

Subject Food Preparation and Nutrition

Exam Board Eduqas 601/8093/6

Exam content 1 written paper + two NEA

| <b>Paper/module number</b>                                 | <b>Duration</b>                          | <b>Content</b>  | <b>Exam date</b>   | <b>Percentage of overall GCSE</b> |
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| <b>Component 1<br/>Written Paper<br/>(C560P1)</b>          | 1 hour 45 minutes                        | 100 marks available<br>Answer all questions in two sections.  |                    | 50%                               |
| <b>Component 2<br/>Assessment 1<br/>Food Investigation</b> | 8 hours                                  | An exam board set food investigation that will require each learner to:<br>(i) (a) research and plan the task<br>(b) investigate the working characteristics, function and chemical properties of ingredients through practical experimentation and use the findings to achieve a particular result<br>(c) analyse and evaluate the task<br>(ii) produce a report which evidences all of the above and includes photographs and/or visual recordings to support the investigation | Completed in class | 15%                               |
| <b>Component 2<br/>Assessment 2<br/>Food Preparation</b>   | 12 hours including 3 hour practical exam | This assessment will require learners to:<br>Plan, prepare, cook and present a selection of dishes, to meet particular requirements such as a dietary need, lifestyle choice or specific context.   | Completed in class | 35%                               |

| <b>Key Ideas</b>  | <b>Specification Content</b>  | <b>Revised</b> | <b>Am confident about</b> |
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| <b>Food commodities:</b><br><br>1. bread, cereals, flour, oats, rice, potatoes, pasta | For each food commodity learners need to know and understand:<br><br>1. the value of the commodity within in the diet |                |                           |

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| <ol style="list-style-type: none"> <li>2. fruit and vegetables (fresh, frozen, dried, canned and juiced)</li> <li>3. milk, cheese and yoghurt</li> <li>4. meat, fish, poultry, eggs</li> <li>5. soya, tofu, beans, nuts, seeds</li> <li>6. butter, oils, margarine, sugar and syrup</li> </ol> | <ol style="list-style-type: none"> <li>2. features and characteristics of each commodity with reference to the correct storage method to avoid food contamination</li> <li>3. the working characteristics of each commodity, with reference to the skill group and techniques table listed in Appendix A, e.g. when subjected to dry/moist methods of cooking</li> <li>4. the origins of each commodity</li> </ol>   |  |  |
| <p><b>Macronutrients and Micronutrients:</b></p> <ol style="list-style-type: none"> <li>1. the definition of macronutrients and micronutrients in relation to human nutrition.</li> <li>2. the role of macronutrients and micronutrients in human nutrition</li> </ol>                         | <p><b>Macronutrients</b> are defined as a class of chemical compounds which humans consume in the largest quantities:</p> <p>(i) <b>protein:</b> to include essential amino-acids in relation to nutritional requirements (histidine, isoleucine, lysine, leucine, methionine, phenylalanine, threonine, tryptophan, valine) and non-essential (alanine, asparagine, aspartic acid glutamic acid)</p> <p>(ii) <b>fats, oils and lipids:</b> saturated fats, monounsaturated fats, polyunsaturated fats and essential fatty acids</p> <p>(iii) <b>carbohydrates:</b> monosaccharides, disaccharides and polysaccharides</p> <p><b>Micronutrients</b> are consumed in small quantities to facilitate a range of physiological functions:</p> <p>(i) <b>fat soluble vitamins:</b> vitamin A, and vitamin D</p> <p><b>water soluble vitamins:</b> B vitamins: B1 thiamin, B2 riboflavin, B3 niacin, B12 cobalamin and B9 folic acid (folate) and vitamin C</p> <p>(ii) <b>minerals:</b> calcium, iron, potassium and magnesium</p> <p>(iii) <b>trace elements,</b> to include: iodine and fluoride</p> <p>Learners must know and understand for each named macro nutrient and micronutrient:</p> <ol style="list-style-type: none"> <li>1. the specific function</li> <li>2. the main sources</li> <li>3. dietary reference values</li> <li>4. the consequences of malnutrition (over and under)</li> <li>5. complementary actions of the nutrients</li> </ol> <p>Learners need to know and understand the dietary value of:</p> |  |  |

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|  | <p>(i) <b>water</b></p> <p>(ii) <b>dietary fibre (NSP)</b></p>   |  |  |
| <p><b>Diet and Good Health:</b><br/>Energy requirements of individuals</p> | <p>Learners must know and understand:</p> <ol style="list-style-type: none"> <li>the recommended daily intake (RDI) and the percentage energy values of protein, fat and carbohydrates: monosaccharides (sugars) polysaccharides (starch) and non-soluble polysaccharides (dietary fibre) vitamins and minerals, for: <ul style="list-style-type: none"> <li>(i) <b>a range of life-stages:</b> toddlers, teenagers, early, middle and late adulthood</li> <li>(ii) <b>individuals with specific dietary needs or nutritional deficiencies</b> to include coeliac disease; diabetes (type 2 diabetes only to be considered), dental caries; iron deficiency anaemia; obesity; cardiovascular disease (CVD); calcium deficiencies to include bone health; nut or lactose (dairy) intolerances</li> <li>(iii) <b>individuals with specific lifestyle</b> needs to include vegetarians: lacto-ovo, lacto, vegan, and those with religious beliefs that affect choice of diet, to include Hindu, Muslim, Jewish</li> </ul> </li> <li><b>how nutrients work together</b> in the body, e.g. complementary actions <b>basal metabolic rate (BMR) and physical activity level (PAL)</b> and their importance in determining energy requirements.</li> </ol> <p>Learners must have a sound awareness of <b>other common dietary issues</b> including coronary heart disease (CHD), cholesterol and liver disease.</p> |  |  |
| <p><b>Diet and Good Health:</b><br/>Plan balanced diets</p>                | <p>Learners should be able to use their knowledge of nutrition and current nutritional guidelines to:</p> <ol style="list-style-type: none"> <li>recommend guidelines for a healthy diet</li> <li>identify how nutritional needs change due to age, life style choices and state of health</li> <li>plan a balanced diet for: <ul style="list-style-type: none"> <li>(i) a range of life-stages: toddlers, teenagers, early, middle and late adulthood</li> <li>(ii) individuals with specific dietary needs or nutritional deficiencies to include coeliac</li> </ul> </li> </ol>   |  |  |

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|  | <p>disease; diabetes (type 2 diabetes only to be considered), dental caries; iron deficiency anaemia; obesity; cardiovascular disease (CVD) calcium deficiencies to include bone health; nut or lactose (dairy) intolerances</p> <p>(iii) individuals with specific lifestyle needs to include vegetarians: lacto-ovo, lacto, vegan, and those with religious beliefs that affect choice of diet, to include Hindu, Muslim, Jewish</p> <p>(iv) Individuals requiring high-energy needs as a result of occupation or activity involvement.</p> <p>Learners must have a sound awareness of <b>other common dietary issues</b> including coronary heart disease (CHD), cholesterol and liver disease.</p>   |  |  |
| <p><b>Diet and Good Health:</b></p> <p>Calculate energy and nutritional values of recipes, meals and diets</p> | <p>Learners should be able to:</p> <ol style="list-style-type: none"> <li>1. calculate the energy and main macronutrients and micronutrients in the following: <ol style="list-style-type: none"> <li>(i) a recipe</li> <li>(ii) a meal</li> <li>(iii) an individual's existing diet over a period of time.</li> </ol> </li> <li>2. use nutritional information/data to determine why, when and how to make changes to: <ol style="list-style-type: none"> <li>(i) a recipe, e.g. increase dietary fibre (NSP) content</li> <li>(ii) a menu, e.g. reduce saturated fat content</li> <li>(iii) a diet, e.g. to increase energy intake prior to a sporting activity or to meet the new recommendations for free sugars</li> </ol> </li> <li>3. show how an understanding of energy balance can be used to maintain a healthy body weight throughout life.</li> </ol> |  |  |
| <p><b>The Science of Food:</b></p> <p>The effect of cooking on food</p>  | <p>knowledge and understanding of how preparation and cooking affects the sensory and nutritional properties of food. To include:</p> <ol style="list-style-type: none"> <li>1. why food is cooked, to include, digestion, taste, texture, appearance and to avoid food contamination</li> <li>2. how heat is transferred to food through conduction, convection and radiation and how and why the production of some dishes rely on more than one method of heat transference.</li> </ol>   |  |  |

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|   | <p>3. how selection of appropriate cooking methods can:</p> <p>(i) conserve or modify nutritive value, e.g. steaming of green vegetables</p> <p>(ii) improve palatability e.g. physical denaturation of protein</p> <p>4. the positive use of micro-organisms such as bacteria in dairy products: cheese, yoghurt; meat products: salami, chorizo and fermentation of sugar in drinks.</p> <p>Learners need knowledge and understanding related to:</p> <p>1. the working characteristics, functional and chemical properties of ingredients to achieve a particular result:</p> <p>(i) <b>carbohydrates</b> – gelatinisation, dextrinization</p> <p>(ii) <b>fats/oils</b> – shortening, aeration, plasticity and emulsification</p> <p>(iii) <b>protein</b> – coagulation, foam formation, gluten formation, denaturation (physical, heat and acid)</p> <p>(iv) <b>fruit/vegetables</b> – enzymic browning, oxidisation</p> <p>2. reasons why particular results may not always be achieved, e.g. a sponge cake sinks, a sauce goes lumpy</p> <p>3. how to remedy situations when desired results may not be achieved in the first instance</p> |  |  |
| <p><b>The Science of Food:</b></p> <p>Food Spoilage</p> | <p>Learners should have an understanding of sound microbiological food safety principles when buying, storing, preparing and cooking food. To include:</p> <p>1. how to store foods correctly: refrigeration/freezing, dry/cold storage, appropriate packaging/covering of foods</p> <p>2.the importance of date-marks, labelling of food products to identify storage and preparation</p> <p>3.the growth conditions, ways of prevention and control methods for enzyme action, mould growth and yeast production</p> <p>4. the signs of food spoilage, including enzymic action, mould growth, yeast production and bacteria</p> <p>5.the role of temperature, pH, moisture and time in the control of bacteria</p>  |  |  |

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|   | <p>6.the types of bacterial cross-contamination and their prevention</p> <p>7. preservation/keeping foods for longer, e.g. jam making, pickling, freezing, bottling, vacuum packing.</p> <p>Learners should know and understand the signs, symptoms, risks and consequences of inadequate/unacceptable food hygiene practices. To include:</p> <p>1. signs, symptoms of food poisoning to include poisoning caused by salmonella, campylobacter, e-coli, staphylococcus</p> <p>2. consequences of mishandling of food on food wastage: including the effect on the environment and the financial implications of waste.</p>  |  |  |
| <p><b>Where food comes from:</b></p> <p>Food provenance</p> | <p>Learners must know and understand:</p> <p>1. food origins to include where and how foods are grown, reared, or caught</p> <p>2. food miles, impact on the carbon footprint, buying foods locally</p> <p>3. impact of packaging on the environment versus the value of packaging</p> <p>4. sustainability of food: the impact of food waste on the environment, local, global markets and communities, effect of food poverty.</p> <p>5. food security: access to safe sufficient food for all (World Health)</p> <p>6. the development of culinary traditions in British and international cuisine.</p> <p>7. the distinctive features, characteristics and eating patterns of 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 preparation and cooking methods or equipment, and presentation or serving techniques.</p> <p>8. traditional and modern variations of recipes to include variations of recipes to include changing use of food</p> |  |  |

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|   | <p>commodities, changes to nutritional guidelines, and use of modern cooking methods and or equipment</p> <p>9. meal structures: presentation of menus within different cultures</p>   |  |  |
| <p><b>Where does food come from:</b></p> <p>Food manufacturing</p>          | <p>Learners should have knowledge and understanding of:</p> <ol style="list-style-type: none"> <li>1. primary stages of processing and production to include point of origin, the transporting, cleaning and sorting of the raw food e.g. bags of fruit.</li> <li>2. secondary stages of processing and production to include how primary products are changed into other types of products, e.g. wheat to bread; milk to cheese and yoghurt; fruit to jams, jellies and juices.</li> <li>3. how processing affects the sensory and nutritional properties of ingredients e.g. cured meat products</li> <li>4. technological developments that claim to support better health and food production including fortification and modified foods</li> <li>5. the positive and negative effects of food modification on health and food production e.g. flavour intensifiers, stabilisers, preservatives, colourings, emulsifiers</li> <li>6. the ability of additives to produce the desired effect</li> </ol> |  |  |
| <p><b>Cooking and preparation:</b></p> <p>Factors affecting food choice</p> | <p>Learners must know and understand:</p> <ol style="list-style-type: none"> <li>1. how sensory perception guides the choices that people make, how taste receptors and olfactory systems work</li> <li>2. the sensory qualities of a range of foods and combinations and how to set up tasting panels for preference testing</li> <li>3. the range of factors that influence food choices, including, enjoyment, preferences, seasonality, costs, availability, time of day, activity, celebration or occasion and culture</li> <li>4. the choices that people make about certain foods according to religion, culture, ethical belief, medical reasons or personal choices</li> <li>5. how to make informed choices about food and drink to achieve a varied and balanced</li> </ol>   |  |  |

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|                                     | <p>diet, including awareness of portion sizes and costs</p> <p>6. how information about food is available to the consumer, including food labelling and marketing and how this influences food choice</p>  |  |  |
| <b>Developing recipes and meals</b> | <p>Learners must be able to develop recipes and meals to meet a specific nutritional need or lifestyle choice.</p> <p>Learners must:</p> <ol style="list-style-type: none"> <li>1. consider the influence of lifestyle and consumer choice when adapting or developing meals and recipes, to include: <ul style="list-style-type: none"> <li>(i) adaptations to recipes to address current dietary advice</li> <li>(ii) adaptations due to lifestyle patterns e.g. working parents needing dishes that are quick to prepare and cook</li> </ul> </li> <li>2. consider nutritional needs and food choices when selecting recipes, including when making decisions about the ingredients, processes, cooking methods, and portion sizes e.g. vegetarian alternatives</li> <li>3. develop the ability to review and make improvements to recipes by amending them to include the most appropriate ingredients, processes cooking methods, and portion sizes, e.g. low calorie diets</li> <li>4. manage the time and cost of recipes effectively use their testing and sensory evaluation skills, adjusting where needed, to improve the recipe during the preparation and cooking process, e.g. adjusting seasoning</li> <li>5. explain, justify and present their ideas about their chosen recipes and cooking methods to others</li> <li>6. make decisions about which techniques are appropriate in order to achieve their intended outcome, e.g. steaming instead of boiling</li> </ol> |  |  |

## REVISION

### Section A: Visual Stimuli

All questions in this section will be based on a series of photographs showing key points in making a specific product.



**Revise methods of making, proportions of ingredients and possible faults and causes of faults for:** whipping cream, choux pastry, bread, shortcrust pastry, flaky pastry, rough puff pastry, rubbed in cakes, creamed cakes, whisked sponges, melted cakes, all in one cakes, tomato sauce, roux sauce, setting a mixture, meringues.

### Methods of Revision

- **Flash cards** use flash cards to learn **KEY WORDS** remember marks are awarded for good use of technical language
- **Past papers** – complete sample papers and test questions in revision book/text book
- **Mindmaps** – use lesson powerpoints to create mind maps
- **CGP revision guide** for key points
- **CGP work book** for exam style questions
- **Illuminate online textbook** for exam technique advise

## EXAM ADVICE

- Use technical language and scientific terms
- Be specific – ie name specific vitamins rather than say “a good source of vitamins”
- Answer all the questions on the paper.
- Look at marks available for each answer
- Target marks – eg if a question is awarded four marks give at least two different points in your answer and give an example
- Do not leave the difficult questions to the end. When you make a point, always explain and give an example
- POINT → EXPLAIN → EXAMPLE