Scheme of Work

Year 7

This scheme of work has been developed to enable pupils to acquire a range of food skills, increasing in complexity and accuracy, to cook a range of dishes, safely and hygienically, and to apply their knowledge of nutrition and food provenance. Students spend their first rotation learning the basics of safe food preparation. They will use the oven, the hob and the grill and learn how to cut fruit and vegetables safely and evenly and roux sauces. They will also start to learn about food science and nutrition. This is in order to understand and apply the principles of nutrition and health. For their second rotation students learn about the role of some key ingredients in food preparation and put this knowledge into practice by making bread, pastry and pasta sauces. They will also develop an understanding of the source, seasonality and characteristics of a broad range of ingredients throughout this first year.

Scheme of Work

Key Stage 3 **Year** 7 – Food Preparation and Nutrition

Time: 28 hours (2 Rotations)

Introduction
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All materials including Workbooks, Lesson Presentations, Lesson Plans, Homework Books and remote learning materials can be found here →

SCAN ME

Aims
- Pupils will develop their knowledge and understanding of ingredients and healthy eating.
- Pupils will develop their knowledge nutrition and food provenance.
- Pupils will acquire and demonstrate food preparation and cooking techniques.
- Pupils will acquire and demonstrate the principles of food hygiene and safety.
- Pupils will develop their knowledge of consumer food and drink choice.
- Pupils will apply their knowledge to make informed choices.
- Pupils will develop the creative, technical and practical expertise needed to perform everyday tasks confidently.
- Pupils will build and apply a repertoire of knowledge, understanding and skills in order to create high quality dishes for a wide range of people.
- Pupils will evaluate and test their ideas and the work of others.
- Pupils will learn about food science and its impact in cookery.

Learning outcomes overview
Through this scheme of work, pupils will:
- recall and apply the principles of *The Eatwell guide* and be able to apply to their diets
- discuss energy and how needs change through life;
- name the key nutrients, sources and functions;
- acquire and demonstrate a range of food skills and techniques;
- adapt and follow recipes using appropriate ingredients and equipment to prepare and cook a range of dishes, increasing in complexity;
- acquire and demonstrate the principles of food hygiene and safety;
- identify how and why people make different food and drink choices;
- demonstrate the knowledge, understanding and skills needed to engage in an iterative process of planning and making;
- acquire and apply a knowledge and understanding of food science;
- apply and consolidate their literacy and numeracy skills by using them purposefully in real-life scenarios;

- track their progress using their workbooks (cooking, nutrition, food provenance, ingredients and creativity).

Under pinning knowledge at KS3

WJEC Eduqas

Food preparation and cooking skills, such as knife skills, control of basic equipment (grater, peeler, can opener, sieve, whisk, etc.), control of oven, hob, grill, use of refrigeration, etc.

• How to work safely.
• Food hygiene (including how to wash up, dry and store equipment).
• Key nutritional principles, including the eatwell guide, the importance of macronutrients (protein, fats, carbohydrates), micronutrients (vitamin and minerals), dietary fibre, water – all at a basic level. An awareness of dietary needs, e.g. at different life stages, vegetarians, allergies and religious considerations, etc., and how dishes and meals can be planned to meet the needs of specific dietary groups.
• Simple ingredient function and food science terms, such as aeration, foaming, coagulation, etc.
• Familiarity with the basic principles of how to conduct a food science investigation.
• Knowledge and understanding of ingredients and food provenance.
• A growing awareness of social, moral, cultural and environmental issues.
• An ability to adapt and follow recipes using suitable ingredients and tools in order to prepare and cook a range of dishes. • Sensory testing and evaluation.
• Time management skills, including basic dovetailing when conducting practical tasks.

Keywords

Ambient, Bacteria, Raising Agent, Bridge, Claw, Carbon Footprint, Fermentation, Fairtrade, Coagulation, convection, conduction, radiation, Denaturation, Food poisoning, Food security, food provenance, Gelatinisation, Gluten, Knead, Julienne, Brunoise, Julienne, Lactose, Macronutrient, Micronutrient.

Resources:
- Cooking equipment
- Commodities
- Booklets
- Recipes
- Evaluations
- Sensory analysis charts
- Quick key assessments
- Skills checklist
- Presentations
- Assessment papers

Overview

Rotation One:
Lessons 1 – Expectations, routines and kitchen safety
Lesson 2 - Poached Egg on Toast - Coagulation, Dextrinisation, Personal & Hygiene Safety
Lesson 3 - Fruit Fusion - Knife safety, enzymic browning, seasonal fruit and The Eatwell Guide
Lesson 4 - Nutrition - Macro and Micronutrients
Lesson 5 - NEA 1 style food investigation - Soup, reduction method
Lesson 6 - Mac and Cheese - Gelatinisation, Maillard Reaction, Roux.
Lesson 7 - Fairtrade - Ethical Reasons for choice
Lesson 8 - Assessment lesson - Practical & Theory

Rotation Two:
Lesson 1 - Food Safety - Pathogenic bacteria, contaminants, danger zone, 4 C'S, food poisoning and food storage
Lesson 2 - Bread - Biological raising agent, gluten development, factors affecting yeast
Lesson 3 - Pizza - Gluten development after a change in environment, The Maillard Reaction, equipment.
Lesson 4 - Food Diary - Micro and Macronutrient recap, role of fibre, food development exercise.
Lesson 5 - Pastry Making and Tasting - Create shortcrust, taste multiple other pastries and evaluate.
Lesson 6 - Quiche - Using shortcrust pastry made previously. Coagulation, denaturation, blind baking, food science.
Lesson 7 - Pastry theory review - Theory behind different types of pastry.
Lesson 8 - Spaghetti Carbonara - Pasta cookery, sauce making, heat control.
Lesson 9 - Assessment Day - Theory and Practical (apple crumble, rubbing in technique) assessment

Assessment

The course requires students to complete a range of group, pair and individual tasks. Creating dishes with a variety of skills, methods and heat transfer.

Create (50%)

Each rotation will finish with a 1-hour blind practical assessment. Each dish will feature skills and techniques used in previous dishes. Rotation One – Welsh Rarebit, Rotation Two – Apple Crumble.

Theory (50%)

Each rotation will feature a 40-minute theory assessment. Each assessment will cover key core knowledge of both practical and theory elements.

Presentation Skills: Presentation of final dishes and evaluations using sensory analysis and star diagrams.
Group Discussions: This assessment will continue throughout the unit, with pupils being asked to discuss the merits of their peers.

Teaching and learning overview

Lesson	Learning objectives.	Pupils Outcomes
1.1 Lesson plan	To understand the need for rules and expectations to maintain safety in FPN. To understand the procedures when cooking to maintain safety. Complete your 'Food Contract'. Understand how to work safely and hygienically. Identify hazards do we face in the kitchen. Discuss this half term's practical assessment.	To be able to follow the rules and understand the expectations within FPN. Students will be able to work safely and hygienically in the lessons to come.
1.2 Lesson plan	Identify and use safe working practices when in the kitchen using hobs (poaching) and grilling. Be able to demonstrate simmering and grilling along with plating techniques. Learn how to evaluate their dish.	To be able to demonstrate how to use the ovens safely and clean up effectively. Create a quality Poached Egg on Toast. Conduct an evaluation on their final product using key descriptive words.
1.3 Lesson plan	Identify and use safe working practices when using knives. Be able to demonstrate the Bridge and Claw techniques. Identify enzymic browning. Understand the use of the eatwell guide and its key features.	To be able to demonstrate the bridge and claw techniques. Students will also be able to clean and transport knives safely. Students will be able to identify fruits and vegetables, understand the term seasonal and the impact this has. Each student will understand their dietary impact and the role of the Eatwell Guide.
1.4 Lesson plan	Complete the 5 core knowledge questions. To understand the key principles of nutrition. Be able to identify what nutrients are needed by the body, what they do and where to find them.	Be able to identify what nutrients are needed by the body, what they do and where to find them. Each student will draw the 'Vitamin Clown' which is a way to identify what each vitamins function for the body.
1.5 Lesson plan	NEA 1 Style Food Investigation. To understand how to conduct a food investigation around different preparation methods of soups. To be able to create a hypothesis and follow the investigation through until conclusion.	To be able to conduct an NEA1 style food investigation, students will learn about the NEA1 in relation to the GCSE. To be able to create and evaluate a hypothesis. Students will be able to identify the different soup products and their qualities. By making the soups in pairs/groups, they will be demonstrating team skills, knife skills and communication skills. Students will be able to demonstrate the reduction method, along with demonstrating the bridge and claw techniques. Students will gain an understanding as to what makes a fair test. They will use tables/star charts to gather information. Each student will evaluate each soup and review their own hypothesis.
1.6 Lesson plan	Demonstrate gelatinisation through the creation of a white sauce. Create a roux, understanding the science behind the roux. Demonstrate the Maillard Reaction through the browning of cheese. Create a good quality Mac and Cheese.	Each student will be able to create a roux. They will be able to understand the principle of gelatinisation through the thickening of the sauce using starch. They will create a quality mac and cheese while demonstrating the Maillard reaction. Finish by conducting an evaluation on their product and performance.
1.7	Understand what Fairtrade. Identify key ethical issues around Fairtrade and why it is important. Each student will be able	To Be able to discuss the ethical issues around Fairtrade. Understand unfair trade and the impact this can have on communities and the

Lesson plan	to identify if a product is Fairtrade. Creating an awareness of moral, cultural and environmental issues.	environment. Identify how they can have a positive impact on the world moving forward.
1.8 Lesson plan	Demonstrate learning through practical and theory assessments. 1-hour practical assessment - Welsh Rarebit, 40 Minute theory assessment.	Complete both assessments. Create Welsh Rarebit - White sauce demonstrated in Mac and Cheese and Grilling demonstrated in Poached Egg on Toast. Theory assessment will assess prior knowledge, including core knowledge on both theory and practical elements of the rotation.
Rotation Two		
2.1	Complete the 5 core knowledge questions. Understand key principles around food safety. Be able to identify pathogenic bacteria and their impact on foods. Identify different contaminants in food, along with the danger zone, the 4 C's, food poisoning and food storage.	Each student will be able to identify the impacts of food safety. They will identify pathogenic bacteria along with contaminants and different categories of contamination. Students will be able to understand the key principles behind the danger zone. Be able to discuss the 4 C's and their impact on food safety. Demonstrate how to store food safely.
2.2	Understand the functional properties and working characteristics of yeast and its role in bread making. Identify the type of raising agent that yeast is. Understand the factors that effect yeast and the role of gluten.	Each student will be able to understand the functional properties and working characteristics of yeast. Students will be able to demonstrate the methodology behind bread making, creating and forming a dough. Each student will be able to understand the importance of proving in bread making and the role of fermentation. They will create a variety of high quality, shaped bread roles. Each student will evaluate their roles using key sensory descriptors.
2.3	Understand gluten development after a change in environment. Demonstrate the Maillard reaction. Conduct an evaluation using sensory properties. Understand how to use the equipment most effectively.	Each student will be able to identify the gluten development which occurs after freezing the dough. They will create a high-quality pizza, shaping and forming the dough. They will showcase the Maillard reaction and be able to identify the nutrient related to the Maillard reaction. Each student will conduct an evaluation on their product. Students will complete questioning on how to use equipment most effectively.
2.4	Complete the 5 core knowledge questions. Be able to identify macro and micronutrients, their roles in the body and sources. Understand the role of fibre in the body, along with sources. Gain an understanding of different roles in the industry including food development.	Each student will be able to recall the roles of each macronutrient along with sources. Students will be able to identify the role of micronutrients in the body and where to find them. They will get an insight into different roles and career paths in the industry. Each student will identify the role of fibre and undertake a food development exercise on how to increase fibre in dishes. To review the opportunities for future courses and career options and consider how their study of food can help them live healthier lives.
2.5	Identify a wide variety of pastries that can be used in cookery. Create a portion of shortcrust pastry, using the rubbing in method, understanding the importance of key quality points throughout. To understand the principles of rubbing in of fats to	Each student will start by identifying different types of pastries used in cookery. They will taste and evaluate a range of different pastries. Every student will create a quality portion of shortcrust pastry, demonstrating the rubbing in technique. Each student will understand that we rub the fats into the flour to give the flour waterproof coating – this prevents gluten development.

	produce the breadcrumb stage. To understand how to form a dough To define at least 3 quality indicators of shortcrust pastry.	Each student will also understand the importance of keeping their hands and equipment cool and try to stop the fats melting. Each student will gain an understanding of the key quality points behind making shortcrust pastry.
2.6	Understand the food science behind quiche making. Identifying the role of denaturation and coagulation and which macronutrient it is related too. Create a quality quiche. To learn how to roll out pastry, to bake blind and make a 'savory egg custard' using eggs and milk. To produce a Quiche using your shortcrust pastry and custard mix (and other ingredients). To understand the principles of how eggs 'set' in heat.	Each student will use their shortcrust pastry, forming, shaping and blind baking. Students will understand the role of blind baking. Students will be demonstrating denaturation and coagulation while producing a quality quiche. Each student will gain an understanding of the science behind coagulation and the impact of denaturation. To secure and demonstrate weighing and measuring, knife skills, grating, rubbing-in, forming and shaping, rolling out, and using the oven (baking) to prepare and cook a savoury tart. To secure and demonstrate the principles of food hygiene and safety, focusing on using knives, the grater, rolling-out (clean surfaces), and the oven. To explain the science of shortening and coagulation.
2.7	Complete the 5 core knowledge questions. To be able to recall the theory behind bread and pastry making. Understanding the quality points in both production and results.	Each student will recall the theory behind bread and pastry. Identifying key principles of the functional properties for each product. This will be done through questioning.
2.8	Understand the quality points behind a traditional Italian Carbonara. Creating a greater awareness of international cuisines. To understand the food science involved in making our carbonara. To be able to identify the key control and safety points in the carbonara. Construct an evaluation on their final product using key terms.	Students will create a quality traditional carbonara, leaning how to cook pasta and being able to identify when pasta is Al Dente. Students will also be demonstrating heat control through making a traditional, no cream, carbonara. Students will be gaining a greater understanding of international cuisine. Finishing with an evaluation on their own performance and dish, using sensory descriptors.
2.9	Demonstrate learning through practical and theory assessments. 1-hour practical assessment – Apple Crumble, 40 Minute theory assessment.	Complete both assessments. Practical assessment each student will demonstrate the bridge and claw technique, understand the role enzymic browning plays and showcase the rubbing in technique. Theory assessment will assess prior knowledge, including core knowledge on both theory and practical elements of the rotation.

N.B. The recipes that are suggested in the lesson plans may be substituted. However, alternative recipes should provide the same opportunity to meet the practical learning objectives.

Risk assessment

Appropriate risk assessment will be undertaken prior to work being carried out in a practical food room. Consult BS4163:2014 and local authority and/or school guidance or other resources.

Risk assessment should address the following areas and those specific to the school, level of supervision, pupils and/or environment:

- personal hygiene;
- food safety and storage of ingredients; food allergens;
- the use of heat sources;
- the use of sharp and bladed equipment;
- the use of electrical equipment;
- class size and level of supervision.

Differentiated learning outcomes summary

All pupils will:	Most pupils should:	Some pupils will have progressed further and could:
Carry out 17 hours practical cooking, making a range of basic dishes. List, acquire and demonstrate the principles of food hygiene and safety when preparing and cooking ingredients. Describe the principles of *The Eatwell Guide.* Name the main nutrients provided by *The Eatwell Guide* food groups. Explain the 8 tips for healthy eating. Describe the role of food science in foods and how they are used to create dishes. Identify some factors that can make a fair investigation. Apply knowledge of ingredients to plan a dish for a specific purpose. Identify key functional and chemical properties of key ingredients made this academic year.	Carry out with skill and accuracy 17 hours practical cooking, making a range of dishes. Explain, acquire and demonstrate the principles of food hygiene and safety when preparing and cooking ingredients. Describe and explain the principles of *The Eatwell Guide* and relate it to the diet. Name the main nutrients and their functions provided by *The Eatwell Guide* food groups. Explain and apply the 8 tips for healthy eating to their own diet. Describe and identify a range of foods that use food science, state how they are used to create a wide range of dishes. Identify and explain a range of factors that can make a fair food science investigation. Apply knowledge of ingredients to create a dish for a specific purpose and justify their choice. Describe the functional and chemical properties of key ingredients, applying them to products made this year.	Independently, with skill and accuracy carry out 17 hours practical cooking, making a range of dishes. Acquire, describe and demonstrate the principles of food hygiene and safety when cooking and manage their implementation independently. Describe and explain the principles of *The Eatwell Guide*, and use it when devising meals and menus for themselves and others. Name the main nutrients and their functions provided by *The Eatwell Guide a*nd recognise that the amount of energy and nutrients provided by food depends on the portion eaten. Explain and apply the 8 tips for healthy eating to the diet. Analyse food science terms, how they react, what factors are needed for this to happen in different ways in which they are used to create a range of dishes. Identify, explain and summarise the importance of a fair food science investigation. Plan a new dish taking into account the specific needs; apply their knowledge of ingredients and healthy eating. Analyse the functional and chemical properties of key ingredients, applying them to a wide range of products.

National Curriculum

Cooking and nutrition

As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating.

Pupils should be taught to:

- understand and apply the principles of nutrition and health
- cook a repertoire of predominantly savoury dishes so that they are able to feed themselves and others a healthy and varied diet
- become competent in a range of cooking
- understand the source, seasonality and characteristics of a broad range of ingredients.

English:

Reading

Pupils should be taught to understand increasingly challenging texts through:

- learning new vocabulary, relating it explicitly to known vocabulary and understanding it with the help of context and dictionaries;

Writing

Pupils should be taught to write accurately, fluently, effectively and at length for pleasure and information through:

- summarising and organising material, and supporting ideas and arguments with any necessary factual detail;
- applying their growing knowledge of vocabulary, grammar and text structure to their writing and selecting the appropriate form;

Pupils should be taught to plan, draft, edit and proof-read through:

- considering how their writing reflects the audiences and purposes for which it was intended;
- paying attention to accurate grammar, punctuation and spelling;

Grammar and vocabulary

Pupils should be taught to consolidate and build on their knowledge of grammar and vocabulary through:

- using Standard English confidently in their own writing and speech;

Spoken English

Pupils should be taught to speak confidently and effectively, including through:

- using Standard English confidently in a range of formal and informal contexts, including classroom discussion;
- giving short speeches, reading recipes and presentations, expressing their own ideas and keeping to the point;
- participating in formal debates and structured discussions, summarising and/or building on what has been said.

Mathematics:

Number

Pupils should be taught to:

- understand and use place value for decimals, measures and integers of any size
- order positive and negative integers, decimals and fractions
- interpret percentages and percentage changes as a fraction or a decimal
- use standard units of mass, length, time, money and other measures, including with decimal quantities;
- use a calculator and other technologies to calculate results accurately and then interpret them appropriately.

Ratio, proportion and rates of change

Pupils should be taught to:

- change freely between related standard units [for example time, length, area, volume/capacity, mass]

Statistics

- construct and interpret appropriate tables, charts, and diagrams, including frequency tables, bar charts, star charts, pie charts, and pictograms for categorical data, and vertical line (or bar) charts for ungrouped and grouped numerical data.

Science: Nutrition and digestion

- content of a healthy human diet: carbohydrates, lipids (fats and oils), proteins, vitamins, minerals, dietary fibre and water, and why each is needed;

Energy

- comparing energy values of different foods (from labels) (kJ). Calorie intake for men and women.

RSE and Health education: (statutory from September 2020)

Healthy eating

Secondary school pupils should continue to develop knowledge specified for primary:

- What constitutes a healthy diet (including understanding calories and other nutritional content).
- The principles of planning and preparing a range of healthy meals.
- The characteristics of a poor diet and risks associated with unhealthy eating (including, for example, obesity and tooth decay) and other behaviours (e.g. the impact of alcohol on diet or health).

and cover the specified secondary content:

- How to maintain healthy eating and the links between a poor diet and health risks, including tooth decay and cancer.

Physical health and fitness

Secondary school pupils should continue to develop knowledge specified for primary:

- The characteristics and mental and physical benefits of an active lifestyle.
- The importance of building regular exercise into daily and weekly routines and how to achieve this; for example walking or cycling to school, a daily active mile or other forms of regular, vigorous exercise.
- The risks associated with an inactive lifestyle (including obesity).

and cover the specified secondary content:

- The positive associations between physical activity and promotion of mental wellbeing, including as an approach to combat stress.
- The characteristics and evidence of what constitutes a healthy lifestyle, maintaining a healthy weight, including the links between an inactive lifestyle and ill health, including cancer and cardiovascular ill-health.

Health and prevention

Secondary school pupils should continue to develop knowledge specified for primary:

- The importance of sufficient good quality sleep for good health and that a lack of sleep can affect weight, mood and ability to learn.
- About personal hygiene and germs including bacteria, viruses, how they are spread and treated, and the importance of handwashing.

and cover the specified secondary content:

- About personal hygiene, germs including bacteria, viruses, how they are spread, treatment and prevention of infection, and about antibiotics.
- The importance of sufficient good quality sleep for good health and how a lack of sleep can affect weight, mood and ability to learn.