GCSE Food Preparation and Nutrition - Curriculum Vision

- Students will become confident, independent cooks who prepare and serve food that promotes health and wellbeing and showcase high-level technical skills.
- Students will be critical, ethical consumers who understand the environmental, economic and cultural impacts of food choices.
- Students will develop subject specific literacy, practical resilience and creative problem-solving through investigation and NEA work.
- Students will experience a knowledge-rich GCSE that is sequenced to deepen understanding and practical competence across five key areas (Food, Nutrition and Health, Food Science, Food Safety, Food Choice and Food Provenance).

Our curriculum is sequenced to ensure that knowledge and skills are revisited, practised and mastered over time, enabling all learners to make sustained progress and achieve success.

Year 10 overview

The year 10 curriculum is designed to equip students with the knowledge and understanding required to be successful in the written exam at the end of year 11, along with developing high-level practical skills which will be key to success in the practical assessment, which makes up part of the NEA2 assessment in year 11.

	Food, Nutrition and Health
Pupils will know	• The functions, main sources, effects of deficiency and excess, and dietary reference values of protein (HBV/LBV proteins, protein complementation and alternatives such as TVP, soya, mycoprotein and tofu), fats (saturated and unsaturated) and carbohydrates (starch, sugars and dietary fibre). • The functions and sources of fat-soluble vitamins (A, D, E, K) and water-soluble vitamins (B group and C), and the antioxidant role of vitamins A, C and E. • The functions and sources of minerals (calcium, iron, sodium, fluoride, iodine and phosphorus), and the importance of water and hydration in the diet. • Current healthy eating guidelines, including the Eatwell Guide, and how nutritional needs change for young children, teenagers, adults and the elderly. • How basal metabolic rate (BMR) and physical activity level (PAL) determine energy needs, and the recommended energy sources: protein 15%, fat 35% or less, carbohydrate 50% (no more than 5% from free sugars). • The major diet-related health risks: obesity, cardiovascular health (CHD and high blood pressure), bone health (rickets and osteoporosis), dental health, iron deficiency anaemia and Type 2 diabetes.

Pupils will know how to (procedural knowledge)	• Plan, prepare, cook and modify meals for specific dietary groups: vegetarian, vegan, coeliac, lactose intolerant and high-fibre diets. • Modify recipes to reduce fat, sugar and salt and increase fibre (e.g. grilling instead of frying, seasoning with herbs and spices instead of salt). • Carry out nutritional analysis using food tables or nutritional analysis software to calculate energy and nutrient values of recipes. • Plan balanced meals with appropriate portion sizes and costings for different life stages and activity levels. • Apply practical skills through nutrition-focused dishes: knife skills (S2), meat or meat-alternative sauces (S8), pastry and high-fibre bread rolls (S10) and starch-set mixtures (S12).
Core knowledge to know and remember to progress to later learning (foundational knowledge)	• Macronutrients are needed in large amounts (protein, fat, carbohydrate); micronutrients in small amounts (vitamins and minerals). • A balanced diet follows the proportions of the Eatwell Guide. • Energy balance: if energy in is greater than energy out, weight is gained; if it is less, weight is lost. • Key nutrient links to health: iron and anaemia; calcium and vitamin D with bone health; saturated fat with CHD; sugar with dental decay and Type 2 diabetes. • Water-soluble vitamins (B group and C) are lost through heat and cooking in water.
Prior knowledge	• KS3: the Eatwell Guide, the main nutrients and their sources, basic food label reading and a practical repertoire built up in Years 7 to 9.
Future knowledge	• Year 11 written exam: nutrition questions, including nutritional analysis and diet-related health. • NEA 2: meeting the nutritional needs of the target group, and nutritional analysis of the final dishes. • Post-16: Level 3 Food Science and Nutrition, A level Biology or PE, and careers in nutrition, dietetics and health.
Key vocabulary	Macronutrient, micronutrient, high biological value (HBV), low biological value (LBV), protein complementation, saturated fat, unsaturated fat, dietary fibre, antioxidant, dietary reference values (DRV), basal metabolic rate (BMR), physical activity level (PAL), energy balance, Eatwell Guide, anaemia, coeliac, coronary heart disease (CHD), Type 2 diabetes.

	Food Science
Pupils will know	• Why food is cooked (to make it safe, develop flavour, improve texture, improve shelf life and give variety) and how heat is transferred by conduction, convection and radiation.

	● How water-based (steaming, boiling, simmering, blanching, poaching, braising), dry (baking, roasting, grilling, dry frying) and fat-based (shallow frying, stir frying) methods can conserve or change nutritive value and palatability. ● The functional and chemical properties of proteins: denaturation, coagulation, gluten formation and foam formation. ● The functional and chemical properties of carbohydrates (gelatinisation, dextrinisation, caramelisation) and of fats and oils (shortening, aeration, plasticity, emulsification). ● Enzymic browning and oxidation in fruit and vegetables. ● How chemical, mechanical, steam and biological (yeast) raising agents work.
Pupils will know how to (procedural knowledge)	● Select and use the grill, oven, hob and microwave to achieve desired characteristics (S4, S5, S6). ● Make starch-based sauces (roux, all-in-one, blended) and show how starch to liquid ratios affect viscosity; make an emulsion sauce such as mayonnaise or a salad dressing (S8). ● Make pastry to show shortening and plasticity, and bread and pasta to show gluten formation (S10). ● Use marinades to denature and tenderise protein (S9); whisk eggs to make a gas-in-liquid foam; use steam to raise choux pastry (S11); set egg mixtures, e.g. quiche (S12). ● Prevent enzymic browning using acids such as lemon juice (S3). ● Plan and carry out controlled practical investigations: write a hypothesis, change one variable, use sensory and objective tests and record results in tables and charts (NEA 1 practice).
Core knowledge to know and remember to progress to later learning (foundational knowledge)	● The three methods of heat transfer: conduction, convection and radiation. ● Key definitions: gelatinisation, dextrinisation, caramelisation, denaturation, coagulation, shortening, aeration and emulsification. ● Ingredient ratios, temperatures and cooking times affect the texture, structure and appearance of food. ● A fair test changes only one variable at a time so that results are reliable.
Prior knowledge	● KS3: practical investigations into bread, sauces and raising agents, and basic cooking methods. ● KS3 Science: heat transfer, states of matter and simple chemical reactions.
Future knowledge	● NEA 1: an investigation into the working characteristics and functional and chemical properties of ingredients. ● NEA 2: selecting and justifying technical skills; Year 11 written exam food science questions. ● Post-16: Level 3 Food Science and Nutrition, A level Chemistry or Biology, and careers as a food scientist or technologist.
Key vocabulary	Conduction, convection, radiation, denaturation, coagulation, gluten, gelatinisation, dextrinisation, caramelisation, shortening, plasticity,

	aeration, emulsion, emulsifier, enzymic browning, oxidation, raising agent, viscosity, palatability, hypothesis.

	Food Safety
Pupils will know	• The growth conditions for microorganisms (temperature, moisture, food and time) and how growth is controlled (temperature, pH and water availability). • Bacteria, yeasts and moulds are microorganisms; enzymes are biological catalysts. The signs of food spoilage: enzymic action, mould growth and yeast action. • Microorganisms are used in food production: moulds in blue cheese, yeast to raise bread and bacteria in yoghurt and cheese. • The sources of bacterial contamination and the main food poisoning bacteria (campylobacter, E. coli, salmonella, listeria, staphylococcus aureus), how to control them and the general symptoms of food poisoning. • Which foods are high risk, and why. • Key temperatures: freezing -18°C, chilling 0°C to below 5°C, danger zone 5–63°C, cooking and reheating to 75°C. The difference between 'use by' and 'best before' dates.
Pupils will know how to (procedural knowledge)	• Store food correctly (fridge, freezer, ambient), cover foods and use date marks to make safe decisions. • Follow personal hygiene rules and prevent cross-contamination: separate equipment for raw and cooked foods, clean work surfaces, and wash and dry fruit and vegetables (S2, S3). • Use a temperature probe and other readiness tests (skewer, poke, visual and sound checks) to make sure food is safe (S1). • Handle high-risk foods safely when shaping wet mixtures such as fish cakes, falafel or meatballs (S7). • Defrost and reheat food safely, and blanch vegetables to destroy enzymes before freezing (S6). • Make a bread dough to show the action of yeast in food production (S4, S10).
Core knowledge to know and remember to progress to later learning (foundational knowledge)	• The danger zone is 5–63°C; food must be cooked or reheated to a core temperature of 75°C. • 'Use by' dates are about safety; 'best before' dates are about quality. • The main sources of contamination: raw foods, people, equipment and surfaces, pests, and waste food and rubbish. • Cross-contamination is prevented by separating raw and cooked foods, using clean equipment and good personal hygiene.
Prior knowledge	• KS3: hygiene routines, basic temperature control and the safe use of knives and equipment.

Future knowledge	• NEA 2: food safety principles in the time plan (Section C) and in making the final dishes (Section D). • Year 11 written exam food safety questions. • Post-16: Level 2 Food Hygiene, catering and food industry employment, and Level 3 study.
Key vocabulary	Microorganism, pathogen, bacteria, yeast, mould, enzyme, high risk food, spoilage, cross-contamination, danger zone, core temperature, ambient, use by, best before, food poisoning, salmonella, campylobacter, E. coli, listeria, staphylococcus aureus, temperature probe.

	Food Choice
Pupils will know	• The factors which influence food choice: physical activity level, celebration or occasion, cost, preferences, enjoyment, availability, healthy eating, income, lifestyle, seasonality, time of day and time available to prepare and cook. • Food choices linked to religion and culture (Buddhism, Christianity, Hinduism, Islam, Judaism, Rastafarianism and Sikhism) and to ethical and moral beliefs (animal welfare, Fairtrade, local produce, organic and GM foods). • Food intolerances (gluten and lactose) and allergies (nuts, egg, milk, wheat, fish and shellfish). • The mandatory and non-mandatory information on food labels, and how marketing (e.g. BOGOF, special offers, meal deals, advertising and point of sale) influences food choice. • The distinctive features of British cuisine and two international cuisines: ingredients, equipment, cooking methods, eating patterns, presentation styles and traditional and modern variations. • How taste receptors and the olfactory system work, and the types of sensory test: preference (paired preference, hedonic), discrimination (triangle) and grading (ranking, rating, profiling).
Pupils will know how to (procedural knowledge)	• Cost recipes and make modifications to meet a budget. • Select, modify and make recipes for different religions, cultures and dietary groups, explaining and justifying choices. • Interpret nutritional labelling to compare products. • Prepare and cook dishes from British tradition and two international cuisines, using a range of equipment and methods. • Set up a taste panel under controlled conditions, carry out sensory tests and evaluate and present the results (e.g. star profiles). • Taste and season during cooking, and change taste and aroma using infusions, herbs and spices, pastes, jus and reduction (S1).
Core knowledge to know and remember to progress to later	• Food choice is affected by many factors working together, such as cost, lifestyle, beliefs and health.

learning (foundational knowledge)	• Key dietary laws and practices, e.g. halal and kosher foods, and vegetarianism in Hinduism and Sikhism. • Allergies trigger an immune response and can be life-threatening; intolerances do not involve the immune system. • Which sensory test to use and why, and the controlled conditions needed for reliable results.
Prior knowledge	• KS3: food from other cultures, simple star-profile sensory evaluation, basic costing and label reading.
Future knowledge	• NEA 1: sensory testing methods. NEA 2: analysing the task and the target group, choosing dishes, costing and sensory evaluation (Sections A and E). • Year 11 written exam food choice questions. • Post-16: product development, marketing and the wider food industry.
Key vocabulary	Lifestyle, cuisine, halal, kosher, vegetarian, vegan, allergy, intolerance, Fairtrade, organic, genetically modified (GM), mandatory information, traffic light labelling, marketing, sensory analysis, taste panel, hedonic scale, triangle test, ranking, rating, star profile, olfactory.

	Food Provenance
Pupils will know	• Where and how ingredients are grown, reared and caught, including organic and conventional farming, free range production, intensive farming and sustainable fishing. • The advantages and disadvantages of locally produced, seasonal and GM foods. • The environmental issues linked to food: seasonality, transportation, carbon footprint, packaging, and food waste in the home, in production and in retail. • The challenges of food security: climate change, global warming, insufficient land, drought and flooding, food availability, Fairtrade and GM foods. • Primary processing (e.g. milling wheat into flour; pasteurised, UHT, sterilised and micro-filtered milk) and secondary processing (e.g. flour into bread or pasta, milk into cheese or yoghurt, fruit into jam), and how processing affects sensory and nutritional properties. • Technological developments for better health: fortification (e.g. white flour, breakfast cereals, spreads), cholesterol-lowering spreads, the pros and cons of additives (colourings, emulsifiers, stabilisers, flavourings, preservatives) and GM foods.
Pupils will know how to (procedural knowledge)	• Select seasonal ingredients when planning and making recipes (S2, S3). • Use leftover food to reduce waste.

	• Make fresh pasta dough, shape it using a pasta machine and cook it on the hob (S5, S6, S10). • Compare the cost and environmental impact of different sourcing options. • Carry out sensory analysis to evaluate fortified and modified food products.
Core knowledge to know and remember to progress to later learning (foundational knowledge)	• The difference between primary and secondary processing. • Food miles and carbon footprint, and why buying seasonal and local food can reduce them. • The differences between organic, free range and intensive farming. • What fortification is, with examples.
Prior knowledge	• KS3: seasonality, where food comes from and simple costing.
Future knowledge	• NEA 2: choosing and justifying ingredients (seasonality, cost, sustainability). • Year 11 written exam, including extended answers on sustainability. • Post-16: Geography, Environmental Science, agriculture and food production careers.
Key vocabulary	Provenance, seasonality, food miles, carbon footprint, sustainability, food security, organic, intensive farming, free range, sustainable fishing, Fairtrade, GM, primary processing, secondary processing, pasteurisation, UHT, fortification, additive, food waste.

Year 11 Overview

In year 11, students will complete 2 pieces of Non-Examined Assessment work (NEA work). NEA 1 will contribute 15% of the overall mark for the course and takes the form of a scientific investigation piece of work. NEA 2 involves designing for a client and, alongside the written work, will also include a practical assessment. This NEA 2 work makes up 35% of the overall grade for the course. The remaining 50% of the mark will come from the written exam at the end of year 11, based on knowledge and understanding gained throughout year 10.

	NEA 1 - Investigation Task
Pupils will know	• AQA releases three tasks on 1 September of Year 11, and one is chosen. The task is worth 30 marks (15% of the GCSE). The recommended time is 10 hours. • The outcome is a report of 1,500–2,000 words with photographic evidence of the practical investigation (with name and candidate number visible). • The marking sections: A Research (6 marks), B Investigation (15 marks), C Analysis and evaluation (9 marks).

	● The working characteristics and functional and chemical properties of the ingredients in the chosen task. ● Secondary sources must be acknowledged (e.g. a bibliography or footnotes).
Pupils will know how to (procedural knowledge)	● Analyse the task and carry out secondary research from different sources into how ingredients work and why. ● Use the research findings to plan the investigation and write a hypothesis or prediction. ● Carry out a series of practical investigations with clear aims, changing one variable at a time under controlled conditions. ● Record results using a range of testing methods: annotated photographs, labelled diagrams, tables, charts, sensory testing and viscosity tests. ● Analyse and interpret the results, decide whether the hypothesis is supported, and explain how the findings could be used when preparing and cooking food. ● Communicate clearly using specialist terminology within the word limit.
Core knowledge to know and remember to progress to later learning (foundational knowledge)	● The structure of an investigation: aim, hypothesis, method, results, conclusion, evaluation. ● Fair testing and controlled variables. ● Year 10 food science principles (proteins, carbohydrates, fats and oils, raising agents).
Prior knowledge	● Year 10: the Food Science unit and NEA practice (research questions, pilot trials and sensory testing protocols). ● KS3 food investigations and Science fair-test skills.
Future knowledge	● NEA 2: research, trialling and evaluating dishes. ● Year 11 written exam food science questions. ● Post-16: investigation and research skills for A levels, Level 3 Food Science and Nutrition, and the EPQ.
Key vocabulary	Hypothesis, prediction, aim, variable, control, fair test, primary research, secondary research, bibliography, working characteristics, functional properties, chemical properties, sensory testing, viscosity test, results, conclusion, evaluation.

	NEA 2 - Design Task
Pupils will know	● AQA releases three tasks on 1 November of Year 11, and one is chosen. The task is worth 70 marks (35% of the GCSE).

	● Time limit: up to 20 hours, including one single 3-hour practical session to make the final menu. The portfolio must be no more than 20 A4 sides. ● The marking sections: A Researching the task (6), B Demonstrating technical skills (18), C Planning for the final menu (8), D Making the final dishes (30), E Analyse and evaluate (8). ● The final menu is three dishes for a specific context; 3–4 dishes are trialled to showcase technical skills. ● Skills are judged as basic, medium or complex. Complex skills done to an excellent standard earn the highest marks. ● Food safety principles must be followed at all times; if a teacher has to step in, marks are reduced.
Pupils will know how to (procedural knowledge)	● Research and analyse the task and the needs of the target group, and choose dishes justified by the research. ● Trial and showcase a range of technical skills from the 12 skill groups, working independently. ● Write a detailed time plan for the final menu with dovetailing, food safety points (e.g. temperatures, storage) and contingencies. ● Prepare, cook and present three dishes within 3 hours, with accurate portioning, garnishing and presentation. ● Analyse and evaluate the final dishes through sensory testing, nutritional analysis and costing, and suggest improvements. ● Provide photographic evidence of the final dishes.
Core knowledge to know and remember to progress to later learning (foundational knowledge)	● The 12 food preparation skill groups (S1–S12), and how to combine them to achieve specific outcomes. ● Key food safety temperatures and safe handling of high-risk foods. ● The nutritional needs of different target groups and life stages. ● Time planning and dovetailing.
Prior knowledge	● Year 10: practical skill development across all five topic areas, timed multi-stage dishes and NEA practice. ● NEA 1: research and evaluation skills.
Future knowledge	● Year 11 written exam (50% of the GCSE). ● Post-16: Level 3 Food Science and Nutrition, T Level Catering, professional cookery and hospitality apprenticeships.
Key vocabulary	Target group, brief, technical skills, complex skill, mise en place, time plan, dovetailing, contingency, portion control, garnish, presentation, sensory evaluation, nutritional analysis, costing, portfolio.