1 based on theme from 1st September					
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Scientific investigations	What is the task and how am I planning to complete this? Introduction /Plan (9 marks) Research	Learners will show: ✓ aim for the investigation ✓ choice of investigations with detailed explanations linking to the functional and chemical properties of a commodity/ ingredients for the task	Investigation (21 marks) Scientific investigation into all of the functional and chemical properties of a commodity/ ingredients for the task	Investigation	How did I complete the task? Learners 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).	Produce a comprehensive analysis with a wide range of opinions and viewpoints

Half Term

Task 2 based on theme from 1st November					
Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Evaluation of observations and findings	Task 2 Preparation	Plan: Reasons for selection-choice of dishes relating to the task	Identification of skills and techniques	Sensory/nutritional choice Costs	Food provenance and seasonality

Term 2

Task 2					
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Time plan	Time plan	Practice skills Theory input	Practice skills Theory input	Practice skills Theory input	Practice skills Theory input
Half Term					
Task 2					
Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Practice skills Theory input: Presentation and portion control	Practice skills Theory input: Presentation and portion control	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		Analysis and evaluation: evidence of sensory testing	Justification of choice Improvements/modifications.

Term 3

Exam Revision					
Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
Half Term					
Exam Revision					
Week 7	Week 8	Week 9	Week 10	Week 11	Week 12



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