



Sixth Form Preparation for Success

Welcome to Food Science and Nutrition

WJEC Food Science and Nutrition 4563



Introduction

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. This work will allow you to begin to

understand the basics of nutrition, and to gain an insight into the different topics you will cover.

Part I – Y11 into 12 Food Science and Nutrition Specific Bridging Work

To be completed May – Sept

Remember that prizes will be awarded for 'exceptional' work that demonstrates effort above expected !

- a) Investigate places of interest** – Given the circumstances, you may not be able to physically visit the places suggested below so try the websites and email their customer services with any questions – people love to hear from young people who show an interest in their line of work!

Eating out!

Whenever you go out for food, take notice! Look at the menu on offer, how is the food presented, how it is served, the combination of flavours and textures, the cost and the quality of ingredients. Food is everywhere, there are loads of different places that you may visit without even thinking about it. This could include cafes, restaurants, fast food outlets, street food, hotels and pubs.

Farm shop

Visit a farm shop and find out what they sell and ask where their food comes from. Find out the advantages of buying and selling local produce.

Food market

Visit a food market or food festival. Sheffield has Sheffield Food Festival (sheffieldfoodfestival.co.uk) which is a large food event in the centre of Sheffield. There is the Great Yorkshire Vegan Festival in Leeds. There are many others locally and around the country. They give a good opportunity to look at what different foods are on offer, and to find interesting ones (I found locust flour at the last Sheffield Food Festival!).

Talk to people!

It is difficult to get access to food production premises due to hygiene and safety. However, there are many people who work within the food, health and nutrition industry – can you find one? It could be a personal trainer, a food production worker, a restaurant/hotel worker or a nurse. Find out about their job role, who they work with, what their work day typically looks like and how a knowledge of food and nutrition helps them in their role.

b) Wider reading

<https://www.ifst.org/lovefoodlovescience/resources> - this website provides easy to understand information about a range of food science terms, and also includes simple food experiments you could try at home

You could watch any of the following programmes:

Inside the food factory (BBC)

Food Inspectors (BBC)

MasterChef (BBC)

Veganville (BBC)

Great British Menu (BBC)

Inside the supermarket (BBC)

Ramsay's Kitchen Nightmares (Channel 4) – Try to find a clean version!

Inside Iceland: Britain's Budget Supermarket (Channel 5)

British Nutrition Society – Talks

Visit <https://www.nutrition.org.uk/bnf-talks.html> and watch some of the talks on various issues in food and nutrition

Magazines

Some of the most useful magazines are the free ones you can pick up in supermarkets: they have recipes, new products and often have food science information. There are other magazines such as 'Olive', 'easycook' and 'goodfood' that contain similar information.

Film – Supersize Me (2004)

This was one of the first food documentaries to hit the mainstream. It followed a month-long experiment of eating McDonalds for every meal.

c) Compulsory task**Unit 1 – Nutrition for specific groups**

A large part of this unit is being able to cook meals for specific groups (e.g. children) showing complex and high level cooking skills, excellent food presentation and outstanding personal hygiene.

Task

Cook! Keep a log of the meals you cook/meals you help cook. If you can, add a photo. You could keep a written log or an electronic log. State why you cooked the meal you did (using up ingredients, cost, nutrition etc.), and list the skills and/or the preparation techniques you used. If you make the same meal more than once, state how you improved it from the last time you made it. Before you hand in your work, write down three things you would like to learn to cook during your course.

Unit 2 – Ensuring food is safe to eat

This unit involves understanding how to prepare food hygienically, and considering the risks involved with food safety.

Task

Produce a leaflet to be given out to the employees of a restaurant. In it you need to give information about:

- Personal hygiene in the kitchen and restaurant
- Protective clothing worn by food handlers
- Common types of food poisoning, their symptoms and causes

Food.gov.uk

www.dh.gov.uk

[https://www.nhs.uk/Livewell/homehygiene/Documents/ICNA-TRAINING-RESOURCE-BOOKLET\[1\].pdf](https://www.nhs.uk/Livewell/homehygiene/Documents/ICNA-TRAINING-RESOURCE-BOOKLET[1].pdf)

Unit 3 – Using food science to solve food production problems

In this unit you will use your understanding of the properties of food to in order to plan and carry out experiments to solve food production problems.

Task

Investigate what the following food science terms mean, and explain where they might be found within food (e.g. a dish, a preparation method such as whisking).

- Denaturation
- Gelatinisation
- Emulsification
- Caramelisation
- Dextrinization

<https://www.ifst.org/lovefoodlovescience>

<https://www.foodafactoflife.org.uk/14-16-years/food-science/>

d) Stretch!

The manager and cook of a local children's nursery are concerned that the children are not eating enough fruit and vegetables from the dishes on offer to them. You have been asked to plan and prepare a range of main course dishes that would appeal to the children in the nursery. You will need to find ways of encouraging the children to consume more fruits and vegetables and justify why you have chosen your menu. Where possible, cook one of your dishes and take a photo. Present it with a letter to the nursery advising why you feel the nursery cook should include it on his/her weekly menu.

Part II - Year 12 Head Start! for completion June – September

Section under construction. Content will be added ready for you to view in June'.