

# Curriculum Overview

Subject: Food Preparation & Nutrition

Year Group: 10



**CHASE HIGH SCHOOL**  
AMBITION - RESILIENCE - KINDNESS

Students are working in line with the AQA GCSE Food Preparation and Nutrition specification. The topics taught over the year are: 1. Food, nutrition and health 2. Food science 3. Food safety 4. Food choice 5. Food provenance. The range of food and ingredients studied reflect the recommended guidelines for a healthy-balanced diet based on the main food commodity groups. Food groups include: • starch: bread, cereals, flour, oats, rice, potatoes and pasta • fruit and vegetables (fresh, frozen, dried, canned and juiced) • Dairy and alternatives: milk, cheese and yoghurt • Protein: meat, fish, eggs, soya, tofu, beans, nuts and seeds • Oils and spreads: butter, oil, margarine, sugar and syrup.

Students will work on their NEA using the given topics supplied by AQA.

TERM 1	TERM 2	TERM 3
<p><b>KNOWLEDGE/SKILLS</b></p> <p><b><u>Nutritional Needs and Health</u></b></p> <p><u>Protein</u> – what protein is made up of, functions, natural substances, biological values, protein complementation, alternatives, deficiency, excess and RDA's. Protein Practical: Asian Chicken Noodles: Skills – Portioning   Knife Skills</p> <p><u>Fats</u> – chemical structures, functions, saturated, unsaturated, deficiency effects, excess effects, adipose fat, visceral fat. Fat Practical – Shortcrust Pastry Dish Skills – Rubbing technique   Pastry making</p> <p><u>Carbohydrates</u> – Photosynthesis, functions, fibre, effects of deficiency and excess, RDA's, simple carbs, complex carbs, monosaccharides, disaccharides, polysaccharides, tooth decay, energy levels. Carbohydrate Dish: Pasta Dish</p>	<p><b>KNOWLEDGE/SKILLS</b></p> <p><b><u>Food Safety</u></b></p> <p><u>Micro-organisms</u> – types of micro-organisms, bacteria, yeast, mould. Analysing binary fission and what impacts the rate, palatability, contamination, cross contamination.</p> <p><u>Micro-organisms used in food production.</u></p> <p><u>Bacterial contamination</u> – food poisoning, campylobacter, E.coli, salmonella, listeria and staphylococcus, incubation periods.</p> <p><u>Temperatures</u> – storage areas, cupboard, fridge, freezer. Practical: Lasagne Skills – Pasta making, knife skills, reduction sauce, roux sauce Practical: Pot Pie</p>	<p><b>KNOWLEDGE/SKILLS</b></p> <p><b><u>NEA1 Walk Through</u></b></p> <ul style="list-style-type: none"> <li>- Food science knowledge recall</li> <li>- Research greater depth</li> <li>- Investigation planning</li> <li>- Conducting investigations</li> <li>- Report writing</li> <li>- Sensory analysis</li> </ul> <p><b><u>NEA2 Walk Through</u></b></p> <ul style="list-style-type: none"> <li>- Choice of topics</li> <li>- Task analysis: recall prior learning</li> <li>- Research: providing greater depth.</li> <li>- Dish research: 10 dishes</li> <li>- Practical: 4 dishes</li> <li>- Produce written report on nutritional content, sensory analysis and criteria of the task.</li> <li>- Menu planning – drawing specific links to skills, ingredients or nutrients.</li> <li>- Creating a time plan.</li> </ul>

<p>Skills: Pasta making</p> <p><u>Vitamins and Minerals</u> – fat-soluble, water-soluble, functions, effects of deficiency and excess, antioxidants. Vitamin and minerals practical: Spiced carrot and lentil soup.</p> <p>Skills: Soup making   Bread making</p> <p><u>Lifestages</u> – Looking at all lifestages, nutrients required to support processes, infancy, childhood, adolescence, adulthood and elderly. Analysing each ones dietary needs.</p> <p>Lifestage Practical – Student choice Skills – student choice</p> <p><u>Energy Needs</u> – BMR, PAL, energy balance, calorie intake, calorie output, effects of too much and too little energy</p> <p><u>Diet-Related Diseases</u> – obesity, cardiovascular disease, skeletal, anaemia and diabetes. Assessing dietary needs, impact on the body, coronary heart disease, rickets, osteoporosis, osteomalacia.</p> <p><b><u>Food Science</u></b> Why do we cook food. Heat Transfer - conduction, convection, radiation. Cooking methods – frying, shallow frying, deep frying, simmering, braising, baking, roasting, sauteeing, boiling, steaming, grilling, microwaving, toasting etc. Heat Transfer Practical: Rosti Starter</p>	<p>Skills – Pastry making, roux sauce, knife skills, glazing.</p> <p><b><u>Food Choice</u></b></p> <p><u>Allergies and Intolerance</u> – common allergens, symptoms, anaphylaxis shock, lactose intolerance, coeliac, villi, impact on body.</p> <p><u>Religion and culture</u> – Hinduism, Christianity, Judaism, Islam, Sikhism and Rastafarianism. Each look at celebration events, restrictions in the diet, moral and ethical beliefs. Practical: Culture Dish – Student Choice Skills – Student choice of complex skills.</p> <p><u>Factors that influence food choice</u> – cost, seasonality, availability, religion, medical issues, intolerances, marketing, packaging, eating habits.</p> <p><u>Investigation</u>: Sensory Analysis – Savoury VS Sweet VS Salt</p> <p><b><u>Food Provenance</u></b></p> <p><u>Understanding where food comes from</u>: growing, rearing, catching, gathering, specialist equipment, polytunnels, hydroponic production.</p> <p><u>Farming methods</u> – organic, intensive, advantages, disadvantages, fallow land.</p> <p><u>Genetic Modification</u> – deoxyribonucleic acid, growth rates, resistance, sensory qualities, nutritional content.</p> <p><u>Food and environment</u> – climate change, greenhouse gases, global warming, severe</p>	<ul style="list-style-type: none"> <li>- Practical exam run through: students produce three dishes in an allocated time period (three hours)</li> <li>- Written analysis report on the nutritional content, costing and sensory analysis of each dish.</li> <li>- Produce a final evaluation explaining all outcomes.</li> </ul> <p><b><u>PPE EXAM</u></b></p> <ul style="list-style-type: none"> <li>- Nutritional needs and health</li> <li>- Food science</li> <li>- Food safety</li> <li>- Food choice</li> <li>- Food provenance</li> </ul> <p>Content Recap, Recall and Retrieve</p> <ul style="list-style-type: none"> <li>- Nutritional needs and health</li> </ul> <p>Practical: Student Choice – Produce an informative nutritional content report.</p> <ul style="list-style-type: none"> <li>- Food science</li> </ul> <p>Practical: Student Choice – Produce an informative nutritional content report.</p> <ul style="list-style-type: none"> <li>- Food safety</li> </ul> <p>Practical: Student Choice – Produce an informative nutritional content report.</p> <ul style="list-style-type: none"> <li>- Food choice</li> </ul> <p>Practical: Student Choice – Produce an informative nutritional content report.</p> <ul style="list-style-type: none"> <li>- Food provenance</li> </ul> <p>Practical: Student Choice – Produce an informative nutritional content report.</p>
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<u>Functional and Chemical Properties</u> <ul style="list-style-type: none"> <li>- Protein: Denaturation, coagulation, gluten, foams.</li> <li>- Carbohydrates: Gelatinisation, dextrinisation and caramelisation.</li> <li>- Fats: Plasticity, aeration, shortening and emulsification.</li> </ul> <u>Raising Agents</u> Mechanical, chemical and biological raising agents. Carbon dioxide   fermentation F&C/Raising Agent Practical – Choux Pastry Buns Skills – Pastry making and piping	weather conditions, food production, food miles, food waste, primary and secondary processing and food sustainability. Practical: Homemade soft cheese Practical: Pizza baguettes (using soft cheese) Skills: Bread making, reduction sauce, cheese making, knife skills, portioning.	
<u>Technological Developments</u> – food additives, fortification, nutritional content, e-numbers, advantages and disadvantages		
<b>KEY ASSESSMENTS</b>  Half term 1: Macronutrient EOT Test  Half term2: Food science EOT Test	<b>KEY ASSESSMENTS</b>  Half term 1: Food Safety EOT Test  Half term2: Food Provenance EOT Test	<b>KEY ASSESSMENTS</b>  Half term 1: PPE  Half term 2: NEA 1 and NEA 2 Walk Through
Extended reading suggestions and external resources:  Jenny Ridge well Nutrition Programme  Online Textbook: <a href="https://illuminatedigital.com/aqafood">illuminatedigital/aqafood</a>  BBC Good Food Guide  BBC Bitesize		