



KS4

Food Preparation and Nutrition



Exam Details:

Exam Board: AQA

Exam consists of one paper:

Paper 1: 50% (100marks)

(1hr 45mins)

Protein	I must know and understand	Red	Yellow	Green
	The functions			
	Main sources			
	Effects of deficiency (not enough)			
	Effects of excess (too much)			
	Related dietary reference values			

Fats	I must know and understand	Red	Yellow	Green
	The functions			
	Main sources			
	Effects of deficiency (not enough)			
	Effects of excess (too much)			
	Related dietary reference values			

Carbohydrates	I must know and understand	Red	Yellow	Green
	The functions			
	Main sources			
	Effects of deficiency (not enough)			
	Effects of excess (too much)			
	Related dietary reference values			

Factors which may influence food choice	I must know and understand	Red	Yellow	Green
	Physical activity level			
	Celebration			
	Cost of food			
	Preferences			
	Enjoyment			
	Food availability			
	Healthy eating			
	Income			
	Lifestyle			
	Seasonality			
	Time of day			
	Time to prepare and cook			
	Be able to cost recipes and make modifications			

Food safety in preparing, cooking and serving food	I must know and understand	Red	Yellow	Green
	Personal hygiene			
	Clean work surfaces			
	Separate raw and cooked foods			
	Correct cooking times			
	Temperature control			
	Care with high risk foods			
	Use of food temperature probes			

Foods from British tradition and 2 different cuisines	I must know and understand	Red	Yellow	Green
	Distinctive features and characteristics of cooking			
	Equipment and cooking methods used			
	Eating patterns			
	Presentation styles			
	Traditional and modern variations of recipes			

Sensory evaluation	I must know and understand	Red	Yellow	Green
	Preference tests: paired preference, hedonic			
	Discrimination tests: triangle			
	Grading tests: ranking, rating and profiling			
	How to set up a taste panel			
	Controlled conditions for sensory testing			
	Evaluating how senses guide			
	Evaluating a wide range of ingredients and food from Britain and other countries			
	How to test sensory qualities of a wide range of foods			

Food production: Primary and secondary stages of processing and production and how processing affects the sensory and nutritional properties of ingredients	I must know and understand	Red	Yellow	Green
	Primary processing related to the rearing, fishing, growing, harvesting and cleaning of the raw food material			
	Secondary processing relating to how the raw primary ingredients are processed to			
	produce a food product			
	Loss of vitamins through heating and drying			
	The effect of heating and drying on the sensory characteristics of milk			

Technological developments to support better health and food	I must know and understand	Red	Yellow	Green
	Cholesterol lowering of spreads			
	Health benefits of fortification			
	Thiamin, niacin, calcium and iron added to white bread			
	Folic acid and iron added to breakfast cereals			
	Vitamins A and D added to fats and low fat spreads			
	Positive and negative aspects of additives			
	Positive and negative aspects of Genetically Modified foods			

Function and chemical properties of Fats and Oils: Shortening Aeration Plasticity Emulsification	I must know and understand			
	Scientific principles underlying these processes when preparing and cooking food			

Function and chemical properties of fruit and vegetables: Enzymic browning Oxidation	I must know and understand			
	Scientific principles underlying these processes when preparing and cooking food			

Function and chemical properties of raising agents: Chemical Mechanical Steam	I must know and understand			
	Scientific principles underlying these processes when preparing and cooking food			

Vitamins – Fat soluble <ul style="list-style-type: none"> • A • D • E • K 	I must know and understand			
	The functions			
	Main sources			
	Effects of deficiency (not enough)			
	Effects of excess (too much)			

Function and chemical properties of Carbohydrates: Gelatinisation Dextrinisation Caramelisation	I must know and understand			
	Scientific principles underlying these processes when preparing and cooking food			

Function and chemical properties of Carbohydrates: Gelatinisation Dextrinisation Caramelisation	I must know and understand			
	The working characteristics, functional and chemical properties of proteins			

Vitamins – Water soluble <ul style="list-style-type: none"> • B • C 	I must know and understand			
	The functions			
	Main sources			
	Effects of deficiency (not enough)			
	Effects of excess (too much)			
	Related dietary reference values			
	How preparation and cooking affects nutritional properties of food.			
Vitamins – antioxidant functions <ul style="list-style-type: none"> • A • C • E 	I must know and understand			
	The role of antioxidants in protecting cells from damage.			

Food choices related to religion, culture, ethical and moral beliefs and medical conditions	I must know and understand			
	Food choice linked to religious teachings			
	Food choice linked to ethical and moral beliefs			
	Food choice linked to food intolerances			

How food labelling and marketing influences food choice.	I must know and understand			
	Mandatory information included on packaging			
	Non mandatory information			
	How to interpret labelling			
	How marketing can influence choice			

Food choices related to religion, culture, ethical and moral beliefs and medical conditions	I must know and understand			
	Food choice linked to religious teachings			
	Food choice linked to ethical and moral beliefs			
	Food choice linked to food intolerances			

Minerals	I must know and understand			
	The functions			
	Main sources			
	Effects of deficiency (not enough)			
	Effects of excess (too much)			
	Related dietary reference values			
Water	I must know and understand			
	Function of water to eliminate waste from body			
	Function of water to cool the body			
	Function of water to aid digestion			
	How water is lost from the body			
	Occasions when extra fluids are needed			
Where and how ingredients are grown, reared and caught	I must know and understand			
	Grown ingredients: fruit, vegetables, cereals			
	Reared ingredients: meat and poultry			
	Caught ingredients: fish			
	Organic and conventional farming			
	Free range production			
	Intensive farming			
	Sustainable fishing			
	Local produced foods			
	Seasonal foods			
Environmental issues associated with food	I must know and understand			
	Seasonal foods			
	Sustainability eg fishing			
	Transportation			
	Organic foods			
	Reasons for buying food locally			
	Food waste in the home/production/retailers			
	Environment issues relating to packaging			
	Carbon footprint			
Impact of food on local and global markets and communities	I must know and understand			
	Climate change			
	Global warming			
	Sustainability of food sources			
	Insufficient land for growing food			
	Availability of food			
	Fairtrade			
	Problems of drought and flooding			
	Genetically Modified foods			
	Food waste			

Making informed choices for a varied and healthy diet	I must know and understand			
	Guidelines for healthy eating – Eatwell Guide			
	Nutritional needs at different life stages			
	How to plan a balanced meal for specific dietary needs			
Energy needs	I must know and understand			
	Factors which affect basal metabolic rate			
	The percentage of recommended energy sources			
	Protein 15%			
	Fat 35%			
How to carry out nutritional analysis	I must know and understand			
	How to use current nutritional information and data to calculate energy and nutritional values			
	Food tables			
	Nutritional analysis software			
Diet, nutrition and health	I must know and understand			
	Obesity			
	Cardiovascular disease			
	High blood pressure			
	Bone health			
	Dental health			
	Iron deficiency anaemia			
	Type 2 diabetes			

Foods from British tradition and 2 different cuisines	I must know and understand			
	Distinctive features and characteristics of cooking			
	Equipment and cooking methods used			
	Eating patterns			
	Presentation styles			
	Traditional and modern variations of recipes			
Microorganisms and enzymes	I must know and understand			
	Growth conditions for microorganisms			
	Control of microorganisms growth			
	High risk foods			
	Control of enzymic action			
Signs of food spoilage	I must know and understand			
	Enzymic action			
	Mould growth			
	Yeast action on fruits			
Microorganisms in the production of food	I must know and understand			
	Mould in the production of blue cheese			
	Yeasts in bread			
	Bacteria in yoghurt and cheese production			
Bacterial contamination	I must know and understand			
	From other contaminated foods			
	Work surfaces and equipment			
	The people cooking			
	Pests			
	Waste food and rubbish			
	Campylobacter			
	E-coli			
	Salmonella			
	Listeria			
Buying and storing food	I must know and understand			
	Temperature control			
	Ambient storage			
	Temperature danger zone			
	Correct use of fridges and freezers			
	Date marks			
	"Best before" and "Use by" dates			
	Covering foods			

Why is food cooked and how heat is transferred	I must know and understand	Red	Yellow	Green
	Make food safe to eat			
	Develop flavours			
	Improve texture			
	Improve shelf life			
	Give variety to diet			
	Improve colour , flavour, texture and smell			
	Conduction			
	Convection			
	Radiation			

Selecting appropriate cooking methods	I must know and understand	Red	Yellow	Green
	Select appropriate cooking and preparation methods			
	Can conserve or modify nutritive value			
Function and chemical properties of Protein: Protein denaturation Protein coagulation Gluten formation Foam formation	I must know and understand	Red	Yellow	Green
	Scientific principles underlying these processes when preparing and cooking food			
	The working characteristics, functional and chemical properties of proteins			