



WJEC GCSE
Food and Nutrition
3560QS
Summer 2022 examination

Unit 1	Principles of Food and Nutrition	Monday, 20 June 2022
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Advance Information

General information for students and teachers

This advance information provides the focus of the content of the Summer 2022 examination papers.

It does not apply to any other examination series.

It is intended to support revision.

It may be used at any time from the date of release.

It must not be taken into the examination.

Released: 7 February 2022

Subject information for students and teachers

Further information about adaptations to WJEC GCSE and GCE qualifications in 2022 is available at: <https://www.wjec.co.uk/home/summer-2022-adaptations/>.

This advance information covers Unit 1 only. There is no advance information for Unit 2 (NEA).

The following areas of content are suggested as key areas of focus for revision and final preparation, in relation to the Summer 2022 examination.

The following topic areas will be largely, although not exclusively, tested through the higher tariff questions.

Other subject content will be covered in the remaining questions.

The aim should still be to cover all specification content in teaching and learning.

Unit 1: Principles of food and nutrition

1. Food commodities	
For:	
<ul style="list-style-type: none">• milk, cheese and yoghurt	
Learners need to know and understand:	
<ul style="list-style-type: none">• the value of the commodity within the diet• features and characteristics of each commodity with reference to their correct storage to avoid food contamination• 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• the origins of each commodity	
2. Principles of nutrition	
Macronutrients and micronutrients	<ul style="list-style-type: none">• the definition of macronutrients and micronutrients in relation to human nutrition• the role of macronutrients and micronutrients in human nutrition <p>Macronutrients to include:</p> <ul style="list-style-type: none">(i) protein: essential and non-essential amino-acids in relation to nutritional requirements(ii) fats, oils and lipids: saturated fats, monounsaturated fat, polyunsaturated fats and essential fatty acids(iii) carbohydrates: monosaccharides, disaccharides and polysaccharides <p>Micronutrients to include:</p> <ul style="list-style-type: none">(i) fat soluble vitamins: vitamin A, and vitamin D water soluble vitamins: vitamin B1 thiamin, vitamin B2 riboflavin, vitamin B3 niacin, vitamin B12 cobalamin and vitamin B9 folic acid (folate) and vitamin C(ii) minerals: calcium, iron, potassium and magnesium(iii) trace elements, to include: iodine, fluoride

	<p>Plus the dietary value of: (i) dietary fibre (NSP) (ii) water</p>
3. Diet and good health	
<p>Energy requirements of individuals (and) Plan balanced diets</p>	<ul style="list-style-type: none"> • recommend guidelines for a healthy diet based on current/up-to-date strategies in Wales • identify how nutritional needs change due to age, lifestyle choices and state of health • plan a balanced diet for: <ul style="list-style-type: none"> (i) a range of life stages: babies, toddlers, teenagers, early, middle and late adulthood (to include pregnancy and lactation) (ii) 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>Calculate energy and nutritional values of recipes, meals and diets</p>	<ul style="list-style-type: none"> • calculate the energy and main macronutrients and micronutrients in: <ul style="list-style-type: none"> (iii) an individual's existing diet over a period of time • use nutritional information/data to determine why, when and how to make changes to: <ul style="list-style-type: none"> (iii) a diet • show how energy balance can be used to maintain a healthy body weight throughout life
4. The science of food	
<p>The effect of cooking on food</p>	<p>How preparation and cooking affect the sensory and nutritional properties of food:</p> <ul style="list-style-type: none"> • why food is cooked, to include: digestion, taste, texture, appearance and to avoid food contamination • how heat is transferred to food through conduction, convection and radiation and how and why the production of some dishes relies on more than one method of heat transference • how selection of appropriate cooking methods can: <ul style="list-style-type: none"> (i) conserve or modify nutritive value, e.g. steaming of green vegetables (ii) improve palatability, e.g. physical denaturation of protein • 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>Food spoilage</p>	<p>Microbiological food safety principles when buying, storing, preparing and cooking food:</p> <ul style="list-style-type: none"> • how to store foods correctly: refrigeration/freezing, dry/cold storage, appropriate packaging/covering of foods • the importance of date-marks, labelling of food products to identify storage and preparation

	<ul style="list-style-type: none"> the growth conditions, ways of prevention and control methods for enzyme action, mould growth and yeast production the signs of food spoilage, including enzymic action, mould growth, yeast production and bacteria the role of temperature, pH, moisture and time in the control of bacteria the types of bacterial cross-contamination and their prevention preservation/keeping foods for longer, e.g. jam making, pickling, freezing, bottling, vacuum packing <p>The signs, symptoms, risks and consequences of inadequate or unacceptable food hygiene practices:</p> <ul style="list-style-type: none"> signs, symptoms of food poisoning to include poisoning caused by salmonella, campylobacter, e-coli, staphylococcus
5. Where food comes from	
Food provenance	<ul style="list-style-type: none"> the impact of packaging on the environment versus the value of packaging
Food manufacturing	<ul style="list-style-type: none"> 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
6. Cooking and food preparation	
Factors affecting food choice	<ul style="list-style-type: none"> the range of factors that influence food choices, including enjoyment, preferences, seasonality, costs, availability, time of day, activity, celebration or occasion and culture the choices that people make about certain foods according to religion, culture, ethical belief, medical reasons or personal choices how to make informed choices about food and drink to achieve a varied and balanced diet, including awareness of portion sizes and costs how information about food is available to the consumer, including food labelling and marketing and how this influences food choice food poverty in Wales the most up-to-date Food and Nutrition strategy for Wales

End of advance information