

Scheme of Learning

The scheme of learning sets out the knowledge, understanding and skills required to cook and apply the principles of food science, nutrition and health, food safety, food choice and food provenance. Students will build upon prior learning from Key Stage 3. The specification has been mapped throughout the scheme of learning and the intention is that the specification content is not delivered in a linear fashion.

Each session comprises two/three hours or can be split into single one-hour lessons. Additional activities have been included to allow centres to select appropriate activities. Throughout the scheme of learning there are explicit links to the Illuminate Food and Preparation textbook and teaching resources. The content should be covered by all students with appropriate differentiation and challenge included. The course is designed to be easily adapted to be tailor-made to meet the individual needs of different schools, curriculum time, teachers and students. All the activities and lessons can be easily adapted to cater for different dietary needs, timings, and to reduce costs. Practical work can also be carried out in pairs and in groups to reduce costs of ingredients.

Practical skills

Practical dishes are suggestions. The choice of recipes to exemplify the food preparation skills will be at the discretion of the school or college to meet the needs of students. The full list of food preparation skills has been thoroughly covered throughout the selected dishes. Practical skill 1: General practical skills will be evidenced throughout all practical activities: e.g. weighing and measuring, preparing ingredients and equipment, selecting and adjusting cooking times, testing for readiness and judging and modifying the sensory properties. Practical skill 4: Use of the cooker will be evident throughout the making of different practical dishes. There are many recipes and exemplification of the food preparation skills and scientific principles throughout the student book, digital resources and teacher resources.

Activities

There is a wide variety of activities to exemplify some of the learning objectives. Potential activities related to each lesson have been suggested. Quiz questions feature throughout the digital book to test knowledge and understanding.

Food preparation skills – Illuminate step-by-step guides and film resources

Skill 1: General practical skills <ul style="list-style-type: none"> • Weighing and measuring • Lining flan tin • Chocolate ganache • Melting chocolate • Making chocolate leaves • Whipped cream • Separating an egg 	Skill 2: Knife skills <ul style="list-style-type: none"> • Preparing fruit and vegetables • Jointing a chicken • Stuffed chicken breast • Filleting fish • Making fish cakes 	Skill 3: Preparing fruit and vegetables <ul style="list-style-type: none"> • Knife skills • Fruit coulis 	Skill 8: Sauce making <ul style="list-style-type: none"> • Hollandaise sauce • Tomato sauce • Béchamel sauce 	Skill 10: Dough <ul style="list-style-type: none"> • Choux pastry • Shortcrust pastry • Pasta 	Skill 11: Raising agents <ul style="list-style-type: none"> • Bread making • Lemon meringue pie • Meringue • Whisked sponge 	Skill 12: Setting mixtures <ul style="list-style-type: none"> • Coagulation
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Illuminate animations

Heat transference <ul style="list-style-type: none"> • Conduction of heat • Convection currents • Radiation in a grill • Microwave heat transfer 	Sauce making <ul style="list-style-type: none"> • Gelatinisation of starch • Reduction • Emulsification 	Doughs <ul style="list-style-type: none"> • Gluten • Fat shortening gluten strands • Rolling and folding 	Raising agents <ul style="list-style-type: none"> • Gas-in-liquid foams • Bicarbonate of soda • Baked mixtures • Steam as a raising agent • Yeast as a raising agent 	Setting mixtures <ul style="list-style-type: none"> • Coagulation of protein 	Food safety <ul style="list-style-type: none"> • Bacteria • Mould • Yeast 	Meat <ul style="list-style-type: none"> • Enzymic browning • Tenderising meat
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GCSE Food Preparation and Nutrition – Year 1

Session	Learning objectives	Teaching and learning	Student book links	DBB links	Practical skills	Spec.
1	<ul style="list-style-type: none"> To understand and apply appropriate hygiene and safety procedures when preparing, cooking and serving food To know and explain key terminology To develop knife skills: bridge hold, claw grip, batons and julienne 	<p>Introduction to the course/ Practical challenges</p> <ul style="list-style-type: none"> Explanation of the Food Preparation and Nutrition course Question: What do we know about personal hygiene and kitchen hygiene? Practical: Omelette challenge. Teacher demonstration: In pairs students make an omelette. Practical: Knife skills challenge: Development of knife skills (julienne and baton). Practical: Vegetable stir fry. 	<ul style="list-style-type: none"> Micro-organisms p158–161 Practice questions p161 Personal hygiene p193–196 	<p>Film & step-by-step: Cutting fruit and vegetables</p> <p>Animation: Bacterial growth</p> <p>TDB Activity 5I: Hygiene in the kitchen – case study</p> <p>Activity 5K: Keeping a clean kitchen</p> <p>TDB Activity 6G: Personal hygiene in the kitchen</p>	<p>Skill 2: Knife skills: bridge hold, claw grip, peel, slice, batons, julienne</p> <p>Skill 3: Preparing fruit and vegetables: peel</p> <p>Skill 6: Cooking methods – stir frying</p>	3.4.2.2
2	<ul style="list-style-type: none"> To understand the food safety principles when buying and storing food To know and apply key temperatures To understand the different sources of bacterial contamination 	<p>Food safety when buying and storing food</p> <ul style="list-style-type: none"> Activity: A day in the life of a high-risk food ingredient. Activity: Log key temperatures on a thermometer Produce a guide for a food preparation and nutrition kitchen explaining food safety Guidelines Practice questions 	<ul style="list-style-type: none"> Food spoilage and contamination p171–184 Practice questions p182–184 Buying and storing p185–201 Practice questions p201 	<p>TDB Activity 6E: A day in the life of a high-risk ingredient</p> <p>Activity 5J: Which bacteria and which food/liquid</p> <p>Activity 5A: Crossword on food safety</p> <p>Activity 6A: Where food should be stored and why</p> <p>Activities 6B/C: Buying food</p> <p>Animation: Bacterial growth</p>		3.4.1.2 3.4.2.2 3.4.1.4

3	<ul style="list-style-type: none"> To understand the food safety principles when preparing, cooking and serving food To know how to correctly use a food probe To understand how to prevent cross contamination 	<p>Food safety when preparing and cooking food</p> <ul style="list-style-type: none"> Activity: To make notes of all the possible areas that could contaminate food whilst demonstrating a meat dish. Key term: cross-contamination Demonstrate how to correctly use a food probe Practical: Lamb kofta/Beef burgers/Meat balls/Falafel To answer questions related to food safety and preparing and cooking meat and vegetables 	<ul style="list-style-type: none"> Food spoilage and contamination p185–201 Practice questions p201 Use of food probes p198–199 	<p>Animation: Bacterial growth</p> <p>Animation: Mould growth</p> <p>Animation: Enzymic browning</p> <p>Film & step-by-step: Cutting fruit and vegetables</p> <p>TDB Activity 6F: Restaurant inspector</p> <p>Activity 5L: Principles of food safety</p>	<p>Skill 7: Prepare, combine and shape wet mixtures</p>	<p>3.4.2.2 3.3.1.2</p>
4	<ul style="list-style-type: none"> To understand the: <ol style="list-style-type: none"> functions of protein in the diet main food sources in the diet (plant and animal, HBV and LBV) effects of deficiency and excess complementation of proteins 	<p>Nutrition: Protein</p> <ul style="list-style-type: none"> Activity: Notes and explanation of protein in the diet Selection of protein ingredients in terms of HBV/LBV Design a range of dishes to show protein complementation Production of revision map Practice questions Practical: Meat stew/Casserole/Thai curry/ Fish cakes 	<ul style="list-style-type: none"> Protein p2–7 Practice questions p7 Recipe: Fish pie p8 	<p>TDB Activity 1A: Match pictures of foods to HBV/LBV proteins</p> <p>Activity 1C: Protein complementation</p> <p>Activity 1B: Produce an information sheet on protein in the diet</p>	<p>Skill 2: Knife skills: slice and chop meat</p> <p>Skill 3: Preparing fruit and vegetables: cut and dice</p> <p>Skill 8: Sauce making – reduction: curry sauce</p>	<p>3.2.1.1</p>

5	<ul style="list-style-type: none"> To understand the protein alternatives, e.g. TVP, soya, mycoprotein and tofu To develop knowledge and understanding of sensory testing and fair testing 	<p>Nutrition: Protein/Sensory testing</p> <ul style="list-style-type: none"> Sensory analysis and discussion of alternative proteins – completion of chart Practical investigation – TVP, Quorn and tofu Revision of proteins Questions Practical: Protein dish using vegetable protein, e.g. 3 bean casserole/Chickpea curry 	<ul style="list-style-type: none"> Protein p2–7 	<p>TDB Activity 1B: Produce an information sheet on protein in the diet</p>	<p>Skill 2: Knife skills: slice and chop meat alternatives</p>	3.2.1.1
6	<ul style="list-style-type: none"> To develop making skills/processes when using fish To develop sauce making skills and finishing techniques 	<p>Preparation skills: Protein/Fish and Sauce making</p> <ul style="list-style-type: none"> Practical: Piping of potato: To practise piping skills using instant mashed potato Practical: Fish/Quorn potato topped pie Spot demonstrations throughout the lessons: vegetable preparation/sauce making/piping/fish preparation Explain food storage requirements for fish To explain the structure and composition of meat and fish, e.g. connective tissue and why some meat needs to be tenderised Stretch and challenge activity: p9 	<ul style="list-style-type: none"> Recipe p8 Stretch and challenge p9 	<p>Film & step-by-step: Making sauces</p> <p>Animation: Tenderising meat</p> <p>Animation: Gelatinisation of starch</p> <p>TDB Activity 4H: Gelatinisation: explain the process</p>	<p>Skill 2: Knife skills: bridge hold, claw grip, peel, slice</p> <p>Skill 3: Preparing fruit and vegetables, peel, pipe</p> <p>Skill 8: Sauce demonstrating starch gelatinisation: roux, all-in-one, ratio affecting viscosity</p>	3.3.2.1
7	<ul style="list-style-type: none"> To know and practice filleting fish To develop food preparation skills when using fish 	<p>Preparation skills: Fish</p> <ul style="list-style-type: none"> Practical investigation: Filleting fish and step-by-step activity. Practical: Fish cakes Spot demonstrations throughout the lesson Stretch and challenge activity: p9 	<ul style="list-style-type: none"> Recipe: Fish cakes p46 	<p>Film & step-by-step: Filleting fish</p> <p>Film & step-by-step: Fish cakes</p>	<p>Skill 2: Knife skills: fillet fish</p> <p>Skill 7: Prepare, combine and shape wet mixtures</p> <p>Skill 6: Cooking methods, steaming and boiling</p>	3.3.2.1

8	<ul style="list-style-type: none"> To understand: <ol style="list-style-type: none"> protein denaturation protein coagulation 	<p>Protein: Functional and chemical properties – denaturation and coagulation</p> <ul style="list-style-type: none"> Explanation of denaturation and coagulation Practical investigation: Frying, scrambling, poaching and boiling eggs. Record results Practical: Chilled lemon flan/Swiss roll/Lemon curd/Crème caramel/Grilled salmon and tomato pasta Spot demonstrations throughout the lesson Practical: Meat/fish or vegetable dish to demonstrate how the acids denature protein: Chicken fajitas/Kebabs 	<ul style="list-style-type: none"> Denaturation and coagulation p105–107 Practice questions p115 Recipe: Chilled lemon flan p108–109 Practice questions p115 	<p>Crème caramel Grilled salmon and tomato pasta</p> <p>Animation: Coagulation of protein</p> <p>Film & step-by-step: Whisked sponge/ Cheese and tomato flan</p> <p>TDB Activity 4A: Coagulation of protein – missing word</p> <p>Activity 4B: Denatured protein – missing word</p> <p>Activity 4C: Proteins anagrams</p> <p>Activity 4D: Protein key words</p> <p>Activity 4E: Explain the process of coagulation</p>	<p>Skill 6: Cooking methods</p> <p>Skill 11: Eggs as a raising agent – whisked sponge</p> <p>Skill 12: Setting mixtures – use of protein</p> <p>Skill 9: Tenderise and marinate</p> <p>Skill 7: Prepare, combine and shape</p>	<p>3.3.2.1</p> <p>3.3.1.2</p>
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9	<ul style="list-style-type: none"> To understand the: <ol style="list-style-type: none"> gluten formation foam formation 	<p>Protein: Function and chemical properties – gluten formation and foam formation</p> <ul style="list-style-type: none"> Explanation of gluten formation Practical investigation: Making bread rolls with different flours to produce gluten balls Practical: Flavoured bread/Bread rolls/Cajun spiced bread Notes/questions related to gluten formation and foam formation 	<ul style="list-style-type: none"> Gluten formation p110–111 Recipe: Bread rolls p112–113 Foam formation p114–115 Practice questions p115 	<p>Animation: Gluten formation</p> <p>Film & step-by-step: Bread making</p> <p>TDB Activity 4F: Coagulation, gluten formation and denaturation challenge</p> <p>Recipe: Cajun spiced bread</p>	<p>Skill 10: Dough – Making a dough: gluten formation</p> <p>Skill 10: Shaping and finishing: proving and resting</p>	3.3.2.1
10	<ul style="list-style-type: none"> To know the difference between primary and secondary processing To understand the processing of milk to make cheese and yogurt To further reinforce denaturation and coagulation To understand the use of micro-organisms in food production 	<p>Food production</p> <ul style="list-style-type: none"> Primary and secondary processing Video to look at cheese making and yogurt production. Group activity: make soft cheese Tasting session: cheese making Teacher demonstration of yogurt making Tasting session: milk tasting (UHT/micro filtered etc.) Practical: Layered dessert using yogurt/ Cheesecake/Trifle 	<ul style="list-style-type: none"> Cheese making p165–169 Yogurt making p170 	<p>TDB Activity 11A: Investigate the production of yogurt/flow diagram</p> <p>Activity 11C: Carry out testing session of different yogurts and milk</p> <p>Animation: Coagulation of protein</p>	<p>Skill 12: Setting mixtures: Removal of heat – gelatinisation setting a chilled dessert</p>	3.3.2.1 3.4.1.3 3.6.2.1

11	<ul style="list-style-type: none"> To understand the: <ol style="list-style-type: none"> functions of carbohydrates in the diet (starch, sugars and fibre) main food sources in the diet effects of deficiency and excess related dietary reference values 	<p>Nutrition: Carbohydrates</p> <ul style="list-style-type: none"> Activity: Notes and explanation of carbohydrates in the diet. Selection of carbohydrate Production of revision map Practice questions PAL – the recommended percentage of energy intake/life stages Practical: Minestrone soup/Wholemeal scones/Courgette, onion and cheese muffins. Other soup recipes 	<ul style="list-style-type: none"> Carbohydrates p16–19 Practice questions p21 Recipe: Courgette, onion and cheese muffins p20 Energy p58–62 Practice questions p62 	<p>TDB Activity 1G/H: Match the name of individual carbohydrates to their classifications</p> <p>TDB Activity 1I: Find the sugars</p> <p>Activity 1J: How much sugar am I drinking?</p> <p>Activity 2C: How many calories?</p>	<p>Skill 2: Knife skills: bridge hold, claw grip, peel, slice</p> <p>Skill 3: Preparing fruit and vegetables: peel shred, grate, de-seed, blanch</p> <p>Skill 11: Raising agents: chemical – using baking powder</p> <p>Skill 5: Use of equipment – blender</p>	3.2.1.3 3.2.3.2
12	<ul style="list-style-type: none"> To understand the scientific principles related to carbohydrates: gelatinisation To understand the heat transference methods: conduction and convection 	<p>Carbohydrates: Function and chemical properties – gelatinisation</p> <ul style="list-style-type: none"> Explanation of gelatinisation Activity: Flow chart of gelatinisation Practical investigation: Viscosity of sauces or sauce making methods (all in one, roux, microwave, blended) Practical: Lasagne/Cannelloni/Sweet and sour sauce Spot demonstrations throughout the lesson Explanation of heat transference method: conduction and convection 	<ul style="list-style-type: none"> Gelatinisation p117–119 Recipe: Lasagne 120–121 Practice questions p126 Heat transference: p85–90 	<p>Animations: Gelatinisation/ Reduction/ Conduction/ Convection/ Radiation</p> <p>Recipes: Ricotta and spinach lasagne</p> <p>TDB Activity 4H: Gelatinisation: explain the process</p> <p>Activity 4G: Compare caramelisation and dextrinisation</p> <p>Activity 4H: Carbohydrates quiz</p>	<p>Skill 8: Sauce demonstrating starch gelatinisation: roux, all-in-one, ratio affecting viscosity, blended, Béchamel</p> <p>Skill 6: Cooking methods: dry frying</p> <p>Skill 8: Sauce making – Reduction: tomato sauce</p>	3.3.2.2 3.3.1.1

13	<ul style="list-style-type: none"> To understand the scientific principles related to carbohydrates: caramelisation, dextrinisation To understand the heat transference methods: conduction and convection To understand how to make successful shortcrust pastry Skills: Shortcrust pastry 	<p>Carbohydrates: Function and chemical properties – caramelisation and dextrinisation</p> <ul style="list-style-type: none"> Explanation of caramelisation/dextrinisation Demonstrate: pastry making Practical investigation: Melting sugar Practical: Roasted vegetable tart Spot demonstrations throughout the lesson Explanation of heat transference methods 	<ul style="list-style-type: none"> Caramelisation/ dextrinisation p122–123 Recipe: Caramelised onion and goat’s cheese tart p124 Practice questions p126 Heat transference p85–90 	<p>Animations: Conduction/ Convection/ Radiation</p> <p>Film & step-by-step: Shortcrust pastry</p> <p>Animation: Fat shortening gluten</p> <p>Recipe: Sun-dried tomato pinwheels/ Roasted vegetable tart</p> <p>TDB Activity 3B: Match the method of heat transference to the foods</p> <p>Activity 3A: Why food is cooked and how heat is transferred to food</p>	<p>Skill 10: Making a dough – shortening, shaping and finishing</p> <p>Skill 12: Setting a mixture using protein</p> <p>Skill 5: Use of equipment – food processor</p>	<p>3.3.2.2</p> <p>3.3.1.1</p>
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14	<ul style="list-style-type: none"> To know the difference between primary and secondary processing To understand the processing of wheat to make flour To understand how processing affects the nutritional value 	<p>Food production</p> <ul style="list-style-type: none"> Primary and secondary processing Video to examine the milling of wheat Flow diagram of producing wheat Bread tasting: different breads made from flour Practical investigation: Flavouring and colouring pasta Practical: Tortellini/Ravioli 	<ul style="list-style-type: none"> Milling of flour p276 Recipe: Caramelised onion and goat's cheese tart p124 	<p>Film & step-by-step: Pasta</p> <p>TDB Activity 11D: Practical investigation: different flours to make pasta.</p> <p>Activity 11E: Practical investigation: adding flavourings and natural colourings to pasta</p> <p>Activity 11B: Practical Name the pasta shapes</p>	<p>Skill 10: Making a dough: pasta</p> <p>Skill 10: Making a dough: shaping and finishing</p> <p>Skill 5: Use of equipment – pasta machine</p>	3.6.2.1
15	<ul style="list-style-type: none"> To understand the: <ol style="list-style-type: none"> functions of fat in the diet and the types of fat (saturated and unsaturated) main food sources effects of deficiency and excess related dietary reference values 	<p>Nutrition: Fats and oils</p> <ul style="list-style-type: none"> Activity: Notes and explanation of fat in the diet. Selection of different fats. Production of revision map Practice questions Practical: Modification of high fat recipe, e.g. cheesecake Practical: Roasted Mediterranean vegetable quiche/Apple tart/Tarte tatin/Sun-dried tomato palmiers 	<ul style="list-style-type: none"> Fats and oils p10–16 Practice questions p16 Recipe: Roasted Mediterranean vegetable quiche p14–15 	<p>TDB Activity 1D: Invisible fats in foods</p> <p>Activity 1E: Find the fat</p> <p>Activity 1F: Fats in the diet</p> <p>Animation: Rolling and folding</p>	<p>Skill 10: Making a dough: create layers – palmiers</p> <p>Skill 10: Making a dough – shortening, shaping and finishing</p>	3.2.1.2 3.2.3.3

16	<ul style="list-style-type: none"> To understand the scientific principles related to fats and oils: shortening and plasticity To understand how to make shortcrust pastry 	<p>Fats: Function and chemical properties – shortening and plasticity</p> <ul style="list-style-type: none"> Explanation of shortening and plasticity Practical investigation: Making pastry samples with different fat combinations Practical: Quiche/Meat or vegetable and cheese pasties/Chocolate mousse Spot demonstrations throughout the lesson Questions 	<ul style="list-style-type: none"> Plasticity p127 Recipe: Frosting (All-in-one chocolate and orange cake)/ Lasagne p128/120 Shortening p130–131 Recipe: Cheese and vegetable pasties: p132–133 Practice questions p140 	<p>Animations: Shortening</p> <p>Film & step-by-step: Shortcrust pastry/ Lining a flan tin</p> <p>TDB Activity 4J: Fill in the missing words: plasticity, etc.</p> <p>TDB Activity 4L: Pastry sensory analysis</p>	<p>Skill 10: Making a dough: pastry</p> <p>Skill 10: Making a dough – shortening, shaping and finishing</p> <p>Skill 2: Knife skills: bridge hold, claw grip, peel, slice, batons, julienne</p> <p>Skill 3: Preparing fruit and vegetables: peel</p> <p>Skill 11: Raising agents – whisking egg whites</p>	3.3.2.3
17	<ul style="list-style-type: none"> To understand the scientific principles related to fats and oils: emulsification 	<p>Fats: Emulsification</p> <ul style="list-style-type: none"> Explanation of emulsification Practical challenge: Making a Hollandaise sauce/Mayonnaise Test: Nutrition: Protein/Fat/Carbohydrates 	<ul style="list-style-type: none"> Emulsification: p135–138 Practice questions p140 	<p>Animation: Emulsification</p> <p>Film & step-by-step: Making a Hollandaise sauce</p> <p>TDB Activity 4K: Emulsification</p>	<p>Skill 8: Sauce making – emulsions</p>	

18	<ul style="list-style-type: none"> To understand the scientific principles related to fats and oils: aeration To understand the scientific principles of raising agents. (chemical/mechanical) 	<p>Fats: Function and chemical properties – aeration/Raising agents</p> <ul style="list-style-type: none"> Explanation of aeration Practical: Swiss roll/Victoria sandwich cake/ Gingerbread/Watercress and Salmon roulade/ Cheese or herb scone round/Puff pastry cheese twists Practical investigation: Making cakes using different raising agents: chemical and mechanical Practice questions 	<ul style="list-style-type: none"> Aeration p141 Recipe: Swiss roll p142 Doughs p143–145 Recipe: Puff pastry twists p144–145 Carbon dioxide p146 Recipe: Cheese or herb scone round/ Gingerbread p147–148 Practice questions – p154 	<p>Animations: Gas-in-liquid foams/ Bicarbonate of soda/ Baked mixtures</p> <p>Film & step-by-step: Swiss roll</p> <p>TDB Activity 4M/N: Match the food product with the raising agent/ Explain the process</p>	<p>Skill 11: Raising agents: Eggs as raising agent/ Chemical raising agents: baking powder, bicarbonate of soda</p> <p>Skill 10: Making a dough: pastry</p>	<p>3.3.2.3</p> <p>3.3.2.5</p>
19	<ul style="list-style-type: none"> To understand the scientific principles of raising agents (steam/biological) To understand how different raising agents work in different recipes 	<p>Raising agents</p> <ul style="list-style-type: none"> Notes and annotated sketches of raising agents Practical: Choux pastry/Batter/Savoury choux buns Practical investigation: Batters Practical investigation: Yeast experiments Practical: Chelsea buns/Tear and share tray bread 	<ul style="list-style-type: none"> Yeast: p149 Recipe: Chelsea buns p150 Steam p151 Recipe: Choux pastry p152–153 	<p>Animation: Yeast/ Steam/Baked mixtures</p> <p>Film & step-by-step: Choux pastry/Bread making</p> <p>TDB Activity 4O: Scientific investigation: conditions for yeast to multiply</p> <p>Activity 4P: Identify the raising agent and explain the process</p> <p>Recipe: Tear and share tray bread/ Chelsea buns</p>	<p>Skill 11: Raising agents: use of steam in mixture: choux pastry, batter</p> <p>Skill 11: Raising agents: Biological use of yeast</p>	3.3.2.5

20	<ul style="list-style-type: none"> To understand the: functions, sources, effects of deficiency and excess, and related dietary reference values for: fat and water soluble vitamins To understand how the selection of appropriate preparation and cooking methods can conserve or modify nutrition value 	<p>Nutrition: Vitamins and minerals</p> <ul style="list-style-type: none"> Theory tasks related to water and water soluble vitamins Practical investigation: Examine different cooking methods: water based: steaming, boiling, simmering, blanching, poaching and braising. Practical: Mackerel pate/Fish cakes/Crunchy orange and watercress salad 	<ul style="list-style-type: none"> Vitamins: p22–27 Practice questions p30 Recipe: Crunchy orange and watercress salad/ Mackerel pate p28–29 Nutritional value p101–102 	<p>TDB Activity 1K: Vitamins wordsearch</p> <p>Activity 1L: Match the vitamin function to the correct vitamin</p> <p>Activity 1M: Match the deficiency to the correct vitamin</p> <p>Film & step-by-step: Fish cakes</p>	<p>Skill 3: Preparing fruit and vegetables: mash, scissor snip, de-skin, segment</p> <p>Skill 6: Cooking methods – water based</p>	<p>3.2.2.1 3.3.1.2</p>
21	<ul style="list-style-type: none"> To understand the: functions, sources, effects of deficiency and excess, and related dietary reference values for: minerals The important of hydration and the functions of water in the diet 	<p>Nutrition: Minerals</p> <ul style="list-style-type: none"> Theory tasks related to minerals Task to make a dish for different client groups that are high in calcium/iron Research task: Functions of water 	<ul style="list-style-type: none"> Minerals p30–35 Practice questions p35 Water p36–37 Practice questions p37 	<p>TDB Activity 1N: Match the mineral function to the correct mineral</p> <p>Activity 1O: Minerals crossword</p> <p>Activity 1P: Importance of water</p> <p>Activity 1Q: Dehydration</p>	<p>Variety of skills dependent of choice of recipes</p>	<p>3.2.2.2 3.2.2.3</p>
22	<ul style="list-style-type: none"> To understand the scientific principles related to fruits and vegetables: enzymic browning and oxidation To understand the process emulsification 	<p>Enzymic browning and oxidation</p> <ul style="list-style-type: none"> Notes and annotated sketches of raising agents Practical investigations: Fruit and vegetables Practical: Prepare a salad with accompanying dressing to show emulsification 		<p>Animation: Enzymic browning/ Emulsification</p> <p>TDB Activity 5B: Enzymic browning</p>	<p>Skill 3: Preparing fruit and vegetables: controlling enzymic browning/garnishing</p>	<p>3.3.2.4</p>

23	<ul style="list-style-type: none"> To understand current guidelines for a healthy diet To understand nutritional needs for different life stages To major diet related health risks To know the recommended percentage of energy provided by protein, fat and carbohydrates 	<p>Nutritional needs</p> <ul style="list-style-type: none"> Theory nutritional needs for different life stages To understand the current guidelines for a healthy diet, e.g. Eatwell Guide Eatwell Guide – practical challenge Practical: Eatwell Guide dish Practical: Roasted vegetable and pasta medley/Jambalaya/Fish cakes/Cottage pie with Cheddar and sautéed leek mash/Lemon chicken 	<ul style="list-style-type: none"> Nutritional needs p38–55 Practice questions p55 Recipes: Roasted vegetable and pasta medley p40 Fish cakes p46 Jambalaya p49 Cottage pie with Cheddar and sautéed leek mash p54 Lemon chicken p52 	<p>TDB Activity 2A: Eatwell Guide challenge</p> <p>Activity 2C: How many calories?</p> <p>Activity 2D: Put pictures of foods in order of energy density</p> <p>Activity 2E: Energy density</p> <p>Activities 2H–O: What are the risk factors?</p> <p>Activity 2O: Obesity and the diet</p>	<p>Skill 2: Knife skills: bridge hold, claw grip, peel, slice, batons, julienne</p> <p>Skill 3: Knife skills: meat and fish</p> <p>Skill 3: Preparing fruit and vegetables: various skills</p> <p>Skill 10: Making a dough: pasta</p> <p>Skill 10: Making a dough: shaping and finishing</p> <p>Skill 5: Use of equipment – pasta machine</p>	<p>3.2.3.4</p> <p>3.2.3.1</p> <p>3.2.3.2</p>
24	<ul style="list-style-type: none"> To produce and analyse a dish that shows a range of food preparation skills and demonstrates some of the functional and chemical properties of food 	<p>Functional and chemical properties of food</p> <ul style="list-style-type: none"> Demonstrate lemon meringue pie or alternative Practical: Lemon meringue pie Student report explaining the function and chemical properties of the ingredients 	<ul style="list-style-type: none"> Chapters 3 & 4 	<p>Film & step-by-step: Lemon meringue pie</p> <p>Film & step-by-step: Meringue</p> <p>Animations: Baked products</p> <p>TDB Activity 4A: Coagulation of protein – missing word</p> <p>Activity 4B: Denatured protein – missing word</p>	<p>Skill 3: Preparing fruit and vegetables: mash, scissor snip, de-skin, segment</p> <p>Skill 6: Cooking methods – water based</p>	<p>3.3.1</p> <p>3.3.2</p>

25	<ul style="list-style-type: none"> To know how to carry out nutritional analysis To analyse a recipe and be able to modify the dish to improve the nutritional content 	<p>Nutritional analysis</p> <ul style="list-style-type: none"> Understanding of Dietary Reference Values Practical: Vegetable/meat cobbler To plan, prepare, cook and modify the recipe for: low fat diet/high fibre diet 	<ul style="list-style-type: none"> Nutritional analysis p63–69 Practice questions p68–69 Diet, nutrition and health p70–77 Practice questions p77 Nutritional analysis software (free BNF). 	<p>TDB Activity 2F: Carry out nutritional analysis of meat cobbler</p> <p>Activity 2G: Nutritional analysis of breakfast cereals</p>	Variety of skills dependent on choice of recipes	3.2.3.1 3.2.3.3
26	<ul style="list-style-type: none"> To understand the nutritional requirements for specific dietary groups: vegetarian, vegan, coeliac, lactose intolerant, reduced fat and high fibre 	<p>Dietary groups</p> <ul style="list-style-type: none"> Discussion relates to different dietary groups Meal planning case studies for different dietary groups To plan, prepare, cook and modify the recipe for: low fat diet/high fibre diet 	<ul style="list-style-type: none"> Nutritional needs p56–57 Practice questions p57 	<p>Recipes: Lemon drizzle cake/ Vegetable and bean stew or spicy bean cobbler with wholemeal scone topping</p> <p>Chocabeet cake/ Meatloaf</p> <p>TDB Activity 2B: Vegetarian/vegan research task</p>	Variety of skills dependent on choice of recipes	3.2.3.1

27	<ul style="list-style-type: none"> To understand the reasons for cooking food 	<p>Heat transference and reasons for cooking food</p> <ul style="list-style-type: none"> Theory notes related to reasons for cooking food Experimental work: Conduction, convection and radiation Activity: Fact sheets explaining heat transference methods Practical: Curry/Kedgerree/Spiced poached pears/Steamed sponge pudding/Apple and apricot crumble/Carrot cake muffins/Cannelloni/Vegetable stir fry 	<ul style="list-style-type: none"> Reasons for cooking food p78–84 Activity: p84 Heat transference p85–90 Practice questions p90 	<p>Animations: Conduction/ Convection/ Radiation</p> <p>Recipes: Steamed sponge pudding/ Apple and apricot crumble Carrot cake muffins Cannelloni Vegetable stir fry/ Curry Kedgerree Spiced poached pears</p> <p>Activity 3A: Why food is cooked and how heat is transferred to food</p> <p>TDB Activity 3B: Match the method of heat transference to the food</p> <p>Activity 3C: Why do we cook food and how would you cook it?</p> <p>Activity 3D: How was this cooked?</p> <p>Activity 3E: How would I cook this?</p> <p>Activity 3F: Cooking methods test</p>	<p>Skill 11: Raising agents</p> <p>Skill 2: Knife skills</p> <p>Skill 5: Use of equipment</p> <p>Skill 6: Cooking methods</p>	3.3.1.1
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28	<ul style="list-style-type: none"> To understand the reasons for cooking food To understand how different cooking methods affect food To develop complex knife skills, e.g. portioning a chicken 	<p>Portioning a chicken/Selecting cooking methods</p> <ul style="list-style-type: none"> Explanation of how preparation and cooking affect the appearance, flavour, texture, etc. of food Cooking methods explained: water-based, dry and fat-based Practical investigation: Portioning a chicken Practical challenge: p102 (Variety of recipes) Spot demonstrations throughout the lesson Practical: Chicken casserole/Chicken chasseur/Sweet and sour chicken/Lemon roasted chicken with mustard and onion mash Technical challenge: Comparison of fish/potatoes cooked with different methods (steam, fry, bake, microwave, etc.) 	<ul style="list-style-type: none"> Cooking methods p90–104 Practice questions p104 Practical challenge p102 Recipe: Lemon roasted chicken with mustard and onion mash p52 	<p>Curry/Kedgeree/Spiced poached pears/Home-made burgers/Steamed sponge pudding/Apple and apricot crumble/Carrot cake muffins/Cannelloni/Vegetable stir fry</p> <p>Activity 3A: Why food is cooked and how heat is transferred to food</p> <p>TDB Activity 3B: Match the method of heat transference to the foods</p> <p>Activity 3C: Why do we cook food and how would you cook it?</p> <p>Activity 3D: How was this cooked?</p> <p>Activity 3E: How would I cook this?</p> <p>Activity 3F: Cooking methods test.</p> <p>Film & step-by-step: Jointing a chicken Stuffed chicken breast and butterfly fillet</p>	<p>Skill 2: Knife skills: Fillet a chicken breast, portion a chicken, remove fat and rind</p> <p>Skill 6: Cooking methods</p>	<p>3.3.1.1 3.3.1.2</p>
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29	<ul style="list-style-type: none"> To understand the term sensory evaluation To know the different methods for carrying out sensory evaluation To understand the conditions and controls required when carrying out sensory evaluation 	<p>Sensory Evaluation</p> <p>What is sensory evaluation? YouTube clip</p> <ul style="list-style-type: none"> Discussion related to why sensory analysis is carried out Examine the different sensory testing methods: Ranking, rating and difference tests To discuss controls Practical investigation: Using sensory tests 	<ul style="list-style-type: none"> Sensory evaluation p247–254 Practice questions p254 	<p>TDB Activity 9A: Practical investigations related to sensory testing.</p> <p>Activity 9B: Organising a food panel.</p> <p>Activity 9C: Sensory appreciation.</p>		3.5.3
30 31 32	<ul style="list-style-type: none"> To understand the expectations of the NEA Investigation task To carry out a modified task (not a full investigation) <p>Possible tasks: NEA specimens</p> <ol style="list-style-type: none"> Investigate what type of flour is best for bread making Investigate the use of raising agents in baked products Investigate the ingredients used to thicken sauces and soups 	<p>NEA Practice task – Food Investigation</p> <p>Teaching points</p> <ul style="list-style-type: none"> Analyse the task Carry out background research of the working characteristics, functions and chemical properties of the ingredients to investigate Summarise the research Write a prediction or hypothesis for the practical investigations Plan a practical investigation and experimental work based on the research findings Practical experimentation: investigate how ingredients work and why Present the results of the testing Analyse, interpret and evaluate the results of the investigation Evaluate the hypothesis/prediction Explain how the results can be used when preparing and cooking food 		<p>TDB Activity 4G: Compare caramelisation and dextrinisation</p>		3.3.1.1 3.3.1.2 3.3.2.1 3.3.2.2 3.3.2.3 3.3.2.4 3.3.2.5 3.5.3

33	<ul style="list-style-type: none"> To understand the factors that affect food choice To have the knowledge of different dietary groups/life stages 	<p>Food choice</p> <ul style="list-style-type: none"> To discuss and mind map the factors which may influence food choice Activity: Concept plans to show the factors which affect different groups, e.g. Single, low income, e.g. student, elderly person, Low income, family, Family with 4 children and busy lifestyle, Elderly couple living on a pension, Adult couple concerned about environmental sustainability Practical: To plan, prepare, cook and modify the recipe for a dietary group 	<ul style="list-style-type: none"> Food choice p202–210 Practice questions p210 	<p>TDB Activity 7A: Produce concepts maps for individual groups related to food choice</p> <p>Activity 7B: Food choice conflicts</p> <p>Activity 7C: Your food decisions</p> <p>Activity 7D: Food choices and religion – you're in charge</p> <p>Activity 7E: Religion and food choices</p> <p>Activity 7F: Food choice and religion – revision cards</p>	Wide range of food preparation skills dependent on the dishes chosen	3.5.1.1
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34	<ul style="list-style-type: none"> To understand food choice related to religion, culture, ethical, moral beliefs and medical conditions 	<p>Food choices and international cuisine</p> <ul style="list-style-type: none"> Activity: In groups to select a religion, culture, ethical and moral belief and medical condition to research and present to the group Questions related to topic 	<ul style="list-style-type: none"> Religion, culture p211–216 Medical conditions p216–220 Practice questions p220 	<p>Recipes: Casserole/ Tagine/Tabbouleh/ Thai green curry/ Thai chicken soup/ Jerk chicken with rice and peas/Quesadillas with guacamole and tomato salsa/ Oven baked risotto/ Marguerita pizza/ Calzone</p>	<p>Wide range of food preparation skills dependent on the dishes chosen</p>	3.3.1.2
35	<ul style="list-style-type: none"> To develop research skills To understand the expectations of the NEA Food Preparation tasks 	<p>Food choices and international cuisine</p> <ul style="list-style-type: none"> Individually select a country and research: recipes, eating patterns, equipment and cooking methods associated with the country Practical: To plan, prepare, cook and present a practical dish 	<ul style="list-style-type: none"> International cuisine p237–246 Practical challenge p246 	<p>Activities 8A: International cuisines Activity 7D: Food choices and religion – you're in charge Activity 7E: Religion and food choice Activity 7F: Food choice and religion – revision cards</p>	<p>Wide range of food preparation skills dependent on the dishes chosen</p>	3.5.2

36	<ul style="list-style-type: none"> To understand the environmental issues associated with food 	<p>Food and the environment</p> <ul style="list-style-type: none"> Discuss issues surrounding: seasonal foods, sustainability, organic foods, locally produced food, carbon footprint, packaging and food waste Activity: Food waste diary: Produce a diary of the food wasted by your family over a 7 day period. Produce an evaluation explaining how you as a family could reduce food waste Practical: Prepare a dish using English or locally grown fruits. The recipe must demonstrate food styling, e.g. garnishes and decorative techniques, e.g. Strawberry petal cake, fruit flan, apple pie 	<ul style="list-style-type: none"> Food and environment p263–269 Practice questions p269 	<p>Film & step-by-step: Chocolate ganache/ Melting chocolate/ Coulis/Chocolate leaves.</p> <p>TDB Activity 10C: Food waste diary</p> <p>Activity 10D: Food miles</p>	<p>Skill 2: Knife skills</p> <p>Skill 3: Preparing fruit and vegetables</p>	3.6.1.2
37 38	<ul style="list-style-type: none"> To understand where and how ingredients are grown, reared and caught 	<p>Food sources</p> <ul style="list-style-type: none"> Examine reared ingredients: meat and poultry; caught ingredients: fish; grown ingredients: fruits, vegetables and cereals Discuss issues surrounding: organic and conventional farming, free range production, intensive farming, sustainable fishing, and genetically modified foods YouTube clips to demonstrate Activity: Advantages and disadvantages of farming methods 	<ul style="list-style-type: none"> Food sources p255–262 Practice questions p262 	<p>TDB Activity 10A: Research and fact cards related to different food sources</p> <p>Activity 10B: Plan and make a dish that uses seasonal/local ingredients</p>	<p>Wide range of food preparation skills dependent on the dishes chosen</p>	3.6.1.1

39	<ul style="list-style-type: none"> To understand the impact of food and food security on local and global markets 	<p>Sustainability of food</p> <ul style="list-style-type: none"> Discuss issues surrounding: climate change, global warming, sustainability of food sources, and insufficient land for growing food, availability of food, fairtrade, food waste, drought and flooding Model an extended answer to the above issues Activity: Advantages and disadvantages of farming methods Match the logo with the sustainability issue. Use Fairtrade, Organic, GM, Red Tractor, Freedom Food, RSPCA, Forest Stewardship Council, recycling food packaging, sustainable fishing, etc. Students have to explain each label and how this impacts on sustainability. Fact sheet on Fairtrade – survey of ingredients which can be purchased using fairtrade ingredients Practical: Prepare a dish with at least two fair trade ingredients 	<ul style="list-style-type: none"> Sustainability of food p269–272 Practice questions p273 Activity p273 Practical challenge p273 	<p>TDB Activity 10E: Match the logo with the sustainability issue</p> <p>Activity 10F: Environmental food issues wordsearch</p> <p>Activity 10G: Activity for Fairtrade fortnight</p> <p>Film & step-by-step: Chocolate ganache/ Melting chocolate/ Coulis/Chocolate leaves</p>	Wide range of food preparation skills dependent on the dishes chosen	3.6.1.3
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