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| Topic Area |  |  |  |  |  |  |  |  |  |
| Food, Nutrition and Health | **Eat Well Guide**: Importance. How it is made up.  Knowledge of each section:  Fruit and Vegetables.  Starchy Carbohydrates.  Dairy and Alternatives  Protein 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 carbohydrate  Eating lots of fruit and vegetables.  Get active and be a healthy weight. | **Macronutrients:**  Understand sources and functions of **protein**, **carbohydrate** and **fats**  **Sources** – 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. |
| Food Science | **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 air  Folding in air  Using steam.  Beating eggs  **Chemical**  Examples of when raising agents are used.  Baking powder,  Bicarbonate of soda  Cream of tarter  **Biological**  Production of CO2 – through activation of Yeast |
| Food Safety | **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-making.  Bacteria 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:**  Campylobacter  Escherichia Coli  Salmonella  Listeria  Staphylococcus Aureus. | **Buying and Storing Food:**  Where food is bought  What 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-contamination  Food and Cooking:  75c to kill bacteria.  Temperature probe.  Danger Zone 5 – 63c |
| Food Choice | **Factors affecting what we eat:**  Life Stage  Physical 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:**  Buddhism  Christianity  Hinduism  Islam  Judaism  Rastafariansim,  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 Labelling  Types 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 |
| Food Provenance and Production | **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:**  Packaging  Food Waste | **Food Security and Sustainability:**  What do the terms mean?  Examples of food security and sustainability. | **Food Processing:**  Primary Processing  Secondary Processing.  Examples of Primary and Secondary Processing. | **Nutritional Modification and Fortification:**  Why do we fortify or modify foods?  The use of additives in Food |  |