# WJEC L3 Alternative Academic Qualification (Applied Qualification) in Food Science and Nutrition (Extended Certificate)

***Vision statement -*** *The Food Science and Nutrition curriculum develops: 'Scientifically informed, curious and independent thinkers who understand the impact of food on health, society and the wider world.'*

***Intent: Curriculum Intent – WJEC Level 3 Alternative Academic Qualification Food Science and Nutrition***

Our WJEC Level 3 Alternative Academic Qualification in Food Science and Nutrition curriculum is designed to develop scientifically informed, curious and independent students who understand the complex relationship between food, nutrition, health and society. Through the study of food science, nutrition and practical applications, students develop the knowledge and skills to explore how food is produced, processed, prepared and consumed, and how these factors influence nutritional value, quality and health.

The curriculum is carefully sequenced to build secure knowledge and understanding of the properties and functions of nutrients, food commodities, food production and processing, food safety, nutrition and the factors that influence dietary choices. Students develop their understanding of scientific principles and learn to apply this knowledge to authentic food and nutrition contexts. Increasingly sophisticated use of scientific terminology, evidence and data enables students to communicate their ideas clearly and construct well-supported conclusions.

A strong emphasis is placed on applying knowledge rather than simply recalling information. Students investigate how scientific principles influence the properties, nutritional value, safety and quality of food, considering the impact of processing and production methods. They develop the ability to interpret nutritional information, analyse evidence, solve food-related problems and evaluate the suitability of food products for different individuals and groups. This enables students to make meaningful connections between classroom learning and the food choices, technologies and challenges they encounter in everyday life.

The curriculum promotes independent enquiry and research through practical investigations, extended tasks and the application of scientific knowledge to real-world scenarios. Students are encouraged to question, hypothesise, investigate and evaluate, developing the critical-thinking and research skills required for further academic study and employment within food science, nutrition, health, hospitality and related industries. Practical work provides opportunities for students to test scientific concepts, develop food preparation skills and evaluate outcomes using evidence.

Health and wellbeing are central to the curriculum. Students explore the role of nutrients in the human body and consider how nutritional requirements vary according to factors such as age, lifestyle and individual needs. They develop an informed understanding of healthy eating and the wider influences on food choice, enabling them to evaluate nutritional claims and information critically and distinguish evidence-based understanding from opinion or misinformation.

Literacy, numeracy and scientific literacy are embedded throughout the course. Students develop their ability to interpret data, use calculations and nutritional information accurately, read and evaluate scientific sources, and

construct clear evidence-based responses. Retrieval practice, explicit vocabulary instruction, questioning and regular opportunities to apply knowledge ensure that learning is retained and progressively developed.

Ultimately, the qualification aims to equip students with the knowledge, confidence and independence to understand food beyond its preparation and consumption. Students leave the course able to apply scientific thinking to food and nutrition, evaluate evidence, solve problems and appreciate the significant role that food science and nutrition play in individual health, the food industry and wider society.

**Why study Food Science and Nutrition at The Sixth Form at Ridgewood?**

- Studying WJEC Level 3 Food Science and Nutrition will provide an excellent introduction to the food, health and nutrition sector.
- It is ideal for students who are interested in the science of food production, food safety, and the nutritional requirements of different individuals.
- The qualification is equivalent to one A Level and is highly valued by universities and employers. It can lead to a wide range of higher education courses or career opportunities in food science, nutrition, dietetics, public health, and catering industries.
- Our experienced teaching team includes subject specialists with professional backgrounds in food, nutrition and health, and we work closely with local organisations and universities to enhance your learning experience.

**What topics will I study in this subject?**

| Topic | What this means |
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| Unit 1: Meeting nutritional needs of specific groups | In this unit, students explore the nutritional requirements of different groups, such as children, older adults, athletes and individuals with specific dietary needs. Students learn how to plan balanced meals, adapt recipes, and create dishes that meet these needs. This unit also develops students' understanding of healthy eating, diet-related conditions, and the impact of lifestyle choices on nutrition. |
| Unit 2: Developing practical food production skills | This unit focuses on building students' practical abilities in preparing, cooking and presenting food. They will develop essential technical skills such as knife skills, cooking methods, food preparation techniques and time management in the kitchen. Students learn how to follow recipes accurately, adapt dishes, and apply a range of professional skills required in the food industry. |
| Unit 3: Principles of food hygiene and food safety in food production | Students gain a strong understanding of how to handle, store and prepare food safely. They explore food safety legislation, the causes and prevention of foodborne illness, safe working practices, and the importance of maintaining hygienic kitchen environments. This unit provides the knowledge needed to apply safe food-handling skills in both practical lessons and future professional settings. |

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| Unit 4: Experimenting to solve Food production problems | In this unit, students investigate the scientific principles behind food and cooking. They conduct experiments to explore how different ingredients, processes and conditions affect food quality. Students learn to test hypotheses, analyse results, and use scientific reasoning to improve recipes or solve common food production issues. This unit develops problem-solving and analytical skills essential for food science pathways. |
| Unit 5: Current Issues in food science and nutrition (optional) | This optional unit allows students to explore modern challenges affecting the food industry and wider society. Topics may include sustainability, food poverty, global food supply, environmental impact, and emerging food technologies. Students research contemporary issues, evaluate their significance, and consider how they influence consumer choices, food policy and the future of the food sector. |

**What skills will I need in this subject?**

| **Skill** | **What this skill involves in this subject** |
|---|---|
| Scientific and analytical skills | You will learn to carry out food experiments, analyse results, and apply scientific reasoning to explain outcomes |
| Research skills | You will investigate current issues in nutrition and food science using a range of reliable sources and justify your conclusions. |
| Practical and technical skills | You will develop hands-on skills in food preparation, hygiene, and safe working practices in a controlled environment. |
| Evaluative skills | You will assess the impact of dietary choices and food production processes and make informed recommendations based on evidence. |

**What will my lessons involve?**

- You will engage in both theoretical and practical lessons where you will learn about the science of food and nutrition.
- Lessons will include a mix of demonstrations, experiments, group discussions and independent research tasks.
- You will develop practical food preparation and safety skills in a professional-style environment.
- Some sessions will focus on scientific principles, data analysis, and nutrition planning to prepare you for assessments.
- Guest speakers and industry links will enrich your understanding of careers within food and nutrition sectors.

**What will my independent study involve?**

- You are expected to dedicate at least one hour of independent study for every hour of taught time.
- Independent work will include researching nutritional case studies, practising practical skills, and revising for assessments.
- You will complete written coursework and practical evaluations, building a strong portfolio of evidence.
- Managing time effectively and meeting deadlines is crucial for success on this course.

**How will I be assessed?**

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| Percentage exam assessment: 50% | Percentage coursework assessment: 50% |

| **Assessment** | **Details of assessment** |
|---|---|
| Unit 1 Assessment | Nutritional needs across the life stages<br>Written examination<br>External<br>25% |
| Unit 2 Assessment | Developing practical food production skills<br>Controlled assessment<br>Internal<br>25% |
| Unit 3 Assessment | Principles of food hygiene and food safety in food<br>Written examination<br>External<br>25% |
| Option module Assessment 4 | Experimenting to solve food production problems<br>Controlled assessment<br>Internal<br>25% |
| Option module Assessment 5 | Current issues in food science and nutrition<br>Controlled assessment<br>Internal<br>25% |

**How do I know this is the right course for me?**

- You are interested in the science of food, nutrition and health.
- You enjoy both practical and scientific study and are motivated to work independently and collaboratively.
- You can manage coursework deadlines and thrive in both written and practical assessments.
- This course is ideal if you are considering a career in food science, nutrition, dietetics, public health, hospitality or catering.