

<i>Subject content</i>	<i>Boardworks presentations</i>
<b>Unit 1: Written Paper</b>	
Materials and Components	
<b>Understand the functional properties of food</b>	
Investigate the functional properties of: starch, sugar, protein and fat.	Properties of Food
Examine the use of: starch to thicken, gel; sugar to flavour, colour, aerate and caramelize; protein to aerate and coagulate; fats to shorten, emulsify.	Properties of Food Structures of Food
Understand how different functional properties of foods/ingredients affect finished products and achieve desired outcomes through product appraisal, investigations and food preparation.	Properties of Food Structures of Food Research
Investigate and understand: gelatinisation: sauce making, elasticity: bread making, shortening: pastry making, aeration: raising agents, cake making, emulsification: salad dressings, coagulation: setting of egg mixtures, flavouring: sweetening agents in desserts/flavouring and herbs and spices in savory products e.g. pasta, colouring: fats used in pastry making, setting: gelatine in mousses, fermentation: bread production.	Properties of Food Structures of Food Research Additives
Understand the terms: binding, bulking, coating, enrobing, enriching, finishing techniques, glazing, palatability, plasticity, sealing, shaping, tenderizing.	Properties of Food Structures of Food

## AQA GCSE Design and Technology: Food Technology (2010)

<b>Subject content</b>	<b>Boardworks presentations</b>
<b>Understand the nutritional properties of food</b>	
Examine the nutritional properties of ingredients/ food products. An understanding of the nutritional characteristics of the main nutrients: proteins, fats, carbohydrates – sugars and starches, vitamins and minerals – Vitamins A, B, C and D, Calcium, Iron.	Nutrition
Have knowledge of nutritional advice. Interpret and apply current nutritional/healthy eating guidelines, e.g. apply the recommendations of the 'Eat well plate', 5 a day, high fibre (NSP).	Nutrition
Be able to apply the nutritional advice when analysing existing food products. Understand that diets with deficiencies or excesses of particular nutrients may lead to health related problems.	Nutrition Special Diets
Investigate nutritional and dietary needs of different target groups: including vegetarians, diabetics, coeliacs, calorie controlled, those with nut allergies and lactose intolerance.	Nutrition Special Diets
<b>The effects of combining different ingredients and the interaction of foods during preparation and cooking</b>	
Select and combine foods/ingredients to achieve different textures, finishes, shapes, size and appearance.	Designing and Developing Ideas Structures of Food Properties of Food
Understand how the following food structures are formed: solutions, suspensions, emulsions, and gels. Through practical activities, develop different types of salad dressings, sauces and cold desserts.	Designing and Developing Ideas Structures of Food Properties of Food

## AQA GCSE Design and Technology: Food Technology (2010)

<b>Subject content</b>	<b>Boardworks presentations</b>
Investigate, through product development, the use of different ingredients/quantities/methods of making.	Food Production Systems Cooking Choices
<b>The importance of appropriate proportions on the structure, shape and volume of mixtures.</b>	
Demonstrate how accurate measurement, ratio and proportioning affect preparation, making and shaping of products to designated criteria to achieve acceptable outcomes.	Cooking Choices
Investigate the adaptation of amounts in mixtures: cakes, pastry, sauces, bread, biscuits.	Cooking Choices Food Production Systems
Through experiment, investigation and product development understand the importance of using appropriate amounts and types of ingredients and processing techniques to meet designated criteria and tolerances.	Designing and Developing Ideas Cooking Choices Research
<b>The effects of acids and alkalis</b>	
Understand factors that enable food products to be developed to designated criteria: i.e. colour, texture, storage and product profile.	Designing and Developing Ideas Sensory Analysis
Evaluate products and assess how the working characteristics of acids and alkalis have affected the final product.	Evaluation Techniques

## AQA GCSE Design and Technology: Food Technology (2010)

<b>Subject content</b>	<b>Boardworks presentations</b>
<b>Understand the use of standard components in food processing</b>	
Understand the advantages and disadvantages of standard components in food production.	Food Production Systems Quality Control
Explore the use of standard components: frozen/chilled pastry, decorations (ready made icing, marzipan etc.), pizza bases, ready-made fillings/sauces/cake mixes/bread mixes.	Food Production Systems Quality Control
<b>Demonstrate competence in a range of practical food skills/methods/processes to produce quality outcomes</b>	
Match materials and processes to produce products with good organoleptic qualities that are finished/presented to a high standard.	Sensory Analysis Quality Control
Apply a range of processing techniques to produce food products.	Cooking Choices
Present food products with the consideration of the importance of: colour, texture, flavour, shape, temperature and time, users needs, finishing techniques.	Sensory Analysis Quality Control Also covered in KS3 Food Technology
Through the making of products and meals, demonstrate a wide variety of cooking skills.	Properties of Food Structures of Food Cooking Choices Also covered in KS3 Food Technology

## AQA GCSE Design and Technology: Food Technology (2010)

<b>Subject content</b>	<b>Boardworks presentations</b>
<b>Design and market influences</b>	
Candidates should be able to apply knowledge and understanding of the working characteristics of food together with processing techniques in order to design and make a food product.	Designing and Developing Ideas Research Sensory Analysis
Candidates should through evaluation of existing food products apply knowledge of nutrition, functions of ingredients and consumer preferences to identify how existing products/menu ideas are selected to achieve a balanced and varied diet which meets health, dietary, socio economic and cultural/religious needs of different groups within our society.	Designing and Developing Ideas Nutrition Special Diets Social and Economic Issues
<b>Investigate the design opportunities</b>	
Use product analysis, compare a range of existing packaged products to determine how the types, proportions and functions of ingredients have contributed to a product's overall characteristics and its ability to meet a specific need.	Sensory Analysis Research Evaluation Techniques
Identify physical, nutritional and sensory characteristics in existing products in order to develop design criteria and generate their own ideas.	Sensory Analysis Research Designing and Developing Ideas
Find out customer views and preferences for a range of different products using an appropriate range of methods including ICT, e.g. interview, questionnaire, product appraisal.	Research Evaluation Techniques

## AQA GCSE Design and Technology: Food Technology (2010)

<i>Subject content</i>	<i>Boardworks presentations</i>
<b>Identify and use stages in the development of a food product prototype</b>	
Examine and analyse design briefs to identify the type of information required to generate design criteria and design ideas.	Designing and Developing Ideas Research Evaluation Techniques
Produce a concise summary of relevant research information taking into account prior knowledge.	Research
Produce a list of very general design criteria which reflect research and analysis.	Research Designing and Developing Ideas
Using existing recipes, generate a wide range of ideas for food products which meet the design criteria. Present annotated ideas in an appropriate form e.g. drawings, pictures, descriptions, using ICT.	Designing and Developing Ideas Research
Where appropriate, use nutritional analysis software to model ideas prior to making.	
Carry out product formulation using a range of ingredients, techniques, methods, finishes.	Research Designing and Developing Ideas
Evaluate, test and refine ideas as necessary and through evaluation against the criteria, select an idea for development.	Research Evaluation Techniques

## AQA GCSE Design and Technology: Food Technology (2010)

<b>Subject content</b>	<b>Boardworks presentations</b>
Draw up a product specification.	Evaluation Techniques
<b>Product prototype development</b>	
Identify ways in which a product could be developed.	Research Designing and Developing Ideas
Carry out modification and reformulation by changing the type, ratio and proportions of ingredients to meet nutritional/sensory aspects of the specification.	Research Designing and Developing Ideas Sensory Analysis
Work with small quantities to identify the impact of the functions of ingredients on an outcome.	
Use investigations and testing to trial different shapes, sizes, finishes to achieve a high quality outcome which meets the specification.	Sensory Analysis
Consider different storage methods (chilling, freezing, re-heating) wherever appropriate to identify the impact on the sensory, structural and aesthetic properties of an outcome.	Preservation Sensory Analysis
Demonstrate how availability of ingredients, equipment and processes can alter or determine an end product.	Evaluation Techniques
Use a range of sensory testing methods to carry out rigorous sensory analysis at each stage of development (product profile tests, ranking and rating tests, difference tests). Identify the impact of each development against the product specification and on the product's acceptability.	Sensory Analysis

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<b>Subject content</b>	<b>Boardworks presentations</b>
Produce a manufacturing specification which lists the information a manufacturer would need in order to produce the prototype in quantity.	Evaluation Techniques
Understand why and identify where standard components would be used in the manufacture of the product.	Evaluation Techniques Quality Control
Produce a production plan for the prototype in a test kitchen identifying quality control checks.	Evaluation Techniques
<b>Labelling, packaging, product information and codes of practice</b>	
Use current labelling requirements to read, understand and use information on packaging and food labels and apply these to their own products.	Labelling and Packaging
Understand that legislation governs the statutory and non-statutory content and layout for food labels.	Labelling and Packaging
Understand and demonstrate the requirements for conveying product information to the consumer including, where necessary, information about accompaniments.	Labelling and Packaging
Use nutritional software to analyse the nutritional content of the final prototype.	
Understand the reasons why food may be packaged in different forms to extend shelf life.	Preservation

## AQA GCSE Design and Technology: Food Technology (2010)

<b>Subject content</b>	<b>Boardworks presentations</b>
<b>Social, economic, cultural and environmental considerations</b>	
Consider packaging materials used within food production and their impact on cost and the environment.	Labelling and Packaging
Understand how multi-cultural factors have influenced food production.	Social and Economic Issues Special Diets
Consider the use of scarce resources, transport costs, sustainability, quality, religious and cultural preferences, genetically modified foods, organic and free range foods, Fairtrade, Farm Assured, on food production and the environment.	Social and Economic Issues
Assess the implication of food issues in product development, e.g. food miles, availability of seasonal foods.	Social and Economic Issues
<b>Processes and manufacture</b>	
<b>The use, need and effect of additives</b>	
Understand the use of natural and artificial additives in food products.	Additives

<b>Subject content</b>	<b>Boardworks presentations</b>
<b>The impact and effect of using a range of different equipment to produce food items of quality and consistency</b>	
Demonstrate safe and hygienic use of a range of hand, mechanical and electrical equipment to ensure quality, e.g. cutters for uniformity of biscuits, temperature probe, e.g. cooking of high risk foods, consistency of outcome, e.g. food processor for slicing vegetables reduce time and effort: e.g. hand blender for soup, dough hook for bread.	Cooking Choices Hygiene
Apply knowledge and understanding to select the most appropriate equipment and healthier cooking methods for food outcomes: e.g. steamers for vegetables, microwave for retention of vitamins.	Cooking Choices
Match equipment to desired outcomes within the preparation of ingredients and the production of different mixtures such as cakes, pastries, breads, sauces, decorations, purees, etc.	Cooking Choices
<b>Storage of Food and Food Products</b>	
Understand the need for different types of equipment and temperatures for the storage of food including chilling (0–5°C), freezing (-18°C), re-heating (72°C) and ambient conditions (room temperature).	Hygiene
Explain and understand the importance of critical storage temperatures.	Hygiene
Use and understand different ways of monitoring temperature: e.g. the purpose and use of temperature probes, thermometers.	Hygiene

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<b>Subject content</b>	<b>Boardworks presentations</b>
Understand the reasons for changes which occur in ingredients and foods during their preparation and storage, e.g. investigate the effects of chilling and freezing on different foods.	Hygiene Preservation
Understand the need for and apply appropriate hygiene and safety procedures: to ensure safe food handling techniques at all stages from raw material to product/outcome.	Hygiene
Consider food safety and hygiene when purchasing, storing, preparing, cooking and serving food: cross contamination, use by date, best before date, high risk food, cross contamination, danger zone.	Hygiene Risk Assessment and HACCP
Understand the risks posed by physical, chemical and biological contamination, e.g. symptoms of food poisoning.	Hygiene Risk Assessment and HACCP
Have an awareness of the reasons why food may be packaged in different forms to extend shelf life, including the use of new technologies such as nanotechnology;).	Preservation
<b>Manufacturing/Large Scale Production Requirements</b>	
Understand different commercial methods of food production including: one off, batch, mass, continuous flow.	Food Production Systems
Show an understanding of how CAD and CAM can be used within food manufacturing.	
Explore/examine how quality control checks are used to produce consistent food products;	Quality Control

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<i><b>Subject content</b></i>	<i><b>Boardworks presentations</b></i>
Examine how control checks can prevent problems in food production.	Quality Control
<b>Technological Developments</b>	
Understand the advantages and disadvantages of Genetically Modified Foods to food producers and consumers;	Smart and Modern Ingredients
Explore, understand and assess the impact of the use of modified starches and functional foods to food producers and consumers.	Smart and Modern Ingredients
Have an awareness of how new technologies are used to produce new foods and ingredients, including new foods and be aware of consumer concerns around these developments, including the views of the European Union.	Smart and Modern Ingredients

<b>Stage</b>	<b>Subject content</b>	<b>Boardworks presentations</b>
	<b>Unit 1 Creative Design and Make Activities</b>	
<b>1</b>	<b>Investigate</b>	
1.1	Analysing the brief	
1.2	Research	Research
1.3	Specification	Evaluation Techniques
<b>2</b>	<b>Design</b>	
2.1	Initial ideas	Designing and Developing Ideas
2.2	Review	Evaluation Techniques
2.3	Communication	Designing and Developing Ideas
<b>3</b>	<b>Develop</b>	
3.1	Development	Designing and Developing Ideas Evaluation Techniques
3.2	Final design	Designing and Developing Ideas Evaluation Techniques
<b>4</b>	<b>Plan</b>	
4.1	Production plan	
<b>5</b>	<b>Make</b>	

<b>Stage/ Topic</b>	<b>Subject content</b>	<b>Boardworks presentations</b>
5.1	Quality of manufacture	Quality Control
5.2	Quality of outcome	Quality Control Evaluation Techniques
5.3	Health and safety	Hygiene Risk Assessment and HACCP
<b>6</b>	<b>Test and Evaluate</b>	
6.1	Testing and evaluating	Evaluation Techniques
	<b>Unit 2 Knowledge and Understanding of Food Technology</b>	
<b>1</b>	<b>Nutrition</b>	
1.1	Fats	Nutrition
1.2	Carbohydrates	Nutrition
1.3	Protein	Nutrition
1.4	Vitamins	Nutrition
1.5	Minerals	Nutrition
1.6	Energy balance	Nutrition
1.7	Dietary guidelines	Nutrition

<b>Stage</b>	<b>Subject content</b>	<b>Boardworks presentations</b>
1.8	Government recommendations	Nutrition
1.9	Individual nutritional requirements	Nutrition Special Diets
1.10	Special diets	Special Diets
1.11	Ethnic and religious groups	Special Diets
<b>2</b>	<b>Primary and Secondary Foods</b>	
2.1	Primary foods	Properties of Foods
2.2	Functional properties and working characteristics	Structures of Food
2.3	Secondary foods	Properties of Foods Structures of Food
<b>3</b>	<b>Preservation and processing</b>	
3.1	Preservation	Hygiene Risk Assessment and HACCP
3.2	Preservation methods	Preservation
3.3	Processing	Preservation
3.4	Food preparation techniques – home	Covered in KS3

<b>Stage</b>	<b>Subject content</b>	<b>Boardworks presentations</b>
4.7	Packaging	Labelling and Packaging
4.8	Labelling	Labelling and Packaging
<b>5</b>	<b>Analysing products</b>	
5.1	Importance of analysing products	Designing and Developing Ideas
5.2	How to analyse food products	Research Designing and Developing Ideas Evaluation Techniques

<b>Subject content</b>	<b>Boardworks presentations</b>
<b>Unit A521: Introduction to designing and making</b>	
Demonstrate cultural understanding	Social and Economic Issues
Demonstrate creativity	Research Evaluation Techniques Designing and Developing Ideas
Demonstrate designing skills	Research Evaluation Techniques Designing and Developing Ideas
Demonstrate good making skills	Cooking Choices Risk Assessment and HACCP Hygiene
Demonstrate critical evaluation skills	Evaluation Techniques Sensory Analysis
<b>Unit A522: Sustainable design</b>	
The 6 Rs	Social and Economic Issues Labelling and Packing Further Content in KS3 Product
Product analysis and the design of products	Social and Economic Issues Labelling and Packing Food Production Systems Quality Control

<b>Subject content</b>	<b>Boardworks presentations</b>
<b>Unit A523: Making quality products</b>	
Develop and demonstrate designing skills	Research Evaluation Techniques Designing and Developing Ideas
Demonstrate good making/workshop skills	Cooking Choices Risk Assessment and HACCP Hygiene Properties of Food Structures of Food
Demonstrate designing skills	Research Evaluation Techniques Designing and Developing Ideas
Demonstrate critical evaluation skills	Evaluation Techniques Sensory Analysis
<b>Unit A524: Technical aspects of designing and making</b>	
Design process	Research Evaluation Techniques Designing and Developing Ideas
Product development	Cooking Choices Properties of Food Structures of Food

<b>Subject content</b>	<b>Boardworks presentations</b>
Product planning	Evaluation Techniques Sensory Analysis
Diet and nutrition	Nutrition Special Diets Properties of Food Structures of Food Social and Economic Issues
Processes and skills	Cooking Choices Properties of Food Structures of Food
Tools and equipment	Cooking Choices Risk Assessment and HACCP
Principles of preservation and extending shelf life	Preservation Labelling and Packaging
Health and safety	Hygiene Risk Assessment and HACCP
Industrial production	Quality Control Food Production Systems
Product analysis	Research Evaluation Techniques Sensory Analysis Nutrition Social and Economic Issues