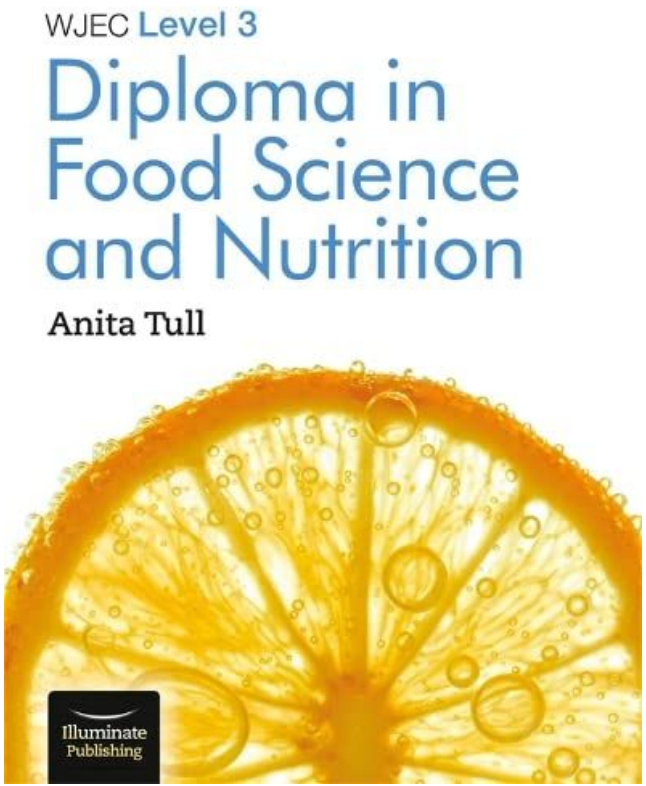
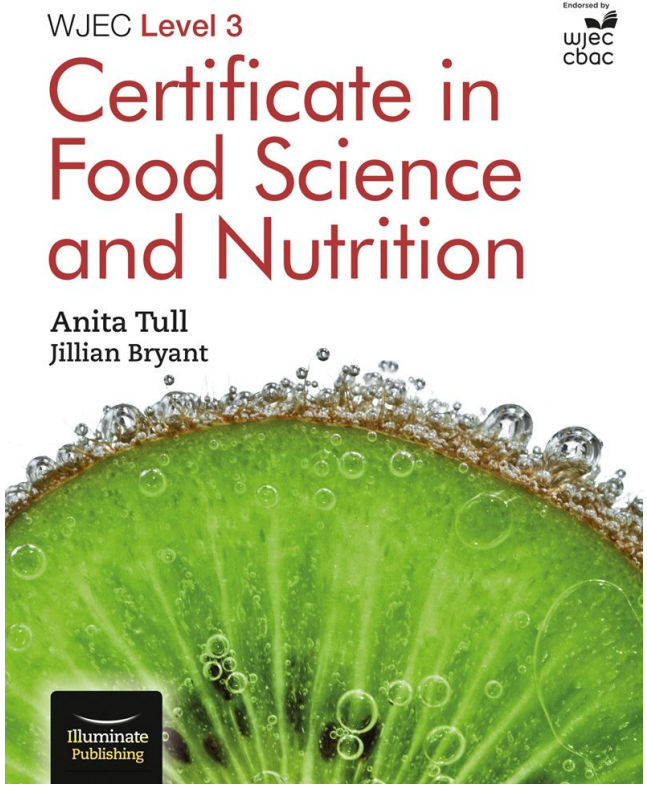
Welcome to Food Science and Nutrition





OVERVIEW

Year 12

Theory

Unit 1 Meeting Nutritional needs of Specific Groups Nutrition theory and related practical work.

Focused complex skills practical work.

Unit 2 Ensuring Food is Safe to Eat Relate theory to practical work

Coursework

Jan – Feb half term: Practise practical brief (not the scenario for the real task)

Feb – April: Begin 9½ chosen brief (option A or B) • Planning 3 hours • Practical exam 3½ hours • Evaluation 3 hours Mock unit 1 Examination

Year 13

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

1st MAY BEGIN Unit 2 Ensuring Food is Safe to eat 8 HOUR TASK Complete in 3 weeks

What will I study?

You will complete three units: two mandatory and one optional, over the two years.

YEAR 12

The first mandatory unit:

Unit 1 Meeting nutritional needs of specific groups will enable you to demonstrate an understanding of the science of food safety, nutrition and nutritional needs in a wide range of contexts, and through ongoing practical sessions, to gain practical skills to produce quality food items to meet the needs of individuals.

What is Unit 1?

Meeting Nutritional Needs of Specific Groups

You will gain an understanding of how to identify hazards and minimize 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 skills for preparing, cooking and presenting nutritious dishes that meet specific needs.

How is Unit 1 assessed?

A 90 minute written exam will check your knowledge and understanding of this unit at the end of Year 12. There is also an internal assessment which allows you the chance to showcase your ability to plan and prepare a balanced and nutritious menu.

What will I study?

You will complete three units: two mandatory and one optional, over the two years.

YEAR 13

The second mandatory unit:

Unit 2 Ensuring Food is Safe to Eat will allow you to develop your 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 tactile experience.

What is Unit 2?

Ensuring Food is Safe to Eat

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 minimize the risks of food causing ill health. This understanding will allow you to recommend the safety controls that should be in place in different environments where food is stored, prepared and cooked.

How is Unit 2 assessed?

You will have an 8 hour timed assessment to bring together your knowledge, understanding and skills learned throughout Unit 2. You will apply these by responding to information provided in a scenario

What will I study?

You will complete three units: two mandatory and one optional, over the two years.

YEAR 13

Studying one of the two optional units

Unit 3 Experimenting to Solve Food Production Problems

OR

Unit 4 Current Issues in Food Science and Nutrition will allow you the opportunity to study subjects of particular interest or relevance to you, building on previous learning and experiences

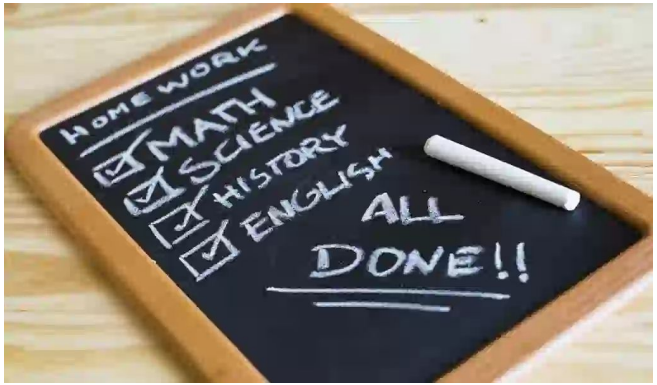
What is Unit 3 and 4?

You will complete **one** of the following two units;

Unit 3: Experimenting to Solve Food Production Problems	**Unit 4: Current issues in Food Science and Nutrition**
This unit will provide you with an understanding of the scientific properties of food and how these properties contribute to the changes that occur in food. You will use this learning to plan and carry out experiments with different types of food. By carrying out these experiments, you will be able to propose options to solve food production problems	Through this unit you will have the opportunity to develop knowledge and understanding of issues that are currently affecting food choice and food availability. Through individual and group projects, you will learn about how key stakeholders within the food industry are responding to changes in food related habits. The projects will also help you to develop the skills needed to effectively plan and carry out an individual research project.

What we expect from you...

- Complete weekly homework (1 hour +)
- Complete prep work for lessons.
- Bring ingredients for every practical, you are expected to provide these and adapt them to suit your dietary needs
- Try new foods and taste test (exceptions to dietary needs!)
- No nail varnish or nail extensions for practical assessments
- Deadlines to be met on time.



Theory lessons..

You will need to write your own class notes. These notes can be used in the UNIT 1 coursework.

You are not allowed to use the internet or the textbook in the coursework so it is vital that you are getting down all necessary information.

If you miss a lesson it is essential that you catch up on missed work.

https://docs.google.com/document/d/1CwjxLRY8pZC-Bpl_dsONGPbIMiKxHG8Dr5NXufkn7RA/edit

Student area example

What career opportunities can this lead to?

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 that support healthy eating initiatives. Many employment opportunities within the field of food science and nutrition will be available to you if you study this qualification.

Careers

Food technologist
Advertising
Food Journalist
Food photographer
Nutritional therapist
Product/process development scientist
Food development designer
Quality manager
Regulatory affairs officer
Scientific laboratory technician
Chef
Production manager
Research scientist (life sciences)
Toxicologist
And More!

Dishes you could make:

Pastry – puff, filo, pate sucree, choux, hot water crust Samosas, strudels, spring rolls, tart au citron, fruit tartlets, savoury pie, jalousie, cheese gougeres, quiche, chocolate tart, custard tart, tarte tatin, millefeulles.

Stocks and Soups – home-made chicken/vegetable stock, soups showing vegetable cuts, leek and potato, minestrone, French onion. Cold and Hot soups.

Bread – enriched, shaping, focaccia, naan, flat bread, ciabatta rolls, grissini sticks, panettone.

Sauces – reduced, roux, béchamel, hollandaise, crème anglaise

Meat – pot roasting, roasting, casseroles, carbonade of beef, stroganoff, curry, stuffed pork tenderloin, pates, steak and mushroom pie, sweet and sour ribs.

Chicken – boning, make stock for soups, stuffing and coating, chicken kiev, curries.

Fish – filleting, stuffed and rolled, whole fish dishes, fish pie, thai fish cakes, salmon mousse, salmon en croute, en papillotes, terrine.

Vegetables – turning, puree, cuts, soups, lasagne, stuffed, potato croquettes, gratin dauphinoise. Vegetable side dishes/accompaniments;

Pasta and rice – fresh with flavours, shapes, ravioli, risotto.

Desserts – panna cotta, tarte au citron, meringue desserts - roulade, chocolate fondant, jalousie, gelatine cheesecakes and mousses, profiteroles, macaron dessert, genoise sponge.

Accompaniments - Spun sugar, tuile biscuits, parmesan thins, biscoti, seeded crackers, complex garnishes from fruit

UNIT 1: An idea of the dishes you will cook for your coursework in Year 12

List of High skilled dishes:

Starter: - Homemade pasta and a sauce (filled pasta, tricolo pasta) - Spinach roulade - Chicken liver pate - Soup with particles: parmesan truile - Chicken wings (portioned from a whole chicken) with marinade, spiralizer accompaniments - Fish cakes: Moulding, fileting, pane, shallow frying, mayonnaise to serve - Homemade mayonnaise: aioli - Scallops and samphire - Cheese soufflé - Complex breads

Main: - Boned and stuffed chicken: Kiev with pane - Chicken Ballantine: Portioning, rolling, stuffing, poaching, sautéing, accompaniments (turned or spiralizer vegetables and sauces) - Duchess/dauphinoise/hassle back/fondant/turned potatoes - Fish fillet: En papeout, filleting fish, knife skills (Julienne, brunoise) - Chicken pie: Portioning Chicken, homemade stock, puff pastry, free standing with short crust sides, knife skills with vegetable prep, possible roux sauce - Fish cakes: Moulding, fileting, pane, shallow frying, mayonnaise to serve - Fish fingers: homemade sauces - Chicken goujons: portioned from a whole chicken - Pea puree - Beef wellington (puff pastry) - Chutneys - Puff pastry and vegetable wellington - Burger: mincing, moulding, brioche bun? - Vegetable crisps/game crisps - Noodles (made from scratch), portioned chicken, knife cuts of vegetables.

Dessert: - Profiteroles - Hazelnut brittle - Caramel basket - Panna-cotta - Mini meringue - Fondant (chocolate) - Soufflé - Fruit coulis - Ice creams - Sorbets - Steamed cakes - Individual free standing cheesecake (with gelatine) - Poached pear - Spun sugar - Custard

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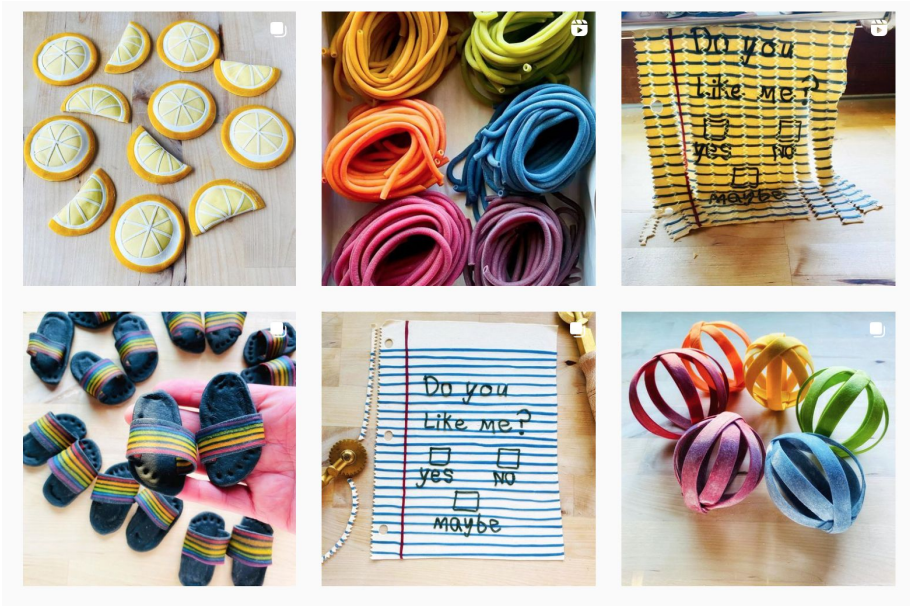

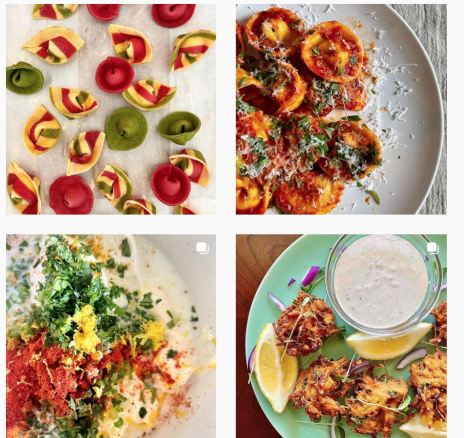


QUESTIONS

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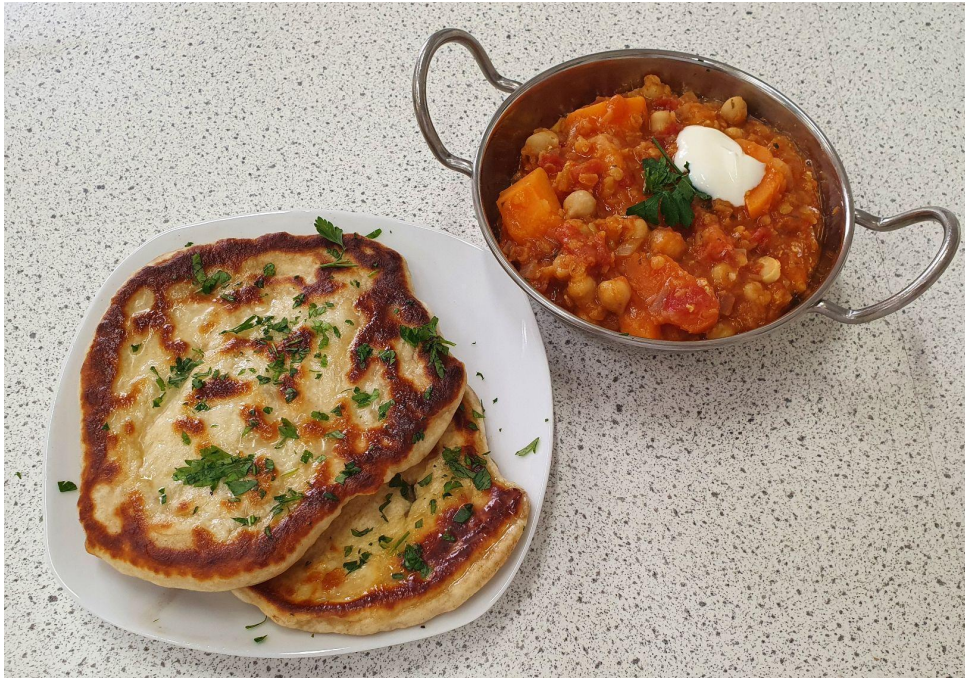

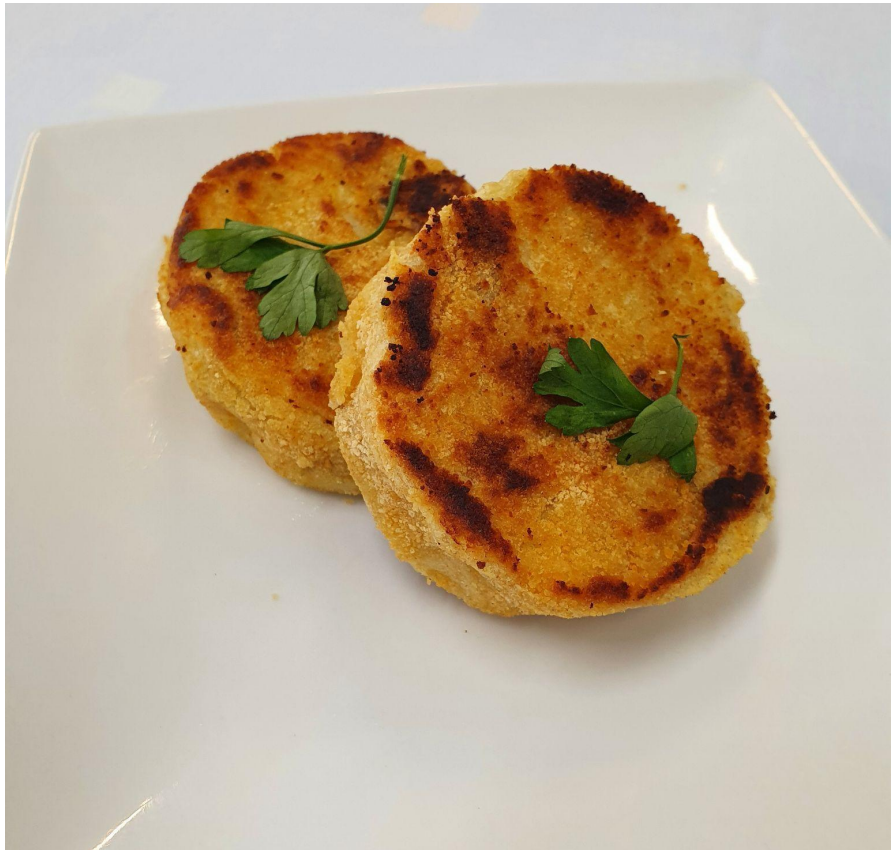

Task in pairs:

Looking at the case study answer the following questions:

1. Analyse the profile to determine his nutritional needs [10 marks]

2. Create a 2 day diet plan suitable for the case study [4 marks]

	Breakfast	Lunch	Snack	Dinner
Mon				
Tues				

3. Justify your diet plan [8 marks]

Name	Kieran
Age	15
Weight	45kg
Height	1.45
Medical Conditions	Lactose Intolerant
Activity Levels	Walks to school (5 mins) Plays video games at home Does not play sports
Food / Drink Likes	Pizza, pasta, Beef
Food / Drink Dislikes	Pork fruit
Approximate Daily Kcal Intake	2200 weekdays 3000 weekends
Example Daily Diet	7:30 cocoa pops with whole milk 12:30 Ham and cheese sandwich, 2 chocolate bars, salt and vinegar crisps, can of coke 15:00 can of coke, doritos, haribo 6:30 Lasagna made with beef, side salad with lettuce, tomato and cucumber, and a glass of water.

Past paper…