

Level 3 Food Science and Nutrition
Y11 into Y12 preparation
pack



Name

Welcome to Food Science and Nutrition

- *I am very pleased that you have chosen to take Food Science and Nutrition at Alevel in September. The pack is designed to give you a flavour of what this qualification is all about. The pack will introduce you to some core course information and processes, it will give you some sample exam question and the type of coursework brief you may be asked to complete.*
- Any question that you have or if you are stuck please email me at laura.Thomas@Swindon-academy.org

Food is an excellent choice of subject, no matter what you go on to do next...

Q: Why is Food a great subject to study?

A: Because it can take you on to a huge amount of different careers in the future, it will support you in continuing with a healthy lifestyle and it can be beneficial in working alongside subjects such as Science.

This pack has been designed to give you a taste of what food science and nutrition is all about, and to inspire you to see what you are going to be working on next year.

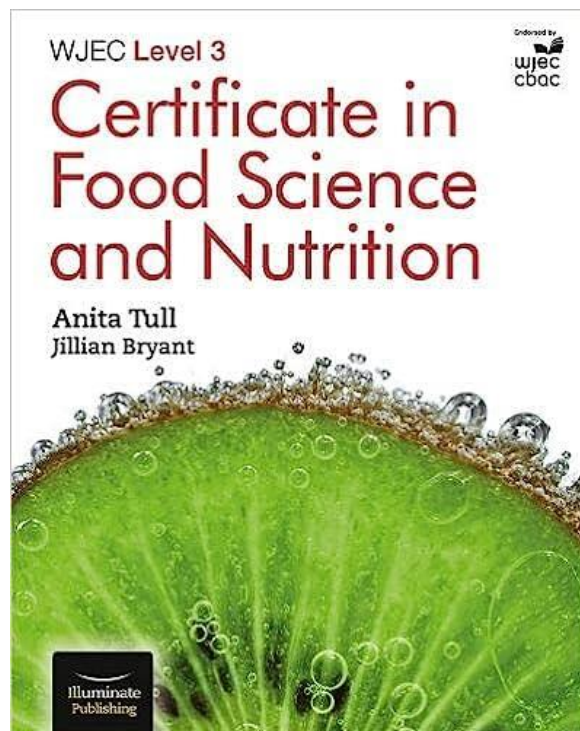


Course Information

At SA we follow the course WJEC food science and nutrition

There is a brief overview of the topics you will study in the table below.

If you would like more information about the topics or how you will be assessed, you can have a look on the WJEC website.



AUTUMN	SPRING	SUMMER
<p>YEAR 12</p> <p>Unit 1 Meeting Nutritional needs of Specific Groups Nutrition theory and related practical work. Focused complex skills practical work.</p> <p>Unit 2 Ensuring Food is Safe to Eat Relate theory to practical work</p>	<p>Unit 1 Meeting Nutritional needs of Specific Groups Nutrition theory Meal planning</p> <p>Jan – Feb half term: Practise practical brief (<u>not</u> the scenario for the real task)</p> <p>Feb – April: Begin 9½ chosen brief (option A or B)</p> <ul style="list-style-type: none"> • Planning 3 hours • Practical exam 3½ hours • Evaluation 3 hours <p>Mock unit 1 Examination</p> <p>Unit 2 Ensuring Food is Safe to Eat relate to theory and practical work</p>	<p>Unit 1 Meeting Nutritional needs of Specific Groups Nutrition theory</p> <p>Complete Unit 1 practical brief, complete Mark Record sheet and observation sheet. SEND TO WJEC FOR MODERATION BY 15 MAY</p> <p>REVISION FOR UNIT 1 Meeting Nutritional needs of Specific Groups WRITTEN PAPER: JUNE</p> <p>After exams: Prepare research for optional brief Unit 3 or 4</p>
<p>YEAR 13</p> <p>Unit 3 Experimenting to Solve Food Production Problems OR Unit 4 Current Issues in Food Science and Nutrition planning Possible practise task as a group (not the brief for the real task) Oct – Dec: complete chosen brief for Unit 3 or 4 Unit 3 = 12 hours Unit 4 = 14 hours</p> <p>Hand in completed Unit 3 or 4 task. Complete Mark record sheet and Observation sheet for any practical work SEND TO WJEC FOR MODERATION BY 15 MAY</p>	<p>Unit 2 Ensuring Food is Safe to eat Theory and practical work Mar – April: Practise task as a group 'Easy Eats'</p> <p>Unit 1 Meeting Nutritional needs of Specific Groups theory and practise papers if retaking exam in June</p>	<p>Unit 2 Ensuring Food is Safe to eat</p> <p>1st. MAY BEGIN Unit 2 Ensuring Food is Safe to eat 8 HOUR TASK Complete in 3 weeks</p> <p>UNIT 3 OR UNIT 4 TO WJEC FOR MODERATION BY 15 MAY SEND UNIT 2 FOR MARKING TO WJEC BY 1 JUNE</p> <p>REVISION FOR UNIT 1 Meeting Nutritional needs of Specific Groups WRITTEN PAPER: JUNE if retaking exam</p>

Activity 1: Nutrition and the Eatwell Guide

L3 WJEC Food Science and Nutrition – Transition Activities

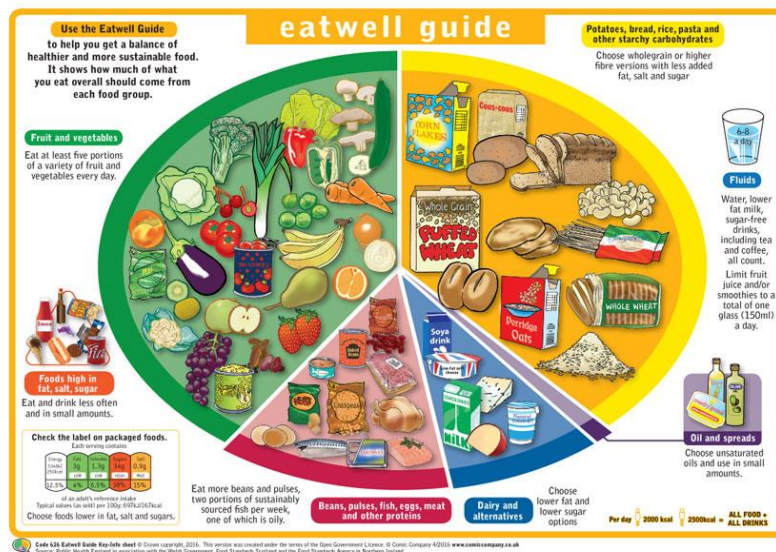
Before the course starts you need to carry out the research and tasks below. Nutrition is a key part of the course and you will need to have a clear understanding of nutrients and healthy eating. Watch the video link to learn more about what is meant by a healthy diet. Explain what a healthy diet is and the key elements of the Eatwell Guide.

<https://www.youtube.com/watch?v=1tJYcNt6Bpk>

Explore the concept of energy intake, expenditure and energy balance.

<https://www.youtube.com/watch?v=d-5w67NAOIo>

Once you have watched these videos, explain what a healthy diet is, this should be at least half a page A4 long. Then move onto explaining in detail the key elements of the Eatwell Guide, including images where necessary. This should be one A4 page.



Activity 2: Food Poisoning

Task 2: Use the internet to research at least 7 food poisoning bacteria. You will need to note the most common types of food bacteria, the symptoms, sources (where it might be found), how it is controlled and on-set time of each bacteria. Also, discuss the difference between pathogenic and non-pathogenic bacteria.

(Present your findings in a table format).

<https://youtu.be/flxmB8NKMzE>

Activity 3: Food Presentation

Task 3: Food Presentation: It is important to understand how to layout food products in order to improve their visual appearance. Use the following websites and videos to investigate what makes food look good. You are welcome to search for other tips and guidance on food presentation techniques.

This is particularly important, as you will be required to photograph the products you make. Write a list of tips and ideas for successful food presentation.

<http://www.howtocookgourmet.com/foodpresentationtips.html>

https://www.youtube.com/watch?v=Udzs_MPNpMQ

<https://www.youtube.com/watch?v=9YBnczqciHl>

<https://www.youtube.com/watch?v=r2tul8uyzA8>

<https://www.youtube.com/watch?v=akk4aG5nnoc>

Activity 4: Practice NEA Task

- Task 4: Undertake the following and present your work on a single A3 sheet in mind map format.
- Photograph your practical work and include this on the A3 sheet.
- Select one of the scenarios below and complete the activities
Nursery scenario The cook at your local children's nursery (ages 2 to 5) has received comments from parents that the current menu is both unhealthy and repetitive. The cook is, therefore, planning to make changes to the menu to ensure it is healthy and appealing to the children.

OR

- Elderly Residential Home The cook at a local Elderly residential home has received comments that the current menu is unimaginative. The cook is therefore planning to make changes to the menu to ensure that dishes meet the nutritional needs of the elderly and have traditional appeal.
- (i) Review the nutritional considerations that the cook will need to include when planning a monthly menu for this target group.
- (ii) Plan a weekly menu; this must include breakfast, mid-morning snack, lunch, mid-afternoon snack and tea.
- (iii) Plan, prepare and cook a whole day's menu and review the nutritional content of your proposed one-day menu. You will need to take photos of the dishes
- (iv) Evaluate your finished outcomes referring to their sensory characteristics and appeal for the target group
- (v) Discuss whether your choices reflect current nutritional guidelines for target group and suggest improvements or alternatives to your menu choices

Recommended websites, apps, and podcasts

Suggested reading list (these are not a compulsory purchase)

- Food magazines and those related to diet and fitness
- Textbooks
- ➤ Bender, D. (2002). An Introduction to Nutrition and Metabolism (3rd Ed). Oxford, UK:
 - Taylor and Francis Ltd
- ➤ Brown, A.C. (2010). Understanding Food: Principles and Preparation (4th Ed).
 - USA:Wadsworth Publishing
- ➤ Campbell J (et al) (2011) Practical Cookery Level 3 Hodder Education
- ➤ Cesarani V (2002) Advanced Practical Cookery: A Textbook for Education and Industry Hodder Education
- ➤ Drummond, K.E. and Brefere, L.M. (2009). Nutrition for Foodservice and Culinary Professionals (7 th Ed). Hoboken, NJ, USA
- ➤ Fox and Cameron's Food Science, Nutrition and Health (7TH edition) Hodder Arnold
- Publication
 - ➤ Foskett D, Campbell J (2008) Practical Cookery (11th Ed) Hodder Education
 - ➤ John Wiley and Sons Foskett D, Cesarani V, (2007) Cesarani and Kinton's The Theory of Catering Dynamic Learning
- ➤ Food Standards Agency. (2008). Manual of Nutrition (11 th Ed). London, UK:
 - Stationary Office
- ➤ Jeukendrup, A and Gleeson, M. (2004). Sport Nutrition: An Introduction to Production and Performance. Leeds, UK: Human Kinetics
- ➤ Smith, M. and Morton, D. (2001). The Digestive System: Systems of the body. London,
 - UK:Churchill Livingstone
- Look out for used textbooks on Amazon and EBay as you can often grab a bargain!

Recommended websites, apps, and podcasts

Recipe books

- Blumenthal H. Heston Blumenthal at home. Bloomsbury publishing: October 2011
- Masterchef Kitchen Bible
- Masterchef at home
- Mary berry Cook books

Recommended Television shows/videos to watch – good to watch on iplayer

- Come dine with me – Channel 4
- Food Inspectors – BBC 1
- Great British Bake off – BBC2
- Masterchef- BBC1
- Heston Blumenthal – Channel 4
- Jimmy's Food Factory – BBC1

Useful websites

- BBC Health: www.bbc.co.uk/health/healthyliving
- British Nutrition Foundation: www.nutrition.org.uk
- Department for Health: www.dh.gov.uk
- Food and Drink Federation: www.fdf.org.uk
- Food Standards Agency:
www.food.gov.uk/aboutus/publications/industrypublications/
- NHS: <http://www.nhs.uk/livewell/healthy-eating/Pages/Healthyeating.aspx>
- Physical Activity and Nutrition Wales:
www.physicalactivityandnutritionwales.org.uk
- Vegetarian Society: www.veg.soc.org.uk
- www.bbc.co.uk/food/recipes
- www.bbcgoodfood.com
- www.annabelkarmel.com
- www.foodsafety.gov
- <http://homefoodsafety.org/app>
- CORE: <http://www.corecharity.org.uk/>
- Health Development Agency: www.nice.org.uk

Summary of programme of study

Unit 1 Meeting Nutritional Needs of Specific Groups (Mandatory – Y12)

- The purpose of this unit is to develop an understanding of the nutritional needs of specific target groups and plan and cook complex dishes to meet their nutritional needs. Through this unit, you will gain an understanding of how to identify hazards and minimise risks when producing food to meet the nutritional needs of specific groups. You will learn about different types of nutrients and how those are used by the body to ensure you can plan a balanced nutritious diet. You will develop advanced skills for preparing, cooking and presenting nutritious dishes that meet specific needs.

Unit 2 Ensuring food is safe to eat (Mandatory – Y13)

- In this unit you will learn about food safety, how micro-organisms can affect food safety, how some foods can cause ill health in people that have intolerances or allergies and what controls need to be in place to minimise the risks of food causing ill health. This learning will allow you to recommend the safety controls that should be in place in different environments where food is stored, prepared and cooked.

Unit 3 Experimenting to Solve Food Production Problems (either Unit 3 or 4 – Diploma)

- The aim of this unit is for learners to use their understanding of the properties of food in order to plan and carry out experiments. The results of the experiments would be used to propose options to solve food production problems.

Unit 4 Current issues in consumer food choice (either Unit 3 or 4 – Diploma)

- Through this unit you will have the opportunity to develop knowledge and understanding of issues are currently affecting consumer food choice. Through individual and group projects, you will learn about a range of consumer food choice issues and how key stakeholders are responding to these issues. The projects will also help you to develop the skills needed to effectively plan and carry out an individual research project.