

Curriculum Intent

GCSE FOOD PREPARATION & NUTRITION YEAR 9

	What?	Why?
Term 1-1	<p>3.4 FOOD SAFETY 3.4.1- Food spoilage and contamination 3.4.1.1- microorganisms and enzymes 3.4.1.2- signs of food spoilage 3.4.1.3- microorganisms in food production 3.4.1.4- bacterial contamination 3.4.2- Principles of food safety Buying, storing, preparing, and cooking food</p> <p>3.1- FOOD PREPARATION SKILLS</p>	<p>Knowledge and understanding of the causes of food spoilage and contamination K&U of food poisoning and food poisoning bacteria K&U food safety (buying, storage, preparation, cooking) Hygienic and safe work practices in the kitchen to avoid any food contamination and food poisoning risk To be able to produce food dishes safely K&U of beneficial micro-organisms and their use in producing some food products</p>
Term 1-2	<p>3.3 FOOD SCIENCE 3.3.2 Functional and Chemical Properties of Food</p> <p>Proteins Carbohydrates Fats and oils Raising agents</p> <p>3.1- FOOD PREPARATION SKILLS</p> <p>Year 9 Exam (RECAP on food safety and food science so far) Continue with Food science and associated practical activities RECAP on food science/test/exam</p>	<p>The scientific principles underlying these processes when preparing and cooking food:</p> <ul style="list-style-type: none"> • protein denaturation • protein coagulation • gluten formation • foam formation • gelatinisation • dextrinisation • caramelisation • shortening • aeration • plasticity • emulsification • enzymic browning • oxidation • chemical raising agents (baking powder, bicarbonate of soda, self- raising flours which produce carbon dioxide) • mechanical raising agents (whisking, beating, folding, sieving, creaming and rubbing in – all incorporate air into the mixture) • steam as a raising agent is produced when the water in any moist mixture reaches boiling point



		<ul style="list-style-type: none"> biological (yeast)
<p>Term 2-1 Term 2-2</p>	<p><u>3.2 FOOD NUTRITION & HEALTH</u> 3.2.1 Macronutrients Protein Fats Carbohydrates</p> <p>3.2.2 Micro nutrients Vitamins (fat soluble, water soluble, antioxidants) Minerals Water</p>	<p><u>MACRONUTRIENTS</u> Protein: <ul style="list-style-type: none"> low and high biological value proteins protein complementation protein alternatives eg textured vegetable protein (TVP), soya, mycoprotein and tofu Fats: <ul style="list-style-type: none"> saturated fats unsaturated fats (monounsaturated and polyunsaturated) Carbohydrates: <ul style="list-style-type: none"> starch (polysaccharides) sugars (monosaccharides/disaccharides) dietary fibre <p>Knowledge of the functions, main sources, effects of deficiency and excess, related dietary reference values for each the macronutrients.</p> <p><u>MICRONUTRIENTS</u> Fat Soluble Vitamins: The functions, main sources, effects of deficiency and excess and related dietary reference values. <ul style="list-style-type: none"> vitamin A vitamin D vitamin E vitamin K Water soluble Vitamins: The functions, main sources, effects of deficiency and excess and related dietary reference values. How preparation and cooking affects the nutritional properties of food. <ul style="list-style-type: none"> B group – B1 (thiamin), B2 (riboflavin), B3 (niacin), folic acid, B12 vitamin C (ascorbic acid) loss of water soluble vitamins when cooking (B group and Vitamin C) </p> </p>



	<p>3.1 Food Preparation Skills</p>	<p>Antioxidant functions of vitamins A, C and E. The role of antioxidants in protecting body cells from damage.</p> <p>Minerals: The functions, main sources, effects of deficiency and excess, related dietary reference values for:</p> <ul style="list-style-type: none"> • calcium • iron • sodium (salt) • fluoride • iodine • phosphorus. <p>Water: The importance of hydration and the functions of water in the diet. functions of water to eliminate waste from the body, cooling and for digestion.</p> <ul style="list-style-type: none"> • how water is lost from the body. • how much water/fluid is needed each day. • occasions when extra fluids are needed.
<p>Term 3-1 Term 3-2</p>	<p><u>3.2 FOOD, NUTRITION AND HEALTH</u> 3.2.3.1 Making Informed Choices for a varied and balanced diet</p> <p>3.2.3.2 Energy needs</p>	<p><u>Making Informed Choices for a varied and balanced diet:</u></p> <ul style="list-style-type: none"> • The current guidelines for a healthy diet (The Eatwell Guide) • Portion size and costing when meal planning. • How peoples' nutritional needs change through life • How to plan a balanced diet for different life stages. • Nutritional needs for the following life stages: young children, teenagers, adults and the elderly. • How to plan a balanced meal for specific dietary groups: vegetarian and vegan, coeliac, lactose intolerant and high fibre diets. • How to maintain a healthy body weight throughout life <p><u>Energy Needs:</u></p> <ul style="list-style-type: none"> • The basal metabolic rate (BMR) and physical activity level (PAL) and their importance in determining energy requirements.



3.2.3.3 How to carry out Nutritional analysis

- The recommended percentage of energy intake provided by protein, fat and carbohydrates (starch and sugar).
- Factors which affect the BMR, such as age, gender and PAL. Their importance in achieving energy balance.
- The percentage of recommended energy sources from nutrients: (protein 15%, fat 35% or less, carbohydrate 50% (of which 45% from starches, lactose in milk and fruit sugars and a maximum of 5% from free sugars).
- Consideration of the nutritional needs and food choices when selecting recipes, including when making decisions about the ingredients, processes, cooking methods and portion sizes.
- To plan, prepare, cook, modify, and create recipes to meet different dietary groups and life stages including portion sizes according to life stage/PAL level.

How to carry out nutritional analysis

- How to plan and modify recipes, meals and diets to reflect the nutritional guidelines for a healthy diet.
- How to use current nutritional information and data eg food tables, nutritional analysis software to calculate energy and nutritional value.
- Plan, make and modify dishes calculating energy and nutritional values.

Diet, nutrition and health

How diet can affect health and how nutritional needs change in relation to:

- obesity
- cardiovascular health
(coronary heart disease (CHD) and high blood pressure)
- bone health (rickets and osteoporosis)
- dental health
- iron deficiency anaemia
- Type 2 diabetes.

3.2.3.4 Diet, nutrition and health

The relationship between diet, nutrition and health
The major diet related health risks.

3.2.3.5 Technological developments (e.g. fortified foods, cholesterol lowering spreads)

RECAP/TEST/EXAM

3.1- FOOD PREPARATION SKILLS