SUBJECT: Food Preparation and Nutrition	EXAM BOARD AND CODE: OCR J309
NUMBER OF PAPERS: 1	LENGTH OF PAPERS: 1 PAPER (50% of Total marks) 90 MINUTES
EQUIPMENT REQUIRED Black pen (and spare)	WEBSITE LINK: http://www.ocr.org.uk/Images/234806-specification-accredited-gcse-food-preparation-and-nutrition-j309.pdf

Topics to be revised

Section A:

The major commodity groups

- Bread, rice, potatoes, pasta and other starchy foods: Bread, rice, potatoes, pasta, flour and cereals (including wheat, oats, maize, barley, rye)
- Fruit and vegetables: Fresh, frozen, dried, canned and juiced fruit and vegetables
- Milk and dairy foods: Milk, cream, cheese and yoghurt
- Meat, fish, eggs, beans and other non-dairy sources of protein (beans, nuts, seeds and alternative protein foods (Quorn®, soya: textured vegetable protein TVP®, tofu))
- Foods and drinks high in fat and/or sugar: Butter, margarine, spreads, plant oils, sugar and syrup.

The relationship between diet and health

- The importance of a healthy diet
- Making a balanced food choice using commodity groups
- The government's guidelines for a healthy diet: The application of the eight tips for healthy eating
- Major diet-related health issues: Diet-related diseases and conditions: obesity (weight loss and gain), cardiovascular, coronary heart disease (CHD), diabetes, diverticulitis, bone health (osteoporosis), dental health, anaemia and high blood pressure

Nutritional and dietary needs of different groups of people

- Dietary needs for different stages of life: Balanced combinations of food, nutrients and correct portion sizes for babies, toddlers, pre-school children, school-aged children, adolescents, adults, older people, pregnant and lactating women
- Food allergies and intolerances: Foods that may cause an allergic reaction and Food intolerance: lactose and gluten (coeliac)
- The dietary reference values (DRVs)
- Macronutrients and micronutrients
- Calculation of nutritional values

Nutritional needs when selecting recipes for different groups of people

- Modifying recipes and meals to follow current dietary guidelines
- Altering or substituting ingredients, changing the method of cooking or process and changing the portion size

Energy balance

- The relationship between food intake and physical activity and how to maintain a healthy body weight throughout life
- How to calculate energy values and the main sources of energy in the diet
- The main factors that influence an individual's energy requirements

Macro and Micro Nutrients

You should be able to state types, sources, functions and deficiency of the following:

- Protein: High biological value (HBV) and low biological value (LBV)
- Fat: fats and oils (saturated, unsaturated and polyunsaturated)

- Carbohydrates: Sugar: monosaccharides, disaccharides, starch: complex carbohydrates and fibre
- Vitamins: Fat soluble vitamins: A (retinol and carotene), D, E, K and Water soluble vitamins: B1 (thiamine), B2 (riboflavin), B3 (niacin), B9 (Folate/Folic acid), B12 (cobalamin), C (ascorbic acid)
- Minerals: Calcium, iron, sodium, fluoride, iodine, phosphorus

Water

- Importance of water
- Sources

Nutritional content of the main commodity groups

- Bread, rice, potatoes, pasta and other starchy foods
- Fruit and vegetables
- Milk and dairy foods
- Meat, fish, eggs, beans and other non-dairy sources of protein
- Foods and drinks high in fat and/or sugar

Section B:

Food Provenance: Food source and supply

Food sources and how they are:

a) grown: cereals, sugars, fruits and vegetables

✓ Advantages and disadvantages of locally produced and seasonal foods

✓ Where and how they are grown: organic and non-organic farming

✓ Classification of fruits and vegetables

b) reared: meat and poultry ✓ Where and how they are reared: intensive farming methods, free-range products, rearing of the animals

✓ Classification of meat, poultry and game

c) caught: fish

✓ Where and how they are caught: sustainable fish supply

✓ Classification of fish

Food processing and production

- Primary stages of food processing
- Secondary stages of food processing and production
- Food processing and preserving methods: industrial and domestic

Food security

- The impact of food and food security on society, local and global markets and the environment
- Moral/ethical and environmental issues involved in food production

Technological developments to support better health and food production

- Fortification: The advantages and disadvantages of fortification
- Use of additives: Preservatives, colourings, flavourings and sweeteners, emulsifiers and stabilisers and thickeners, antioxidants
- New and emerging foods: Probiotics and prebiotics

Development of culinary traditions

- Recognise traditional ingredients
- Understand religious or cultural factors affecting the cuisine
- Understand traditional cooking methods, presentation and eating patterns
- Recognise how the traditional recipes have been adapted to suit today's society

Factors influencing food choice

- Personal, social and economic factors, medical reasons: Food choice can be affected by cost, enjoyment, preference, seasonality, availability, time of day, activity, celebration or occasion. Consumer information, food labelling, marketing
- Religious and cultural beliefs: Food choice can be affected by related beliefs of major religions: Buddhism, Hinduism, Islam, Judaism, Rastafarianism and Sikhism
- Ethical and moral beliefs: Vegetarians (lacto-ovo, lacto, ovo and vegans), animal welfare, local produce, organic food

Section C:

Food Science

- The reasons why food is cooked
- Heat transfer through cooking methods: Conduction, convection and radiation
- How preparation and cooking methods/processing
- Working characteristics and the functional and chemical properties of ingredient groups:

✓ Carbohydrates: gelatinisation, dextrinisation, caramelisation

✓ Fats/oils: shortening, aeration, plasticity, emulsification

✓ Protein: coagulation, foam formation, gluten formation, acid denature

✓ Fruit and vegetables: enzymic browning/oxidisation

✓ Raising agents: yeast, chemical agents, air and steam

Sensory properties

- The senses (organoleptic properties)
- Changes that happen when food is cooked: texture, appearance, colour, taste, sound and aroma
- Sensory systems: The importance of the senses of sight, taste, touch, smell and hearing and how they work when making food choices and the five basic tastes recognised by receptors (sweetness, sourness, bitterness, saltiness and umami)

Food safety

- Conditions and control for bacterial growth
- Growth conditions and control for mould growth and yeast production
- Signs of food spoilage
- Helpful properties of micro-organisms in food production
- Buying food
- Storing food
- Preparing food
- Cooking and serving food

Section D:

Skill requirements

- Knife skills
- Preparation and techniques
- Cooking methods
- Sauces
- Set a mixture
- Raising Agents
- Dough
- Judge and Manipulate sensory properties

Revision Tips

- Use the OCR revision guide

My Revision Notes OCR GCSE Food Preparation and Nutrition
ISBN No: 978-14718-8700-0
Useful websites:
OCR Food Preparation and Nutrition (9-1) - J309

Exam Hints

- Use key terminology accurately
- Attempt all questions, don't leave it blank
- Apply practical knowledge to answers – think about what you have previously cooked.
- Revise all 4 sections (A,B,C,D)
- Use both your folder/exercise book notes from Year 10 and Year 11.