**Old Buckenham High School | Year 11 – The Year Ahead |**

**AQA Food Preparation and Nutrition**

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| **Exam** | **Duration** | **Marks available** | **% of GCSE** | **Topics/ content** |
| Food Preparation and Nutrition | 1 hour 45 minutes | **100**Section A - multiple choice 20 marksSection B – 5 questions varying in styles and approach – 80 marks  | 50% | Food, Nutrition and HealthFood ScienceFood SafetyFood ChoiceFood Provenance |
| NEA 1 | 10 hours | 15 | 15% | Food investigation - Students write a report on their understanding of scientific principles that underpin the preparation and cooking of food. |
| NEA 2 | 20 hours | 35 | 35% | Food Preparation – Students plan, prepare, cook and present a three-course menu in three hours. |

*Before revising, students should complete personal learning checklists for their subjects. These ask students to RAG rate both the topics/ content of their exams and also the skills they are required to use. Doing this will help them to identify priorities and make effective use of their revision time.*

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| Topic (what I need to know) Food, Nutrition and Health | R | A | G |
| Eat Well Guide: Importance. How it is made up.Knowledge of each section:Fruit and Vegetables.Starchy Carbohydrates.Dairy and AlternativesProtein and Alternatives.Fats and Oils. |   |   |   |
| Dietary Guidelines for Healthy Eating: Reasons for:Eat Breakfast.Drinking 6-8 glasses of water.Cut down on saturated fat and sugary foods.Eating less than 6g of salt a day.Base meals on starchy carbohydrateEating lots of fruit and vegetables.Get active and be a healthy weight. |   |   |   |
| Macronutrients:Understand sources and functions of protein, carbohydrate and fatsSources – which foods provides the nutrient? E.g meat provides protein.Function - What does that nutrient do in the body? E.g. protein helps the body grow and repair. |   |   |   |
| Micronutrients:Understand sources and functions of fat soluble vitamins,A, D, E, and K |   |   |   |
| Micronutrients:Understand sources and functions of water soluble vitamins,B1, B2, B3, B9, B12, and Vitamin C |   |   |   |
| Micronutrients:Understand sources and functions of minerals, Calcium, Iron, Sodium, Fluoride, Iodine, Phosphorus |   |   |   |
| Other:Understand the contribution of water and dietary fibre to the diet. |  |  |  |
| Meal planning:Understand the nutritional requirements of different age groups. Understand how to plan meals for different diets:Lacto-ovo vegetarian, lacto vegetarian, vegan, coeliac, lactose intolerant |  |  |  |
| Nutritional Analysis:Be able to use a computer programme to carry out a nutritional analysis.Most foods contain more than one nutrient.Nutritional Analysis means finding out how much of each nutrient is in a quantity of food. |  |  |  |

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| **Topic (what I need to know) Food Science** | **R** | **A** | **G** |
| Cooking of food and heat transfer:Why is food cooked? How is heat transferred?Convection, Conduction and Radiation. |   |   |   |
| Cooking methods:Moist methods using water.Boiling,Braising,Poaching,Simmering,Steaming,Stewing. |  |  |  |
| Cooking methods:Methods using oil.Sauteing,Shallow pan frying,Roasting,Deep fat frying |  |  |  |
| Cooking methods:Dry heat transfer.Baking,Grilling,Toasting,Dry frying |  |  |  |
| Cooking methods:Microwaving |  |  |  |
| Protein:Denaturation (chains of amino acids are broken down) Coagulation (trapping air or water e.g. eggs scrambled, ,Gluten formation(Breadmaking).Foams (Whisking, meringues and swiss roll) |  |  |  |
| Carbohydrate:Sauce-making gelatinisation,Dextrinisation (browning of dry foods e.g. toast) and caramelisation in sugar (sugar plus liquid when heated turns to syrup, gets thicker and changes colour) |  |  |  |
| Fats:Plasticity (spreadable)Shortening (when rubbing-in)Aerate (trap air in cake-making)Emulsification(oil and water don’t mix, need an emulsifier e.g. egg yolk to help mix to an emulsification) |  |  |  |
| Raising Agents:Mechanical,Whisking in airFolding in airUsing steam.Beating eggsChemicalExamples of when raising agents are used.Baking powder,Bicarbonate of sodaCream of tarterBiologicalProduction of CO2 – through activation of Yeast |  |  |  |

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| **Topic (what I need to know) Food Safety** | **R** | **A** | **G** |
| Micro-organisms:Bacteria,What are they?Where do they come from?What they do to food?What makes them grow and multiply?Why they make food unsafe and unfit to eat? |   |   |   |
| Enzymes:What are they?Where do they come from?What they do to food?What makes them work?Why they change food and make it unfit to eat? |  |  |  |
| Moulds:What are they?Where do they come from?What do they do to food to make it unsafe and unfit to eat?What makes them grow and multiply |  |  |  |
| Yeasts:What are they?Where do they come from?What do they do to food to make it unsafe and unfit to eat?What makes them grow and multiply |  |  |  |
| Micro-organisms in Food Production:Yeast in Bread-makingBacteria in cheese and yogurt making |  |  |  |
| Bacteria and Food Poisoning:What is food poisoning?Symptoms of food poisoning.Why bacteria cause food poisoning.The most common type of bacteria that can cause food poisoning.High-risk foods.What makes bacteria grow. and multiply |  |  |  |
| Food Poisoning Bacteria:CampylobacterEscherichia ColiSalmonellaListeriaStaphylococcus Aureus. |  |  |  |
| Buying and Storing Food:Where food is boughtWhat to look for when buying food.What to look for when buying fresh fish and meat.Why should food be stored properly?Dry food storage.Refrigerated food storage.Frozen food storage. |  |  |  |
| Food Safety Rules and Cross-Contamination:Preventing cross-contaminationFood and Cooking:75c to kill bacteria.Temperature probe.Danger Zone 5 – 63c |  |  |  |

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| **Topic (what I need to know) Food Choice** | **R** | **A** | **G** |
| Factors affecting what we eat:Life StagePhysical Activity Level (PAL)Lifestyle,Income,Availability,Occasion,Eating habits. |   |   |   |
| Diet,Nutrition and Health:How what we eat affects our health.How diet related diseases develop. |  |  |  |
| Religious dietary laws:BuddhismChristianityHinduismIslamJudaismRastafariansim,Sikhism |  |  |  |
| Ethical and Moral Choices:Animal Welfare,Organic Food,Genetically Modified Food,Fairtrade,Buying local |  |  |  |
| Food Intolerance:Symptoms of food intolerance,Lactose Intolerance,Coeliac Disease (gluten intolerance) |  |  |  |
| Food Allergies:How does the body react if a person has a food allergy?Note the difference between allergy and intolerance.Allergens. |  |  |  |
| Food Labelling and Marketing:Reasons for food labelling.What must go on a food label.Traffic Light Food LabellingTypes of Food Marketing |  |  |  |
| British and International Cuisine:Influence of traditional cuisines around the world. How they affect food choice, ingredients, preparation. |  |  |  |
| Sensory Evaluation:How the senses influence food choice.Sensory testing methods.Avoiding bias in testing |  |  |  |

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| **Topic (what I need to know) Food Provenance and Production** | **R** | **A** | **G** |
| Food Provenance:How plant foods are grown - Intensive and Organic methods.How animal foods are reared – Intensive and Organic methods.Hunting and gathering food from the wild. |  |  |  |
| Genetically Modified:Food (GM)Pros and Cons of GM Food. |  |  |  |
| Seasonal Foods:What does seasonality mean?Advantages of using foods in season. |  |  |  |
| Environmental Issues associated with Food Production:Production.Processing and Manufacture.Packaging.Transportation. |  |  |  |
| The Carbon Footprint of Food:PackagingFood Waste |  |  |  |
| Food Security and Sustainability:What do the terms mean?Examples of food security and sustainability. |  |  |  |
| Food Processing:Primary ProcessingSecondary Processing.Examples of Primary and Secondary Processing. |  |  |  |
| Nutritional Modification and Fortification:Why do we fortify or modify foods?The use of additives in Food |  |  |  |