# 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 |
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| KNOWLEDGE/SKILLS<br><br>**Nutritional Needs and Health**<br><br>Protein – what protein is made up of, functions, natural substances, biological values, protein complementation, alternatives, deficiency, excess and RDA's.<br>Protein Practical: Asian Chicken Noodles:<br>Skills – Portioning \| Knife Skills<br><br>Fats – chemical structures, functions, saturated, unsaturated, deficiency effects, excess effects, adipose fat, visceral fat.<br>Fat Practical – Shortcrust Pastry Dish<br>Skills – Rubbing technique \| Pastry making<br><br>Carbohydrates – Photosynthesis, functions, fibre, effects of deficiency and excess, RDA's, simple carbs, complex carbs, monosaccharides, disaccharides, polysaccharides, tooth decay, energy levels.<br>Carbohydrate Dish: Pasta Dish | KNOWLEDGE/SKILLS<br><br>**Food Safety**<br><br>Micro-organisms – types of micro-organisms, bacteria, yeast, mould. Analysing binary fission and what impacts the rate, palatability, contamination, cross contamination.<br><br>Micro-organisms used in food production.<br><br>Bacterial contamination – food poisoning, campylobacter, E.coli, salmonella, listeria and staphylococcus, incubation periods.<br><br>Temperatures – storage areas, cupboard, fridge, freezer.<br>Practical: Lasagne<br>Skills – Pasta making, knife skills, reduction sauce, roux sauce<br>Practical: Pot Pie | KNOWLEDGE/SKILLS<br><br>NEA1 Walk Through<br>- Food science knowledge recall<br>- Research greater depth<br>- Investigation planning<br>- Conducting investigations<br>- Report writing<br>- Sensory analysis<br><br>NEA2 Walk Through<br>- Choice of topics<br>- Task analysis: recall prior learning<br>- Research: providing greater depth.<br>- Dish research: 10 dishes<br>- Practical: 4 dishes<br>- Produce written report on nutritional content, sensory analysis and criteria of the task.<br>- Menu planning – drawing specific links to skills, ingredients or nutrients.<br>- Creating a time plan. |

Skills: Pasta making

Vitamins and Minerals – fat-soluble, water-soluble, functions, effects of deficiency and excess, antioxidants.
Vitamin and minerals practical: Spiced carrot and lentil soup.

Skills: Soup making | Bread making

Lifestages – Looking at all lifestages, nutrients required to support processes, infancy, childhood, adolescence, adulthood and elderly. Analysing each ones dietary needs.

Lifestage Practical – Student choice
Skills – student choice

Energy Needs – BMR, PAL, energy balance, calorie intake, calorie output, effects of too much and too little energy

Diet-Related Diseases – obesity, cardiovascular disease, skeletal, anaemia and diabetes. Assessing dietary needs, impact on the body, coronary heart disease, rickets, osteoporosis, osteomalacia.

**Food Science**
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

Skills – Pastry making, roux sauce, knife skills, glazing.

**Food Choice**

Allergies and Intolerance – common allergens, symptoms, anaphylaxis shock, lactose intolerance, coeliac, villi, impact on body.

Religion and culture – 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.

Factors that influence food choice – cost, seasonality, availability, religion, medical issues, intolerances, marketing, packaging, eating habits.

Investigation: Sensory Analysis – Savoury VS Sweet VS Salt

**Food Provenance**

Understanding where food comes from: growing, rearing, catching, gathering, specialist equipment, polytunnels, hydroponic production.

Farming methods – organic, intensive, advantages, disadvantages, fallow land.

Genetic Modification – deoxyribonucleic acid, growth rates, resistance, sensory qualities, nutritional content.

Food and environment – climate change, greenhouse gases, global warming, severe

- Practical exam run through: students produce three dishes in an allocated time period (three hours)
- Written analysis report on the nutritional content, costing and sensory analysis of each dish.
- Produce a final evaluation explaining all outcomes.

PPE EXAM
- Nutritional needs and health
- Food science
- Food safety
- Food choice
- Food provenance

Content Recap, Recall and Retrieve
- Nutritional needs and health

Practical: Student Choice – Produce an informative nutritional content report.
- Food science

Practical: Student Choice – Produce an informative nutritional content report.
- Food safety

Practical: Student Choice – Produce an informative nutritional content report.
- Food choice

Practical: Student Choice – Produce an informative nutritional content report.
- Food provenance

Practical: Student Choice – Produce an informative nutritional content report.

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| <u>Functional and Chemical Properties</u><br>- Protein: Denaturation, coagulation, gluten, foams.<br>- Carbohydrates: Gelatinisation, dextrinisation and caramelisation.<br>- Fats: Plasticity, aeration, shortening and emulsification.<br><br><u>Raising Agents</u><br>Mechanical, chemical and biological raising agents. Carbon dioxide \| fermentation<br>F&C/Raising Agent Practical – Choux Pastry Buns<br>Skills – Pastry making and piping | weather conditions, food production, food miles, food waste, primary and secondary processing and food sustainability.<br>Practical: Homemade soft cheese<br>Practical: Pizza baguettes (using soft cheese)<br>Skills: Bread making, reduction sauce, cheese making, knife skills, portioning.<br><br><u>Technological Developments</u> – food additives, fortification, nutritional content, e-numbers, advantages and disadvantages | |
| KEY ASSESSMENTS<br><br>Half term 1: Macronutrient EOT Test<br><br>Half term2: Food science EOT Test | KEY ASSESSMENTS<br><br>Half term 1: Food Safety EOT Test<br><br>Half term2: Food Provenance EOT Test | KEY ASSESSMENTS<br><br>Half term 1: PPE<br><br>Half term 2: NEA 1 and NEA 2 Walk Through |
| Extended reading suggestions and external resources:<br><br>Jenny Ridge well Nutrition Programme<br><br>Online Textbook: illuminatedigital/aqafood<br><br>BBC Good Food Guide<br><br>BBC Bitesize | | |

# Curriculum Overview

Subject: Food Preparation & Nutrition

Year Group: 11

CHASE HIGH SCHOOL
AMBITION - RESILIENCE - KINDNESS

Students are working in line with the AQA GCSE Food Preparation and Nutrition specification. Students are developing their skills and knowledge and applying what they

have learnt to their NEA 1 and NEA 2. Investigation project and Food Preparation task.

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

| TERM 1 | TERM 2 | TERM 3 |
|---|---|---|
| KNOWLEDGE/SKILLS<br><br>**1st September – NEA1 Release Date**<br>Three sets of criteria are sent for students to select one they wish to complete.<br>- Food science knowledge recall<br>- Research greater depth<br>- Investigation planning<br>- Conducting investigations<br>- Report writing<br>- Sensory analysis<br>**Completion date October 30th**<br><br>**1st November – NEA2 Release Date**<br>- Choice of topics<br>- Task analysis: recall prior learning<br>- Research: providing greater depth.<br>- Dish research: 10 dishes<br>- Practical: 4 dishes<br>- Produce written report on nutritional content, sensory analysis and criteria of the task. | KNOWLEDGE/SKILLS<br><br>NEA2 Continued<br>- Menu planning – drawing specific links to skills, ingredients or nutrients.<br>- Creating a time plan.<br>- Practical exam run through: students produce three dishes in an allocated time period (three hours)<br>- Written analysis report on the nutritional content, costing and sensory analysis of each dish.<br>- Produce a final evaluation explaining all outcomes.<br><br>**Completion Date February 15th**<br><br>**Nutritional Needs and Health**<br><br>Protein – what protein is made up of, functions, natural substances, biological values, protein complementation, alternatives, deficiency, excess and RDA's. | KNOWLEDGE/SKILLS<br><br>**Food Science**<br><br>Why do we cook food.<br>Heat Transfer - conduction, convection, radiation.<br>Cooking methods – frying, shallow frying, deep frying, simmering, braising, baking, roasting, sauteeing, boiling, steaming, grilling, microwaving, toasting etc.<br><br>Functional and Chemical Properties<br>- Protein: Denaturation, coagulation, gluten, foams.<br>- Carbohydrates: Gelatinisation, dextrinisation and caramelisation.<br>- Fats: Plasticity, aeration, shortening and emulsification.<br><br>Raising Agents<br>Mechanical, chemical and biological raising agents. Carbon dioxide \| fermentation<br><br>**Food Safety** |

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|---|---|---|
| | Fats – chemical structures, functions, saturated, unsaturated, deficiency effects, excess effects, adipose fat, visceral fat.<br><br>Carbohydrates – Photosynthesis, functions, fibre, effects of deficiency and excess, RDA's, simple carbs, complex carbs, monosaccharides, disaccharides, polysaccharides, tooth decay, energy levels.<br><br>Vitamins and Minerals – fat-soluble, water-soluble, functions, effects of deficiency and excess, antioxidants.<br><br>Lifestages – Looking at all lifestages, nutrients required to support processes, infancy, childhood, adolescence, adulthood and elderly. Analysing each ones dietary needs.<br><br>Energy Needs – BMR, PAL, energy balance, calorie intake, calorie output, effects of too much and too little energy<br><br>Diet-Related Diseases – obesity, cardiovascular disease, skeletal, anaemia and diabetes. Assessing dietary needs, impact on the body, coronary heart disease, rickets, osteoporosis, osteomalacia. | Micro-organisms – types of micro-organisms, bacteria, yeast, mould. Analysing binary fission and what impacts the rate, palatability, contamination, cross contamination.<br><br>Micro-organisms used in food production.<br><br>Bacterial contamination – food poisoning, campylobacter, E.coli, salmonella, listeria and staphylococcus, incubation periods.<br><br>Temperatures – storage areas, cupboard, fridge, freezer.<br><br>**Food Provenance**<br>Understanding where food comes from: growing, rearing, catching, gathering, specialist equipment, polytunnels, hydroponic production.<br><br>Farming methods – organic, intensive, advantages, disadvantages, fallow land.<br><br>Genetic Modification – deoxyribonucleic acid, growth rates, resistance, sensory qualities, nutritional content.<br><br>Food and environment – climate change, greenhouse gases, global warming, severe weather conditions, food production, food miles, food waste, primary and secondary processing and food sustainability.<br><br>Technological Developments – food additives, fortification, nutritional content, e-numbers, advantages and disadvantages. |

| KEY ASSESSMENTS | KEY ASSESSMENTS | KEY ASSESSMENTS |
|---|---|---|
| Half term 1: Internal nutritional needs test<br><br>PPE exam | Half term 1: PPE Exam | Half term 1: Topic Tests \| Exam Preparation \| Walk Throughs<br><br>Half term 2: Exam |
| Extended reading suggestions and external resources:<br><br>Jenny Ridgewell<br><br>BBC Good Food Guide<br><br>BBC Bitesize | | |