

Subject:	Food Technology Intent:
<h1>Food Science and Nutrition</h1>	<p>An understanding of food science and nutrition is relevant to many industries and job roles. Care providers and nutritionists in hospitals use this knowledge, as do sports coaches and fitness instructors. Hotels and restaurants, food manufacturers and government agencies also use this understanding to develop menus, food products and policies that support healthy eating initiatives. Many employment opportunities within the field of food science and nutrition are available to graduates. This qualification is designed primarily to support learners progressing to university. It has been designed to offer exciting, interesting experiences that focus learning for 16 - 19-year-old learners through applied learning, i.e. through the acquisition of knowledge and understanding in purposeful, work-related contexts, linked to the food production industry. This qualification would complement learning related to health and social care or sport, where an understanding of nutrition and diets would be useful to care managers and sport fitness instructors</p>

## The Big Questions...

Year 12	Year 13
<p><u>Unit 1</u> Why do we need to follow food hygiene regulations? What is cross contamination? How do you know something is cooked and safe to eat? What are nutrients? Why do we need them? Is any food “bad” for us? How does loss of mobility affect what I need to eat? Should we eat more in the winter? How can you make sure that when you cook a meal, everything is ready on time? How can you make a dish look attractive? Learners will gain an in depth understanding of food science and nutrition and the impact of food and nutrition on the lives of individuals and on society today. They will gain a sound understanding of how to identify hazards and minimise risks when producing food to meet the nutritional needs of specific groups. They will demonstrate detailed knowledge of the different properties of nutrients, how the body processes nutrients and how nutritional needs change over time. They will learn how to apply their understanding and knowledge to plan complex dishes and in-depth dietary plans to meet the nutrition needs of specific individuals. Learners can carry out practical tasks (including experimental work), competently and confidently demonstrating flair and precision and analyse results and draw sound conclusions from their findings.</p>	<p><u>Unit 4</u> How do I write an effective hypothesis to prove or disprove using research? What are the current food issues today? How can I ensure the information I gather is accurate and reliable? What impact do current issues have on the health of consumers? Who are the stakeholders involved in these issues? How is the environment affected? What are the ethical issues? Learners will be able to use a range of generic skills e.g. research, identification of key factors, analysis, planning and evaluation independently and with ease and accuracy, in order to address food safety scenarios in a range of environments, and/or to produce an in depth research project on a chosen issue within food science and nutrition. Learners will at every opportunity be able to identify and transfer accurately in-depth knowledge and understanding from one task to another, thus clearly demonstrating using learning in an integrated and synoptic way.</p> <p><u>Unit 2</u> Why should we follow storage recommendations on food products? Why do menus need to highlight products containing nuts? Why should vegetarian dishes be prepared away from those containing meat? Why are temperature probes used in the food industry? How can you be sure the food you eat is safe? Learners will develop an understanding of hazards and risks in relation to the storage, preparation and cooking of food in different environments and the control measures needed to minimise these risks. From this understanding, learners will be able to recommend the control measures that need to be in place, in different environments, to ensure that food is safe to eat. This unit will allow learners to develop their understanding of the science of food safety and hygiene; essential knowledge for anyone involved in food production in the home or wishing to work in the food industry. Again, practical sessions will support the gaining of theoretical knowledge and ensure learning is a fun. Imaginative and tactile experience.</p>

What skills will I develop?
<p>This course enable the learner to demonstrate an understanding of the science of food safety, nutrition and nutritional needs in a wide range of contexts, and through on-going practical sessions, to gain practical skills to produce quality food items to meet the needs of individuals. The second mandatory unit will allow learners to develop their understanding of the science of food safety and hygiene; essential knowledge for anyone involved in food production in the home or wishing to work in the food industry. Again practical sessions will support the gaining of theoretical knowledge and ensure learning is a fun. Imaginative and tactile experience. Each unit within the qualification has an applied purpose which acts as a focus for the learning in the unit. The applied purpose demands authentic work related learning in each of the available units. It also requires learners to consider how the use and application of their learning impacts on themselves, other individuals, employers, society and the environment. The applied purpose will also enable learners to learn in such a way that they develop:</p> <ul style="list-style-type: none"> <li>• skills required for independent learning and development</li> <li>• skills to ensure their own dietary health and well being</li> <li>• a range of generic and transferable skills</li> <li>• the ability to solve problems</li> <li>• the skills of project based research, development and presentation</li> <li>• the ability to apply mathematical and ICT</li> </ul>

How will I be assessed?
<p>The Food science and nutrition level 3 Diploma is divided into 4 parts. Each contributes 25% of the total diploma grade.</p> <p><b><u>Year 12 Unit 1 (2 parts)</u></b>  <b>Unit 1- Meeting Nutritional Needs of Specific Groups</b>-This is both internally and externally assessed.  <b>Unit 1 coursework - Controlled assessment 25%</b> (This includes both theory and practical elements)  <b>Unit 1 Theory exam 25%</b></p> <p><b><u>Year 13</u></b>  <b>Unit 4 Current Issues in Food Science and Nutrition - Controlled assessment 25%</b>  <b>Unit 2 Ensuring Food is safe to Eat - External exam 25%</b></p>

skills • the fundamental ability to work alongside other professionals, in a professional environment • the ability to apply learning in vocational contexts

### What great resources can I use?

- <https://www.senecalearning.com> an excellent online revision tool
- <https://www.foodafactoflife.org.uk/> many useful learning resources and power points on a wide range of topics
- WJEC Certificate in Food Science and nutrition. Anita hull Jillian Bryant – this book has been written specifically to cover all sections of the course.  
OCR Home Economics for AS Food, Nutrition and health today, Alexis Rikus, Bev Saunder.  
Food Science (Food Science Texts Series): Fifth Edition (Food Science Text Series) by Norman N.Potter and Joseph H. Hotchkiss An excellent resource for both Food Science and Food Safety.

### Three ways that parents/carers can help...

1. Encouraging your son/daughter to cook at home
2. Discuss the foods you are eating as a family, the nutrients they contain and sensory attributes. Also to give them feedback on what you like about the products they have prepared in school and how they could improve them further to add more skills.
3. By discussing tasks your son/daughter is carrying out for homework and contacting the department whenever you need additional support or have questions about the course  
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