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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 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 **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 airFolding in airUsing steam.Beating eggs**Chemical**Examples of when raising agents are used.Baking powder,Bicarbonate of sodaCream 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:**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 |
| Food Choice | **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 |
| 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:**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 |  |