

	Overvi	ew of KS3 Food and Nutrition Curriculu	ım
		Head of Department: Mrs S E Rowlands	
	Food and Nutrition. At the end of KS3, studer Year 7	echnology rotation. KS3 students will spend a nts can choose if they would like to continue t Year 8	heir studies at GCSE level. Year 9
	The main aim in Year 7 is for students to learn where food comes from, how to cook a range of dishes safely and hygienically and to apply their knowledge of healthy eating. <u>Key Topics Covered</u> Students will develop their knowledge and understanding	The aim in Year 8 is for students to learn about the working characteristics functional and chemical properties of ingredients in addition to building their practical skills and developing their nutrition, diet and health knowledge. <u>Key Topics Covered</u>	In Year 9 students will focus on the commodity cereals. This gives students the ability to apply the principles of food science, nutrition and dietary needs building on their prior learning. This provides opportunity for a more experimental and challenging approach to cooking, learning high level practical skills. Key Topics Covered
Covered over 30 lessons.	 of ingredients and healthy eating by covering the following key topics: Diet: The Eatwell Guide, 5 a day and NHS guidelines for healthy eating. Principles of nutrition, energy balance, quality eating, fibre, water, salt and snacking. Food safety: Food hygiene and kitchen safety. High risk foods, date marks, pathogenic bacteria - Campylobacter. Food Choice: Differing dietary needs e.g. personal choices, religion/culture, cooking from scratch versus convenience. Consumer Awareness: Food waste, organic food and labelling. Food Provenance: Where food comes from, sustainability and seasonality. Food Science: Enzymic browning, functional properties and working characteristics of ingredients – fat, flour and sugar. Active Lifestyles: Exercise and water consumption. 	 Students will develop their knowledge and understanding of food science and nutrition by covering the following key topics. Diet: Understanding the difference between macro and micronutrients. Role of protein, fat and carbohydrate in the diet. Vegetarian diet and alternative protein. Sugar intake and role in food and drink. Food Safety: Demonstrating a clear understanding of food safety and hygiene when making. Pathogenic bacteria - Bacillus cereus. Food choice: Seasons, portion size, concerns with excess sugar intake, alternative protein, moral value of food. Consumer Awareness: Food waste, recipe modification, nutrition labels, allergies. Food Science: Raising agents, colloids, emulsions, functional properties and working characteristics of ingredients - coagulation, dextrinisation, caramelisation, foam, Maillard Reaction. 	 Diet: Dietary needs of teenagers, micronutrients. Coeliac, lactose intolerance and vegan diet. Recipe modification to improve the nutritional value. Food Safety: Food hygiene, preventing food poisoning, pathogenic bacteria, temperature control. Food Choice: Seasons, importance of cooking from scratch (low sugar/low salt), foods from around the world. Consumer Awareness: food waste - buying, preparing and cooking food. Influences of media on food choice. Food styling. Food Provenance: Cereals, staple foods, herbs and spices. Food Science: gluten experiment, functional properties and working characteristics of bread and



 Practical Skills Students undertake a range of practical lessons from Layered Pasta Salad to Make at Home KFC. This helps to develop their own practical learning journey with a focus on the following cooking techniques and skills: Weighing and measuring. Food safety - the 4 C's. Use of small and large equipment in food preparation. Knife skills - slicing/dicing. Bridge/claw grip. Food Science - enzymic browning, functional properties of fat and sugar when baking. Grating/peeling. Methods of heat transfer - conduction, convection, radiation. Hob control - frying, boiling, simmering. Safe oven use. Mething all no ne, creaming and rubbing in method. Stewing fruit. Coating, enrobing, combining and shaping. Work to time. Selecting and adjusting a cooking process. Careers: Public Health, Environmental Health Officer, Community Nutritionist/Nutritionist, Dietitian, Quality Assurance, Food Styling, Product Development 	Practical Skills Students undertake a range of more skilled dishes from Swiss Roll to Biryani. They continue to develop their practical learning journey becoming more confident and competent with the following additional skills: • Weighing and measuring. • Rubbing in, whisking, glazing. • Combining, rolling and shaping. • Making a dough. • Dividing mixtures. • Safe oven use. • Knife skills – vegetables in particular onion and meat preparation. • Handling raw meat safely. • Marinating. • Use of food processor for sauces. • Test for readiness • Time management.	 pastry (gluten development, shortening). Sauces and starch as a thickener – gelatinisation. How marinades work. Practical Skills Students broaden their skills by making more complex products from Chelsea Buns to Lasagne and Thai curry. They continue to develop their practical learning journey with a focus on the following additional skills: Making, knead, prove, shape and finish a leavened and unleavened dough. Make, rest, shape and finish pastry. Use of filo pastry - combining, shaping and finishing products. Safe use of electrical equipment. Handling raw meat and checking the core temperature. Combining, mixing and dividing. Making a vhite sauce – gelatinisation. Making a reduction sauce. Stir frying. Boiling and simmering. Setting agents. Food styling. Careers: Food Buyer, Public Relations, Advertising, Quality Assurance, Food Marketing, Lifestyle and Consultancy, Environmental Health Officer, Dietitian, Sports Nutritionist/Nutritionist, Microbiologists, Food Journalism, Brand Manager.
---	---	--



The KS3 Food curriculum takes account of the National Curriculum, the core competencies and the need to prepare students for the GCSE Food Preparation and Nutrition specification. However, the rationale behind the curriculum is driven by a vision of what all students should know, understand and be able to do by the end of key stage 3, given that for 70% of the cohort this will be the end of their formal Food education.

KS3 National curriculum

"As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life."

- 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 techniques [for example, selecting and preparing ingredients; using utensils and electrical equipment; applying heat in different ways; using awareness of taste, texture and smell to decide how to season dishes and combine ingredients; adapting and using their own recipes]
- understand the source, seasonality and characteristics of a broad range of ingredient

Core competencies

Core competences for children and young people aged 5-16 years The competences represent core skills and knowledge around the themes of

- Diet (food and drink),
- Consumer Awareness (Food Choice and Food Provenance),
- Cooking (Food Preparation and Handling skills),
- Food Safety
- Active Lifestyles (physical activity)

The competences are progressive and cumulative from one age phase to the next.

They could be met at home, school or through other activities.

They show essential knowledge and capability – they are neither a curriculum nor an examination specification. Their aim is to help children and young people to develop the skills and knowledge to make and implement healthy food choices.

Our key stage 3 FOOD curriculum aims to ensure the following aims are achieved by the end of KS3, with thirty hour lessons in year 7, 8 + 9

- All students should have the skills, confidence and resilience to undertake preparing and cooking a range of dishes independently and safely.
- All students should have some understanding of how the food they consume will impact on the health of their body and mind, both now and in the future.
- All students should understand that ingredients have specific functions in recipes and be beginning to understand some of food science.
- All students should understand some of the impact that growing, rearing and processing foods can have on people and planet.
- All students should have some understanding of their choices as consumers.

Food preparation and cooking skills (food safety)

For students to demonstrate effective and safe cooking skills by planning, preparing and cooking using a variety of food commodities, cooking techniques and equipment.

Health and nutrition

To develop students understanding about the relationship between diet, nutrition and health including the physiological and psychological effects of poor diet and health

Food science

To develop knowledge and understanding of the functional properties and chemical processes of food ingredients.

Factors affecting food choice

To understand the economic, environmental, cultural and ethical influences on food availability and choices, diet and health.

Food provenance

To understand the origins and production process of ingredients and the impact that this can have on the environment.



	Overview of K	54 Curriculum	
	Subject: GCSE Food Preparation and	Nutrition Exam Board: WJE	C
	Year 10	Yea	r 11
Autumn Term	 EDUQAS GCSE Food Preparation and Nutrition Year 10 is taught through commodities with a balance of practical and theoretical knowledge and application. Assessment: Work is assessed throughout the year by: pre/post-tests, end of unit tests, written tasks and practical activities. Unit 1: Cereals (including flours, breakfast cereals, bread and pasta) Key Topics Provenance: How climate affects the types of cereals which can grow. Introduction to staple foods, GM crops and the impact of crop failure on the health of the nation. Classification: Main focus is how cereals are grown, harvested and processed. The structure of the grain, primary and secondary processing, extraction rate, Free from ranges and coeliac disease are identified. Nutritional values (include sources, functions, deficiencies, excess, daily requirements): Introduction to nutrition: Macro and Micronutrients, BMI and RNI's. Key focus is the nutritional value of cereals and the contribution towards energy requirements. Focus on Carbohydrate, Fibre, Fat and Vitamins B1, 2 and 3. Fortification of food in the context of flour and breakfast cereals is highlighted. Dietary Considerations: A range of considerations covered: Government guidelines for healthy eating, energy balance, Obesity, Type 2 Diabetes, Cardiovascular Disease and the impact of a low-fibre dist few series. 	through practical experimentation and use th (c) analyse and evaluate the task (d) produce a report which evidences all of th visual recordings to support the investigation WJEC Eduqas recommends: 8 assessment hours for this assessment, to co WJEC expects the total length of the report to Assessments change annually, released Septe Assessment Objectives AO2 (10%) Demonstrate knowledge and	academic year in which the learner is able to select from a choice of two tasks for chours have been allocated to each d as the optimal (recommended) for mended assessment hours need to be with the required regulatory conditions. ire each learner to: nction and chemical properties of ingredients the findings to achieve a particular result the above and includes photographs and/or over all aspects of the assessment. to be between 1,500 – 2,000 words. ember 1 st by WJEC secure site. AO4 (5%) Analyse and evaluate different aspects of
	diet focussing on haemorrhoids, diverticulitis and cancer of the colon.	understanding of nutrition, food, cooking and preparation.	nutrition, food, cooking and preparation, including food made by themselves and others.



Food Choice:	 SR and RMcD choose appropriate task.
Trends in convenience food, ultra-processed food with links to current work/leisure	 Recap on key principles of how to conduct NEA – ensure learners are familiar with the
time and changing demographics. Media and purchasing patterns are considered.	mark scheme and how to be successful in NEA Assessment 1 (research methods,
	hypothesis setting, plan of action, writing up an experiment, analysis results of
Food Science:	experiment and drawing conclusions, referencing sources).
Functional and working characteristics of ingredients with the focus on the chemical	 Knowledge recall is undertaken on the topic for week 1 and 2 – practical and the certical leaveledge
and physical structure of cereal grains. Key properties covered are: gluten formation, gelatinisation, coagulation, dextrinisation, retrogradation, gels, shortening, lamination	theoretical knowledge.
and raising agents.	 Students conduct research for their exam (week 3/4) Computer sessions for summary of research, mind map, hypothesis and plan of action
and faising agents.	 Computer sessions for summary of research, mind map, hypothesis and plan of action (week 5/6)
Food Safety:	 Food science and investigation practical exam undertaken (week 7). Students taken
How bacteria multiples, temperature control, low risk and high-risk foods and safety	off timetable.
issues with cooked cereals (Bacillus Cereus).	 Computer sessions for final conclusions (week 8).
Practical skills:	Half Term
A range of high skilled products are made throughout the unit using skills listed below.	(Mock Revision List given to students before half term. This revision list is a continuation
	of what is used in Year 10).
Bread and enriched dough.	Mock exam week falls within NEA2 assessment.
Flatbreads	
Pasta making.	NEA 2: The Food Preparation Assessment
Shortcrust pastry	35% of total qualification
Flaky pastry	Released 1 st November by WJEC secure website.
• Choux pastry.	
Roux sauce	This assessment is synoptic and assesses the application of knowledge and understanding in relation to selecting dishes and identifying cooking skills/techniques and the execution
Other cereals practical: Focus on maize, rice, oats.	of practical skills.
Meringues.	
	This assessment will require learners to:
	Plan, prepare, cook and present a selection of dishes, to meet particular requirements
	such as a dietary need, lifestyle choice or specific context.
	Two options for this assessment will be set by WJEC Eduqas that will require the learners
	to:
	(a) investigate and plan the task, select a final menu to be produced to showcase skills
	and produce a plan of action for the practical execution of the dishes (to include trialling
	and testing)
	(b) prepare, cook and present a menu of three dishes within a single session.
	(c) evaluate the selection, preparation, cooking and presentation of the three dishes





- 5 products
nd planning of practical exam
d week after half term.
a week alter han term.
chniques/practical work.
y 5 th May.
revision pack produced by the department.
A2 is undertaken in school under exam
Az is undertaken in school under exam
ht in Year 10. Revision/past paper booklets
s form part of revision.
Focus on extended questions.
rocus on extended questions.
paration and Nutrition
oth containing compulsory questions and will
specified GCSE content.
ial.
ponse questions to assess content related to



Lemon Tart

Mayonnaise

Unit 3: Soya, tofu, beans, nuts, seeds taught at the end of this unit.

Classification:

Primary and secondary processing of soya beans. How soya is processed into tofu, TVP (textured vegetable protein). How mycoprotein is produced. How beans (pulses/legumes), nuts and seeds are grown and classified including primary and secondary processing.

Nutritional Values:

Complementary proteins and the role of fibre and omega 3 in our diet. Why nuts and seeds play an important role in a balanced diet. Focus on micronutrients: B6, Vitamin E, potassium, selenium and magnesium, iron and zinc.

Food Choice

Food poverty and the cost-of-living crisis. The impact of food prices on the global market. How to food shop economically and save money when preparing and cooking food. Plant based foods and reducing our carbon footprint. How and why food is packaged and current legislation on food labels. Sensory analysis and testing.

Food Science and Food hygiene and safety.

Use of nuts as a thickener. Focus on 14 allergies in particular, nut allergy.

Practical Skills

Salt and Pepper Tofu. Sticky Lemon Tofu. Free choice practical Sensory testing.



 Unit 4: Commodity: Milk, cheese, and yoghurt Provenance: Local versus nationally distributed and imported milk. Cost and impact on milk prices for farmer's livelihood. Food miles, food wastage and sustainability. How animals are reared, fed and milked. Animal and plant sources of milk. Different methods of preserving milk (drying, UHT, pasteurisation, etc.). Importance of hygiene for effective food safety (heat treatment). Effect on nutritional content from processing. Examples of secondary processing – milk to cream, yoghurt, cheese, etc. Classification: Different animal sources (also link in non-dairy milk – e.g., nut, soya, coconut, alternatives to non-dairy cream) Nutritional values (include sources, functions, deficiencies, excess, daily requirements): Recap macronutrients. Focus calcium, Vit A&D, iodine. Dietary Requirements: 		Year 10 Examination – written and practical exam.	Exam Preparation and Revision
 Link to bone health: Calcium and vitamin D. Allergies: lactose intolerance. Food Science: Chemical and physical structure of dairy based products. Emulsion – explain why milk is an emulsion. Denaturation and coagulation of milk proteins. Making butter, yoghurt – the science behind it. Making cheese – use of rennet (curds and whey). Benefits of bacteria in the making of yoghurt, cheese, etc. Effect of heat on cheese. Food hygiene and safety: Heat treating raw milk. Storage of dairy products. Practical skills: Butter – cream tea. Paneer – curry, Panacotta. Free choice practical 	Summer Term	Unit 4: Commodity: Milk, cheese, and yoghurt Provenance: Local versus nationally distributed and imported milk. Cost and impact on milk prices for farmer's livelihood. Food miles, food wastage and sustainability. How animals are reared, fed and milked. Animal and plant sources of milk. Different methods of preserving milk (drying, UHT, pasteurisation, etc.). Importance of hygiene for effective food safety (heat treatment). Effect on nutritional content from processing. Examples of secondary processing – milk to cream, yoghurt, cheese, etc. Classification: Different animal sources (also link in non-dairy milk – e.g., nut, soya, coconut, alternatives to non-dairy cream) Nutritional values (include sources, functions, deficiencies, excess, daily requirements): Recap macronutrients. Focus calcium, Vit A&D, iodine. Dietary Requirements: Link to bone health: Calcium and vitamin D. Allergies: lactose intolerance. Food Science: Chemical and physical structure of dairy based products. Emulsion – explain why milk is an emulsion. Denaturation and coagulation of milk proteins. Making butter, yoghurt – the science behind it. Making cheese – use of rennet (curds and whey). Benefits of bacteria in the making of yoghurt, cheese, etc. Effect of heat on cheese. Food hygiene and safety: Heat treating raw milk. Storage of dairy products. Practical skills: Butter – cream tea. Paneer – curry, Panacotta.	 Technology in food. Revision of key topics – focus dependent on class and performance in previous exam (areas for revision identified through these activities). Careers: Food Buyer, Public Relations, Advertising, Quality Assurance, Food Marketing, Lifestyle and Consultancy, Environmental Health Officer, Dietitian, Public Health, Sports Nutritionist/Community Nutritionist, Microbiologists, Sensory Science, Food Scientist, Food Technologist, Food Journalism, Brand Manager, Account Manager, Product



Unit 5: Fruit and Vegetables.

Provenance:

How/where fruit and vegetables are grown. Growing/harvesting/processing of fruit and vegetables. Preservation - fresh, frozen, canned, dried, jam, juiced.

Classification:

Difference between fruits and vegetables – leaves, stems, roots, tubers, bulbs, etc

Nutritional values (include sources, functions, deficiencies, excess, daily requirements):

Recap on 5 a day/Eatwell Guide/Soluble and insoluble fibre. Recap on vitamins and minerals (cover A, B, C, D, calcium and iron), and include complementary actions of the nutrients Vitamin C and iron/vitamin D and calcium. Fat- and water-soluble vitamins – effect of oxidation, heat on vitamin content of fruits and vegetables. Compare nutrient content of a specific fruit or vegetable – fresh, frozen, canned, dried, etc

Dietary Requirements:

Vegetarians (lacto/lacto-ovo/vegan). Bone health – link in with vitamin D and calcium. Healthy blood – link in with vitamin C and iron.

Food Choice

Organic verses non-organic (Soil Association, etc.). Use of pesticides and herbicides – possible impact on health. Cost, eating in seasons and food miles.

Food Science:

How the texture of fruits and vegetables changes when cooked. Oxidation/enzymic browning. Colour of green leafy/red vegetables – NEA 1 style experiment focussing on chlorophyll and anthocyanins.

Food Safety:

Recap on personal hygiene, temperature control, use by, best before dates. Bagged salads – food poisoning risk (link to processing of leaves for bagged salads).

Practical Skills

Samosas Preservation – jam Potato Salad – making mayonnaise. Fruit/Vegetable Cutting mat. Roast Potatoes and Rosti



Gnocchi
NEA1 Practice – Sugar in Cakes.
2018 NEA 1 task undertaken.
Following commodity taught through this task.
Unit 6: Butter, oils, margarine, sugar and syrup
Classification:
Butter, oils, margarine (animal and vegetable fats). Difference between hard and liquid
fats. Margarine and hydrogenation.
Sugar and syrup. Sugar cane, sugar beet, types of syrup (monosaccharides and
disaccharides, e.g., treacle, golden syrup, sugar substitutes.
Food Science: Chemical and physical structure of butter, oils, margarine.
Hydrogenation of oils to produce hard fats – health implications. Plasticity, Shortening,
Emulsification. Melting point/smoke point. Chemical and physical structure of sugar
and syrup, caramelisation.
For distance and offering Densidian of fer
Food hygiene and safety: Rancidity of fat. Practical tasks
NEA1 Experiments and free choice.
NEAT Experiments and nee choice.
Careers: Food Buyer, Public Relations, Advertising, Quality Assurance, Food Marketing,
Lifestyle and Consultancy, Environmental Health Officer, Dietitian, Public Health, Sports
Nutritionist/Community Nutritionist, Microbiologists, Sensory Science, Food Scientist,
Food Technologist, Food Journalism, Brand Manager, Account Manager, Product
Development, Research and Development, Market Analyst, Education.



Curriculum Rationale:

The Eduqas GCSE in Food Preparation and Nutrition equips learners with the knowledge, understanding and skills required to cook and apply the principles of food science, nutrition and healthy eating. It encourages learners to cook, enables them to make informed decisions about food and nutrition and allows them to acquire knowledge in order to be able to feed themselves and others affordably and nutritiously, now and later in life.

This course has been designed to enable centres to concentrate on innovative delivery of the course whilst creating a balance between practical and theoretical knowledge and understanding. The layout of the content into six areas of content promotes flexibility of delivery, and releasing two tasks for each of the assessments that constitute the non-examination assessment will ensure learners are able to complete assessments suitable to their aspirational goals.

By studying food preparation and nutrition learners will:

• be able to demonstrate effective and safe cooking skills by planning, preparing and cooking a variety of food commodities whilst using different cooking techniques and equipment.

• develop knowledge and understanding of the functional properties and chemical characteristics of food as well as a sound knowledge of the nutritional content of food and drinks.

• understand the relationship between diet, nutrition and health, including the physiological and psychological effects of poor diet and health.

• understand the economic, environmental, ethical and socio-cultural influences on food availability, production processes, diet and health choices.

• demonstrate knowledge and understanding of functional and nutritional properties, sensory qualities and microbiological food safety considerations when preparing, processing, storing, cooking and serving food.

• understand and explore a range of ingredients and processes from different culinary traditions (traditional British and international) to inspire new ideas or modify existing recipes.

This course provides a suitable foundation for WJEC Level 3 Food, Science and Nutrition.