Curriculum Scheme

Food Preparation and Nutrition



Believe, Succeed, Together

Curriculum Scheme

The fundamental aim of a curriculum scheme is to coherently plan and sequence the cumulative acquisition of subject content to facilitate retention, recall and application.

CREATE Curriculum

Curriculum schemes are underpinned by the CREATE Curriculum which brings together the key interrelated aspects of curriculum structure, design and delivery into a single coherent entity.

CREATE Element	Description			
Challenge	Stretch and extend learning to foster a deeper understanding beyond the content of the National Curriculum and GCSE specifications.			
Regulate	Plan, monitor and evaluate specific aspects of learning to foster greater responsibility and independence – DRAFT.			
Enhance	Consolidate and develop transferable literacy and numeracy skills.			
Adapt teaching to take account of different pupils' needs and provide an opportunity for all pupils to achieve.				
Adapt and Assess	Undertake regular in-class assessment to monitor strengths and highlight specific areas of improvement.			
Target	Consolidate identified strengths and develop and overcome areas of improvement.			
Enrich	Enhance physical and emotional wellbeing; develop social, spiritual, moral and cultural capital; and provide opportunities and			
EIIIICII	experiences to successfully transition to the next stage from secondary education.			

Curriculum Allocation

Year Group	7	8	9 (ISP)	9 (NISP)	10	11
Number of Lessons	1	1	2	1*	2	2

ISP – Indicative Subject Preference NISP – Non-indicative Subject Preference *Block of 8-9 lessons on a rotation

Curriculum Intent

Design and Technology (DT) is a National Curriculum foundation subject. 'Cooking and Nutrition' forms part of the <u>National Curriculum DT Programmes of Study</u> at Key Stages 1-3.

Key Stage 1

Learning Intentions

- Use the basic principles of a healthy and varied diet to prepare dishes.
- Understand where food comes from.

Key Stage 2

Learning Intentions

- Understand and apply the principles of a healthy and varied diet.
- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques.
- Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed.

Key Stage 3

Learning Intentions

- 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 e.g. 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 ingredients.

Key Stage 4

Food Preparation and Nutrition is a GCSE option subject - AQA GCSE Food Preparation and Nutrition (8585)

Learning Intentions

- Demonstrate effective and safe cooking skills by planning, preparing and cooking using a variety of food commodities, cooking techniques and equipment.
- Develop knowledge and understanding of the functional properties and chemical processes as well as 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, and 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.

Curriculum Assessment

Key Stage 3 Indicative Competencies

Grade	Nutrition and Health	Knowledge of Ingredients	Practical Skills
8+	Evaluate dishes/recipes applying an extensive understanding of nutrition and health principles.	Understand and evaluate in detail the source, seasonality and characteristics of a broad range of ingredients.	Demonstrate independence completing practical work to an exceptional standard.
7	Analyse dishes/recipes applying a good understanding of nutrition and health principles.	Understand in detail the source, seasonality and characteristics of a broad range of ingredients.	Demonstrate independence completing practical work to a high standard.
6	Analyse dishes/recipes applying a some understanding of nutrition and health principles.	Understand in some detail the source, seasonality and characteristics of a range of ingredients.	Demonstrate independence completing practical work to good standard.
5	Show a good knowledge of the main nutrition and health principles.	Show good knowledge of seasonality and characteristics of a range of ingredients.	Demonstrate independence completing practical work to a competent standard.
4	Show some knowledge of the main nutrition and health principles.	Show some knowledge of seasonality and characteristics of a range of ingredients.	Demonstrate some independence when completing practical work.
3	Identify the main nutrients and the importance of a balanced diet.	Identify characteristics of common ingredients and know where they come from.	With limited guidance prepare and cook ingredients.
2	Identify the main nutrients.	Identify characteristics of common ingredients.	With guidance safely prepare ingredients.
1	Recall some of the Eatwell Guide.	Recall characteristics of common ingredients.	Hold a knife safely with guidance.

Key Stage 4 GCSE Scheme of Assessment

AQA GCSE Food Preparation and Nutrition Scheme of Assessment

Curriculum Overview

Key Stage 3

Year Group	Autumn Term	Spring Term	Summer Term
	The Eatwell Guide	Pasta	Structure and function of eggs
	Food hygiene and safety	Function of ingredients in bread	Egg farming methods
	Knife skills	Emulsions	Milk processing
7	Sensory evaluation	Sugar	Cheese
	Macro nutrients		Ingredients in cake making
	Energy balance		Breakfast
	Heat transfer		
	Micronutrients	Types of pastry	History of biscuits
	Deficiencies and excesses	Meat	Functions of ingredients in biscuits
	Bread making - enriched bread	Gelatinisation	Shortening
8	The role of gluten	Protein alternatives	History of chocolate
	Chicken welfare	Fish	Chocolate production
	Potatoes		Raising agents
	Maize and rice		
	British foods	Heat transfer methods – radiation	Food sources
	Special diets	What are micro-organisms?	Seasonality
	Religions	Signs of food spoilage, enzymic browning	Food waste
	Celebrations	Micro-organisms in food production	Farming methods
9	Food labelling and marketing	Buying and storing food	Food and the environment
	Why is food cooked		Food miles and carbon footprint
	Heat transfer methods – conduction,		GM foods
	convection		Primary and secondary processing

Key Stage 4

Year Group	Autumn Term	Spring Term	Summer Term
	Protein	Minerals	Structure of protein
	Carbohydrates and fibre	Water	Marinading
	Fats	Sodium	Gluten formation
	Water soluble vitamins	Energy, BMR	Raising agents
10	Fat soluble vitamins	Diet related disease	Gelatinisation
		Portion sizes and costing	Foam formation
			Aeration
			Emulsification
			Preparation for mock examination
	NEA 1 – Food Investigation Task	NEA 2 – Food Preparation Task	Revision
		<u>Revision</u>	Food Nutrition and Health
	NEA 2 – Food Preparation Task	Food Nutrition and Health	Food Science
11		Food Science	Food Safety
11		Food Safety	Food Provenance
		Food Provenance	Food Choice
		Food Choice	

Curriculum Content

Topic	Healthy Eating guidelines						
NC Learning Intention	 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 e.g. 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 ingredients. 	С	R	Ε	Α	т	Е
Lesson Learning Intentions	 The Eatwell Guide and the 8 government guidelines on healthy eating defines the Government's advice or recommendations on healthy eating. It is a visual representation of how different foods contribute towards a healthy, balanced diet for an adult or child (over the age of five). The recommendations include: Eat at least 5 portions of a variety of fruit and vegetables every day (40%) (GREEN). Base meals on higher fibre starchy carbohydrates e.g. potatoes, bread, rice, pasta and cereals, choosing wholegrain versions where possible. (38%) (YELLOW). Have some dairy or dairy alternatives (such as soy drinks); choosing lower fat and lower sugar options. (8%) (BLUE). Eat some beans, pulses, fish, eggs, meat and other proteins (including two portions of fish every week, one of which should be oily). (12%) (PINK) Choose unsaturated oils and spreads and eat in small amounts. (1%) (PURPLE). Drink six to eight cups/glasses of fluid a day. Eating less salt - no more than 6g a day for adults. Getting active and being a healthy weight (energy balance). Not skipping breakfast. Cut down on fat and sugar. There are five essential nutrients - protein, fat, carbohydrates (macronutrients), vitamins, and minerals. 				\ \ \	✓	V

Lesson Tasks	 3. Traffic light labelling was introduced by the government to tell you whether a food has high, medium, or low amounts of fat, saturated fat, sugars, and salt. It will also tell you the number of calories and kilojoules. Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Discuss the different sections of the Eatwell Guide. Write a range of different foods onto the correct sections of a blank Eatwell guide. Identify which sections of the Eatwell guide are used for every practical completed. Identify what nutrients are provided by each section of the Eatwell Guide. Identify the macronutrients in the ingredients for every practical completed. Identify that energy provided by macronutrients is essential for life. Identify the activities that need to be completed to burn off calories in foods. Identify the importance of eating breakfast everyday and look at what is eaten for breakfast in different countries and cultures. 			1	
	Look at food packaging to identify traffic light labelling and nutritional content and whether it is a healthy product. Veer 7 Food Propagation and Nutrition booklet.				
Resources	Year 7 Food Preparation and Nutrition booklet Eatwell guide colouring pencils Eatwell Guide	✓		1	1
DRAFT	Complete self-assessment of completed practical Complete a homework task on senses Compare dishes from different cultures and discuss how they could be adapted to better fit the Eatwell guide, increase fibre and reduce free sugars.	✓			
Literacy	Tier 3 vocabulary: macronutrient; micronutrient; kilocalorie; kilojoule; energy balance; free sugars; Tier 2 vocabulary: recommendation; consumption; segment; portion; representation.		1		
Numeracy	Discuss Energy Balance giving examples of activities and how many kilocalories are burnt in 20 minutes and pupils calculate how much activity they need to complete to burnt off kilocalories in certain foods. Use percentages to show the breakdown of the Eatwell guide and also energy consumption of Macronutrients.		1		

	Investigate the wider importance or impact of a population that adopts the principles of the Eatwell				
Challenge	Guide, in terms of life expectancy, cost of health and social care, mental wellbeing, using, where	✓			1
	relevant, international comparisons and cultural differences and attitudes toward diet and nutrition.				

Topic	Food safety						
NC Learning Intention	 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 e.g. 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. 	С	R	E	Α	т	E
Lesson Learning Intentions	 An understanding of good food hygiene is fundamental in food preparation and nutrition for every practical completed. The foundation of this is the understanding that Pathogenic bacteria causes food poisoning. This can be broken down in the following ways: Pathogenic bacteria come from a number of sources –food handlers, high risk foods, pets and rodents Pathogenic bacteria need food, time, moisture and warmth to multiply The multiplication of bacteria can be slowed or stopped through temperature control Food needs to be stored correctly and the temperature of key equipment needs to be maintained Cross contamination is a major cause of food poisoning 				<	✓	✓
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Discuss dangers in the kitchen and circle and explain them from a picture of a commercial kitchen. Chopping boards are coloured in with the colours used in a commercial kitchen and in school Red = raw meat Blue = raw fish Yellow = cooked meat Green = fruit and leafy vegetables Brown = root vegetables 				✓		

	 White = bread/dairy foods Rules for the refrigeration of food are discussed and pictures of foods are stuck onto a picture of the fridge in the correct location. Discuss the common symptoms and causes of food poisoning Identify the three types of pathogenic bacteria (Salmonella, E.coli and Staphylococcus aureus) All practical tasks reinforce food safety in line with the relevant risk assessment 					
Resources	Year 7 Food Preparation and Nutrition booklet Glue and scissors Colouring pencils		1		1	1
DRAFT	Complete self-assessment of completed practical Complete DRAFT of hygiene assessment Reflect on the penne Bolognese practical and how effectively you worked to demonstrate excellent food hygiene and safety.		1			
Literacy	Tier 3 vocabulary: pathogenic bacteria; binary fission; electrocution; food poisoning; danger zone; poultry; Tier 2 vocabulary: multiplication; safety; hazard; hygiene			1		
Numeracy	Discuss the division of bacteria through the process of binary fission every 20 minutes			/		
Challenge	Investigate the consequences of poor food hygiene showing examples from newspaper articles and determine the cause of the outbreak.	1				1

Topic	Food science						
NC Learning Intention	 Understand the source, seasonality and characteristics of a broad range of ingredients. Become competent in a range of cooking techniques e.g. 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. 	С	R	E	Α	Т	E

	When food is cooked and heat is applied it will use at least one method of heat transfer; conduction, convertion, and radiation. This will affect the consent proportion chamical.		
	conduction, convection, and radiation. This will affect the sensory properties, chemical properties of the food and make it safe to eat.		
	Conduction is when the heat travels through a solid material. Heat is transferred directly from a heat source.		
	Convection is when heat travels through air or water.		
	Radiation is when heat rays directly warm and cook food. There are three types of radiation: infra-red, visible red and microwave.		
Lesson Learning Intentions	2. Raising agents are added to mixtures to make them rise. They work by introducing a gas into a mixture.	✓	✓
	The gases used are air, carbon dioxide and steam		
	The three types of raising agents are chemical, mechanical and biological		
	3. Emulsification is forcing two immiscible liquids together (oil and water) to form an emulsion.		
	Stable emulsions such as mayonnaise use the lecithin found in egg yolk to hold the oil and water together.		
	 Unstable emulsions such as lemon dressing will quickly separate back into oil and water. 		
	Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching.		
	Discuss the three heat transfer methods and recap on the practical lessons and the methods of		
	heat transfer used. Discuss the design of different equipment and why it is important whether the material used is an insulator or conductor.		
	Discuss in different scenarios how a microwave oven would be more suitable then an oven.		
	Make bread rolls identifying the different stages of bread making and the function of the		
	ingredients such as the yeast (biological raising agents) and the gluten in strong flour.		
Lesson Tasks	Carry out a sensory analysis of cakes where different ingredients have been omitted to see how it affects the sensory and chemical properties.		
	Make small cakes to demonstrate the role of chemical and mechanical raising agents as well as the action of steam.		
	Make an unstable emulsion (lemon dressing) for Tabbouleh and watch a demonstration of mayonnaise to see the difference the addition of lecithin (egg yolk) causes.		
	Discuss the function of eggs; binding, coating, glazing, thickening, trapping air (aeration), emulsifying.		

Resources	Year 7 Food Preparation and Nutrition booklet Self-assessment colouring pencils Ingredients for practicals – bread rolls, small cakes, cake mistakes experiment, tabbouleh Help sheets		1		✓	
DRAFT	YouTube links - Complete self-assessment of completed practical Identify the methods of heat transfer used to complete every practical lesson. Complete a sensory analysis of cake mistakes reflecting on the function of raising agents. Complete a homework task on bread.		✓			
Literacy	Tier 3 vocabulary: Emulsification, conduction, convection, radiation, chemical, biological, mechanical, immiscible, lecithin Tier 2 vocabulary: agitate, achieve, criteria, demonstrate, component, function, evaluate, prediction			1		
Numeracy	Discuss the temperature changes in bread making from proving(100°C) to baking (200°C) and what happens to the yeast. Discuss the wattage of a microwave and changes needed to the cooking time.			1		
Challenge	Look at a range of different recipes and investigate the heat transfer methods and how that effects the appearance linking this to the food science reactions that take place.	1				

Topic	Food processing						
NC Learning Intention	 Understand the source, seasonality and characteristics of a broad range of ingredients. Become competent in a range of cooking techniques e.g. 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. 	С	R	Е	Α	Т	Е
Lesson Learning Intentions	 Commercial egg laying hens are kept in four egg production systems: enriched cages, barn systems, free-range and organic. Milk in the UK predominately comes from cows and legally must be pasteurised to kill pathogenic bacteria and is homogenised to increase shelf life. The three main types of cow's milk being skimmed, semi skimmed and whole. Milk can also be heat treated to increase shelf life in the following ways: Evaporated - heated to a simmer until the liquid is reduced by 60 percent through evaporation. 				<	✓	

	 Condensed - evaporated milk with added sugar. Sterilised – milk heated to 110 - 130°C for 10 to 30 minutes. Ultra-heat treated – milk heated to 135°C for 1 second. Micro filtered - bacteria is removed when the milk is finely filtered. Milk can be secondary processed into cheese, yogurt, cream, ice cream and butter Cheese is predominately made from cows milk but can also be made of goat and sheep milk. British cheese are names after the place that they originated and although there are many types of cheese they are made in the same way. Pasteurise the milk – heated to 72°C for 15 seconds to kill pathogenic bacteria. Add the starter and rennet – starter is a bacteria and rennet is an enzyme. Cut the curds and drain the whey – curds form a milk jelly, whey is liquid. Add salt – to preserve the cheese and add flavour. Press into moulds – either in barrels or blocks. Leave to mature and then package – six months for mild, 12 months for mature and 18 months for extra mature. 			
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Demonstrate how to test an egg for freshness and the structure of an egg. Discuss the different egg farming methods showing clips of three (free range, barn, enriched cages). What are the benefits for the farmer and the consumer of each? Discuss the functions of eggs and dishes that can be made with egg as the amin ingredient. Discuss the different types of milk and show clip to explain the terms pasteurisation and homogenisation link back to food safety. Discuss how milk can be turned into other foods – cheese, yogurt, ice cream, butter and cream. What is the difference between them? Discuss the history of British cheese and show the clip of cheddar cheese production. Complete sensory evaluation of four British cheeses (cheddar, red Leicester, wensleydale, stilton) Make a summer fruit cheesecake using soft cheese and Greek yogurt discuss the difference between them and the health benefits of soft cheese over a hard cheese. 		✓	
Resources	Year 7 Food Preparation and Nutrition booklet Ingredients for practicals – cheese tasting, summer fruit cheesecake Self-assessment colouring pencils	1	1	

	Help sheets					
	YouTube links -					
DRAFT	Complete self-assessment of completed practical		,			
DRAFI	Complete a homework task on cakes.		>			
	Tier 3 vocabulary: Membrane, chalaza, germinal disc, air pocket, food assurance scheme, aerating,					
Literacy	emulsifying, organic, free range, pasteurisation, homogenisation, rennet, curds, whey			✓		
	Tier 2 vocabulary: Binding, coating, glazing, thickening, evaporated, drained, ripen ,mature					
	Eggs are graded with numbers dependent on farming methods used. Discuss how the number of					
	hens kept per square metre will impact on the profits made by farmers and the health of the hens					
Numeracy	and eggs.			1		
	Discuss how the length of time that cheese is kept to mature will affect the flavour and how this is					
	displayed using a numerical system on cheese.					
Challenge	Looking at current and historical data on egg farming methods how have consumer trends changed	,				
	and what does this suggest about consumers ethical and moral decision making?	•				

Topic	Micronutrients and Healthy Eating						
	 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						
NC Learning Intention	 Become competent in a range of cooking techniques e.g. selecting and preparing ingredients; 	С	R	Е	Α	Т	E
The Leavining interior	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 ingredients. 						
	Vitamins and minerals were introduced in year 7 and this will now be expanded on:						
	1. There are five essential nutrients - protein, fat, carbohydrates (macronutrients), vitamins, and						
Lesson Learning	minerals.				,	,	
Intentions	2. Micronutrients are needed in small amounts by the body.				•	•	•
	3. Vitamins are divided into two groups, water soluble and fat soluble, fat soluble vitamins are						
	stored in the liver and water-soluble vitamins are not stored in the body.						

	 Vitamin retention can be increased dependent on the cooking methods used. Steaming, microwaving and stir frying retain water soluble vitamins Foods high in Antioxidants (Vitamins A, C, E) should be eaten frequently to maintain a healthy diet. Fortification is used for three reasons. to replace nutrients that may have been lost during manufacture To add extra nutrients to improve the health of the nation To market (sell) the product The three main minerals are iron, calcium and sodium. Salt contains sodium and is where most of the sodium in our diets comes from. Too much sodium can cause high blood pressure which can lead to a heart attack or stroke. Adults should not have more than 6g of salt a day. 			
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Discuss the different Micronutrients and effective ways of remembering their function and sources. Complete a revision sheet on water soluble, fat soluble vitamins and minerals. Identify which micronutrients are in each practical completed. Discuss fortification and the reasons that it is used demonstrating the iron in breakfast cereals. Identify the health consequences of a diet high in salt and foods that are high in salt. Identify the deficiencies of micronutrients. Revise the Eatwell guide and apply prior understanding in making a pizza that fits the guidelines. Identify which sections of the Eatwell guide are used for every practical completed. 		1	
Resources	Year 8 Food Preparation and Nutrition booklet Eatwell guide colouring pencils Self-assessment colouring pencils Ingredients for practicals – chicken noodles, Eatwell guide pizza Help sheets YouTube links	✓	/	1

	Complete self-assessment of completed practical					
DRAFT	Complete a homework task on Micronutrients		1			
	Complete DRAFT of a written assessment on Micronutrients					
	Tier 3 vocabulary: micronutrient; fortification, free radical, antioxidant, water-soluble, fat soluble,					
Literacy	vitamin retention, blood pressure ;			✓		
	Tier 2 vocabulary: deficiency, excess, absorption					
	Pupils preheat their own ovens and measure out ingredients for the practical's.					
	The units used to measure micronutrients are explained					
Numeracy	Milligrams – mg = 1/1000 of a gram			/		
Numeracy	Micrograms – μ = 1/1,000,000 of a gram			•		
	and RI amounts are discussed referring back to the RI of Macronutrients.					
Challenge	Look at the nutritional profile of an ingredient that can be cooked in a variety of ways such as	./				/
Challenge	potatoes and how different cooking methods change the nutritional content.					•

Topic	Food commodities – staple foods and sugar						
	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						
NC Learning Intention	Become competent in a range of cooking techniques e.g. selecting and preparing ingredients;	С	R	Ε	Α	Т	Е
THE LEGITING INTENTION	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 ingredients.						
	1. Staple foods are complex carbohydrates that form a large part of a countries diet and are						
	grown in large amounts and are cheap and filling.						
Lesson Learning	2. Different staple crops are grown around the world dependent on the climate and growing				,	,	,
Intentions	conditions. Examples of staple crops include Potatoes, Plantain, Wheat, Cassava, Maize,				•	٧	•
	Millet, Rice, Rye, Yams.						
	3. Wheat is the staple crop of the UK and is primary processed to turn into flour.						

			1	
	4. Flour has different extraction rates dependent on how much of the wheat grain is included.			
	Wholemeal flour = 100% extraction rate			
	Brown flour = 85% extraction rate			
	White flour = 70% extraction rate			
	5. Sugar is made from sugar beet (grown in the UK and Europe) or sugar cane (grown close to			
	the equator) both are processed into sugar.			
	6. Honey was used to sweeten food before sugar was used.			
	7. Potatoes are another example of a staple food that is high in starch and come in many			
	different varieties with two main types: waxy and floury.			
	8. Maize is a staple food eaten around the world, prepared in a variety of ways			
	As a vegetable			
	Turned into cornflour and used as a thickening agent			
	Turned into cornmeal and used for polenta and ugali			
	Turned into cornflour for tortillas and cornbread			
	Turned into popcorn and corn flakes			
	9. Rice is a staple food that is grown close to the equator due to the need for a warm climate			
	and high humidity, brown rice is high in fibre due to it containing the whole of the grain.			
	Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching.			
	Discuss staple foods around the world and why they are different, pupils should be encouraged			
	to draw on their own personal experiences.			
	Show the processing of flour, potatoes, sugar and rice to improve pupils understanding.			
	Identify the primary ingredient used in secondary processed food products.			
	Discuss the history of sugar from its origins in Polynesia and how its cultivation moved across the			
	globe.			
Lesson Tasks	Identify different dishes that use potatoes as their main ingredient.		/	
	Discuss similarities in the structure of cereal grains.			
	Identify the nutritional content of different cereal grains			
	Revise the function of gluten in bread			
	Identify the micronutrients in the ingredients for every practical completed.			
	Identify which sections of the Eatwell guide are used for every practical completed.			
	Identify the heat transfer methods used fir every practical completed.			
	identify the fleat transfer methods asea in every practical completed.	1		

Resources	Year 8 Food Preparation and Nutrition booklet Eatwell guide colouring pencils Self-assessment colouring pencils Ingredients for practicals – fruit plaits, cottage pie, fruit muffins, popcorn tasting Help sheets YouTube links		1		1	1
DRAFT	Complete self-assessment of completed practical Complete DRAFT of a commodities assessment.		1			
Literacy	Tier 3 vocabulary: staple food, milled, extraction rate, gristing, complex carbohydrates, gluten formation, sugar cane, sugar beet, tuber; Tier 2 vocabulary: processed, extracted, discovered, harvested, grown			1		
Numeracy	Use measuring jugs to measure out the water for the fruit plaits, dough is divided shaped equally. Analyse nutritional information on rice and identify which type of rice has the better nutritional profile. Use percentages to understand extraction rates of flour.			1		
Challenge	Research how more unusual staple foods grow such as plantain, yams and millet and how they are best cooked.	1				1

Topic	Food commodities – meat, fish and alternatives						
	 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						
NC Learning Intention	 Become competent in a range of cooking techniques e.g. 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 	С	R	E	Α	Т	E
	using their own recipes.						
	 Understand the source, seasonality and characteristics of a broad range of ingredients. 						
	1. Chicken is a nutritious food that is popular in the UK. It is lower in saturated fat than red meat						
Lesson Learning	and higher In protein and B vitamins.				,	,	
Intentions	2. Broiler chickens are reared for meat using one of the four following methods; intensive farming,				•	•	•
	freedom foods, free range and organic.						

	 Chicken is a high risk food that can carry Salmonella bacteria if not stored, prepared or cooked correctly. Meat can be classified into four groups; red, white, offal and mechanically recovered meat. The quality of meat will depend on the following factors How the animal has been kept What it is fed on Its age How it is processed and cooked Protein alternatives provide protein from plant or vegetable sources. They are important for people who do not eat meat or animal products. There are three main protein alternatives. Soya, Mycoprotein, Quinoa LBV protein can be eaten together to provide all the essential amino acids. This is called protein complementation. Fish can be classified into three groups, white fish, oily fish and shellfish. Unsustainable fishing methods have led to a decline in fish stocks. 			
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Discuss the change in the nutritional value of chicken when the skin is removed, Show a clip of chicken production to improve pupils understanding Discuss the welfare of broiler chicken's dependent on the farming method and the impact on the quality of meat. Revise food hygiene with a particular focus on the handling of raw meat. Discuss how meat can be classified Discuss how the quality of meat can be affected by how the animal has been kept, what it is fed on, its age, how it is processed and cooked giving examples such as Wagyu beef and mutton. Discuss the importance of protein and revise the difference between HBV and LBV protein explaining the terms protein alternatives and protein complementation giving examples. Pupils learn how to make humous and flatbread which is an example of protein complementation. Discuss how fish can be classified and then show clips of sustainable and unsustainable fishing methods and discuss the environmental impact of unsustainable fishing methods and how consumers can make informed choices when buying fish. 		✓	
Resources	Year 8 Food Preparation and Nutrition booklet Eatwell guide colouring pencils		✓	✓

	Self-assessment colouring pencils Ingredients for practicals – sweet and sour chicken, tuna pasta, chilli con carne, humous and flatbread Help sheets YouTube links					
DRAFT	Complete self-assessment of completed practical Complete DRAFT of commodities assessment		✓			
Literacy	Tier 3 vocabulary: Salmonella, intensive farming, broiler chickens, freedom foods, organic, free range, protein alternative, protein complimentation, amino acids, by catch, discards; Tier 2 vocabulary: sustainable. classified,			/		
Numeracy	Compare the nutritional content of different types of mincemeat. Discuss the area in metres squared per chicken in chicken production.			1		
Challenge	Calculate the cost implications of large corporations such as KFC and Nando's using free range chicken and discuss whether consumers would agree with the price increase.	1				1

Topic	Food science						
NC Learning Intention	 Understand and apply the principles of nutrition and health. Become competent in a range of cooking techniques e.g. 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 ingredients. 	С	R	Е	Α	т	Е
Lesson Learning Intentions	 Biscuits can be made using a variety of methods (melting, creaming, rubbing in) the different ingredients and methods used will affect the sensory qualities. Caramelisation is the breaking down of sucrose (sugar) molecules when they are heated, which changes the colour, flavour and texture of the sugar as it turns into caramel. Shortbread biscuits are made using a 3:2:1 ratio (Flour:Butter:Sugar) and the high butter content makes the biscuits rich and the butter coats the gluten molecules in the flour making them shorter (shortening). Aeration is the ability of some fats to trap air when beaten together with sugar, this is called the creaming method and is used when making hobnob biscuits. 				1	1	✓

Lesson Tasks	 5. Raising agents are something that will make a product rise and become light and open in texture. The types of raising agents are Chemical – Bicarbonate of soda, baking powder Biological - Yeast Mechanical – Sieving, rubbing in, folding, beating, creaming, whisking Steam 6. Chocolate is made from cacao beans that are removed from the pod and fermented and then dried. Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Complete a food science investigation comparing the caramelisation of shortbread biscuits using different sugars. Make shortbread rounds to demonstrate the scientific process of shortening and revise the term gluten formation. Learn about the history of biscuits. Make hobnobs biscuits to demonstrate the process of aeration using the creaming method. Revise raising agents drawing on prior knowledge of cake making and bread making in year 7. Make gingernut biscuits to demonstrate chemical raising agents. Show a clip of the raw materials that chocolate is made of and discuss what to look for in good quality chocolate. Complete a sensory evaluation of chocolate using different sensory evaluation methods. Learn how to melt chocolate using a bain marie and how to feather chocolate onto a digestive biscuit. 		•	
Resources	Year 8 Food Preparation and Nutrition booklet Eatwell guide colouring pencils Self-assessment colouring pencils Ingredients for practical's – shortbread round, hob nob biscuits, gingernut biscuits, decorating biscuits Help sheets YouTube links	✓	1	✓
DRAFT	Complete self-assessment of completed practical Complete DRAFT of chocolate and biscuit assessment.	1		

	Tier 3 vocabulary: Caramelisation, shortening, gluten formation, aeration, chemical raising agents,				
Literacy	biological raising agents, mechanical raising agents, sensory evaluation		✓		
	Tier 2 vocabulary: combine, investigation				
	Explain ratios used for shortbread biscuit recipe, use digital scales to weigh the gingernut biscuit				
Numeracy	dough and divide it in half and then into eight equal pieces discussing how tolerance is used in the		1		
	food industry. Fractions are used when feathering chocolate for the cobweb design.				
Challenge	Investigate the historic impact of chocolate production and its links to the slave trade.	/			1

Topic	Food choice						
NC Learning Intention	 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 e.g. 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 ingredients. 	С	R	Ε	А	Т	E
Lesson Learning Intentions	 Food choice can be affected by a number of factors; cost of food, income, preferences, enjoyment, celebration, time available to prepare, time of day, lifestyle, healthy eating, physical activity level (PAL), food availability, seasonality. Cuisine is a traditional style of cooking and eating that has developed in a country or region of the world. Due to increased travel, immigration, and increased food importation the food we eat has become multi-cultural. British cuisine has many traditional dishes based on local ingredients available. Examples being Bakewell tart, Cornish pasty, shepherds pie, fish and chips, sausage casserole. Around the world, people choose to eat or avoid certain foods depending on their religious belief. Some beliefs have been followed for centuries and are well established as part of life. 				✓	√	1

	Religions which require food rules include Islam; Hinduism; Judaism; Sikhism; Buddhism;		
	Rastafari Movement.		
	6. People also make the choice to follow special diets due to moral, ethical or health reasons,		
	there are three main types of vegetarian; lacto-ovo vegetarians, lacto vegetarians and vegans.		
	7. There are two medical conditions that are directly related to food choice; Food intolerance and Food allergy. Some people develop food intolerances, which give them a variety of symptoms such as; pain and bloating in the abdomen, diarrhoea, nausea (feeling sick), muscle and joint aches and pains, general tiredness and weakness. A food allergy is the body having an allergic reaction to a food or an ingredient in food. Systems can include: skin rashes, Itchy skin and eyes, runny nose, Swollen lips, eye lids and face, wheezing and coughing. An allergic reaction can be very sudden and serious. It can lead to anaphylactic shock.		
	8. 12 pieces of information are mandatory on food labelling –		
	1. Nutritional information		
	• 2. Allergens		
	• 3. Ingredients list		
	4. The quantity of certain ingredients		
	• 5. Product name		
	6. Product description		
	7. Use-by or best before date		
	8. Net weight or quantity of the product		
	9. Place of origin		
	• 10. Cooking instructions		
	• 11. Storage instructions		
	12. Manufacturers details		
	Marketing is identifying consumers needs and wants, and using that information to supply		
	consumers with products that match their needs and wants. Examples of marketing		
	methods are TV adverts, social media adverts, free samples to try, promotional leaflets,		
	product placement, magazine and newspapers and advertisement hoardings.		
Lancas Tasks	Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching.	,	
Lesson Tasks	Discuss what affects people's food choice and how this changes at different life stages.	1	

			1			
	 Discuss different examples of cuisine from around the world and their characteristics referring to dishes that they have already made. Learn about British cuisine, traditional dishes, traditional cooking and regional dishes. Make sausage casserole a traditional British dish Learn about the food laws of the main religions Islam; Hinduism; Judaism; Sikhism; Buddhism; Rastafari Movement. Discuss foods that are eaten at times of year as part of the Christian faith and their significance. Learn the difference between a food allergy and an intolerance. Identify the main symptoms of food intolerances and the two main intolerances: lactose and coeliac. Identify the main allergens, the symptoms of an allergic reaction and the seriousness of anaphylactic shock using the case study of Natasha's law. Identify the three main types of vegetarians and the foods they cannot eat. 					
	 Make Vegetarian lasagne to demonstrate a dish suitable for a lacto-ovo vegetarian revising the term protein alternative. Label food packaging with all the mandatory information and discuss why it is mandatory. Learn how food is marketed and how different marketing methods are used for different target groups. 					
Resources	Year 9 Food Preparation and Nutrition booklet Eatwell guide colouring pencils Self-assessment colouring pencils Ingredients for practicals – sausage casserole and vegetarian lasagne Help sheets YouTube links		1		✓	1
DRAFT	Complete self-assessment of completed practical Complete DRAFT of food choice assessment		1			
Literacy	Tier 3 vocabulary: Tier 2 vocabulary:			1		
Numeracy	Compare the nutritional content of a traditional beef lasagne with a vegetarian alternative focusing particularly on the HBV protein and saturated fat.			1		
Challenge	Investigate the wider impact of following a vegetarian diet on health and environmental impact.	✓				✓

Topic	Food science						
NC Learning Intention	 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 e.g. 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 ingredients. 	С	R	E	Α	т	E
Lesson Learning Intentions	 Food is cooked for several reasons – To make food safe to eat To develop flavours in the food To improve the texture and appearance To improve its shelf-life To give people a variety of foods in their diet Cooking methods can be classified as water based, fat based and dry heat. There are three methods of heat transfer; conduction, convection and radiation Conduction is the transferring of heat through a solid object into food. Convection is the transferring of heat through a liquid or air into food. Radiation is the transferring heat by infra-red waves that heat up what they come into contact with. 				√	/	✓
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Discuss why we cook food and identify examples. Learn about different cooking methods drawing on dishes previously made and then classify them into the correct cooking method; water based, fat based or dry heat. Make Beef teriyaki to demonstrate conduction. Make swiss roll to demonstrate convection. Make Souvlaki to demonstrate radiation. 				✓		
Resources	Year 9 Food Preparation and Nutrition booklet Eatwell guide colouring pencils		1		1		1

	Self-assessment colouring pencils Ingredients for practicals – Beef teriyaki, swiss roll and souvlaki Help sheets YouTube links					
DRAFT	Complete self-assessment of completed practical		1			
Literacy	Tier 3 vocabulary: Conduction, convection, radiation, Tier 2 vocabulary: Molecules, insulator, conductor			1		
Numeracy	Estimation of time and measurements. Pupils will fill saucepans ¾ full, preheat ovens, estimate time when cooking.			1		
Challenge	Investigate how cooking methods affect the nutritional content of foods with a particular focus on fruits and vegetables.	1				1

Topic	Food safety						
NC Learning Intention	 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 e.g. 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 ingredients. 	С	R	Ε	А	Т	Е
Lesson Learning Intentions	 Micro-organisms are tiny forms of life, both plants and animals, only visible under a microscope. Micro-organisms are found in, sewage, water, air, dust, dirt, surfaces, equipment, in and on people, in and on animals, in and on insects and birds, rubbish, clothing, food, food packaging, soil. There are three groups of micro-organisms; bacteria, moulds and yeast which cause food to spoil and give you food poisoning (pathogenic). Enzymic browning is the discolouration of a fruit or vegetable due to the reaction of enzymes and oxygen in the air. Non-pathogenic micro-organisms are used in the production of cheese, bread and yogurt. 				✓	√	1

	 6. The five main types of pathogenic bacteria that cause food poisoning are Campylobacter – Found in raw meat and poultry, milk and untreated water. E.coli – Found in Mince beef and meat, raw milk and untreated water. Salmonella – Found in raw and undercooked poultry, eggs and meat, raw milk Listeria – Found in soft cheeses, cheese made from unpasteurised milk, salad vegetables, pâtés Staphylococcus aureus – Found in people, raw milk, cold cooked meats, dairy products. 				
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Learn what micro-organisms are and the three types of micro-organisms. Discuss where micro-organisms are found and how they can get onto our food. Recap on what micro-organisms need to grow referring back to bacterial growth learnt in year 7. Explain what the pH level is and how adjusting the pH slows the growth of micro-organisms and how this has been used for preservation for hundreds of years. Recap on temperature control to slow the growth of micro-organisms. Learn what enzymic browning is and how to slow or stop it. Make (some classes) guacamole and tortilla chips to demonstrate enzymic browning. Learn how non-pathogenic micro-organisms are used in food production with examples. Make cinnamon buns using non-pathogenic yeast as a biological raising agent. Watch a clip demonstrating poor food hygiene and identify examples of cross contamination. Revise types of pathogenic bacteria learnt previously – salmonella, e.coli, staphylococcus aureus Learn what to look for when buying fresh food and revise the safe storage of food. 			✓	
Resources	Year 9 Food Preparation and Nutrition booklet Eatwell guide colouring pencils Self-assessment colouring pencils Ingredients for practical's -	/		1	1
DRAFT	Complete self-assessment of completed practical	/			
Literacy	Tier 3 vocabulary: Micro-organisms, bacteria, yeasts, moulds, enzymic browning, ripening, campylobacter, E.coli, Salmonella, Listeria, Staphylococcus aureus, pathogenic and non-pathogenic		1		

	Tier 2 vocabulary: Multiply, contaminate,				
	Discuss the division of bacteria through the process of binary fission every 20 minutes. Explain				
Numeracy	temperature control from -18°C to 63°C and what happens to the micro-organisms. Discuss the		1		
	temperature milk is heated to in yoghurt production referring to cheese production learnt in year 7.				
Challenge	Investigate how bananas are processed and how ethylene is used to control their ripening	1			1

Topic	Food provenence						
NC Learning Intention	 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 e.g. 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 ingredients. 	С	R	Ε	А	Т	Е
Lesson Learning Intentions	 Food provenance is where our food comes from. Food sources can be categorised into the following four groups grown, gathered, reared and caught. Grown foods can be farmed intensively or organically using traditional farming methods or more recent developments include hydroponics and also genetic modification. Organic farming involves producing food as naturally as possible with minimum impact on eco systems. Food miles is the distance food travels from source to plate, this has an environmental impact. The carbon footprint of a product is the amount of carbon dioxide released into the atmosphere for the whole life cycle of that food product. The UK wastes approximately 9.5 million tonnes of food each year, with an estimated value of £14 billion. 				✓	✓	1

	 8. The principle of Genetic Modification is to copy a gene with its code for a particular characteristic and insert it into another living organism. This will then be able to produce that characteristic because it can follow the coded instructions. 9. The Fairtrade foundation is a charity set up to make sure that the producer receives a guaranteed and fair price for their product regardless of the price on the world market. 10. Foods are processed before we eat them for a variety of reasons; Primary processing is when foods are processed straight after harvest or slaughter to get them ready to be eaten or ready to be used in other food products. Secondary processing is when primary processed food products are turned into other food products. 				
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Learn about the four food sources and how hydroponic farming could be the future of farming. Compare intensive and organic farming. Make spring vegetable risotto using seasonal vegetables with minimal food miles and carbon footprint. Calculate the food miles for a variety of products from around the world and link this back to seasonality discussed in year 7. Compare the carbon footprint of different food products and discuss how the carbon footprint can be high and the food miles can be low and how to make an informed choice when buying food products. Discuss the problem with food waste, the reasons behind it and also how it can be reduced through better consumer habits. Make frittata using left over food Watch a clip explaining the pros and cons of Genetic modification and learn about golden rice linking it back to fortification learnt in year 8. Introduce the term food security and discuss how genetic modification could be a way of solving food insecurity. Learn the reasons for primary processing and examples of primary processing and secondary processing revising milk production (year 7) and cereal grain processing (year 8) 			•	
Resources	Year 9 Food Preparation and Nutrition booklet Eatwell guide colouring pencils Self-assessment colouring pencils Ingredients for practicals – Spring vegetable risotto, baked churros, frittata, Thai green chicken curry	•	/	1	1

DRAFT	Complete self-assessment of completed practicals		✓			
Literacy	Tier 3 vocabulary: Food provenance. Pesticides, Grown ingredients, Hydroponic production, Reared ingredients, Gathered ingredients, Caught ingredients, Intensive farming. Organic farming, Genetic modification (GM), Climate change, Greenhouse gases, Non-renewable energy, Fossil fuels, Carbon footprint, Food security, Sustainability, Fairtrade, Primary food processing, Secondary food processing, Milling, Nutritional modification, Fortification, Food additives, Pasteurisation, Ultra-heat treatment, Microfiltration, Homogenisation, Sterilisation, Drying, Starter cultures, Fermentation, Rennet. Whey Tier 2 vocabulary:			\		
Numeracy	Look at the distance food has travelled in miles from source to you. Discuss how carbon footprint is measured in kg or tonnes.			✓		
Challenge	Compare the carbon footprint of the average individual in different countries around the world and discuss how this is connected to their food consumption.	1				1

Topic	Macronutrients						
NC Learning Intention	 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 e.g. 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. 	С	R	E	Α	т	E
Lesson Learning Intentions	 Understand the source, seasonality and characteristics of a broad range of ingredients. There are three macronutrients, Carbohydrate, protein and fat. They are all sources of energy as well as having other functions Protein is made up of amino acids. 20 are essential and need to come from the food that we eat. High biological value (HBV) foods contain all the essential amino acids. Low biological value (LBV) foods do not but eaten together (protein complementation) will give you all the essential amino acids. Protein is needed for growth and repair. A deficiency of protein is called kwashiorkor. 				√	✓	1

	Protein production of meat and dairy foods has an environmental impact and consumers are being encouraged to reduce their meat and dairy consumption with future trends predicted to			
	see insects eaten as a protein source. 3. Carbohydrate is made by green plants during photosynthesis			
	 It is split into two groups, sugars - monosaccharides (glucose, galactose and fructose) Disaccharides (sucrose, lactose and maltose) Complex – Polysaccharides (starch, NSP, pectin, dextrin) 			
	 Excess amounts of carbohydrates can lead to tooth decay, obesity, type 2 diabetes, and coronary heart disease 4. Fat molecules are made up of one unit of glycerol and three fatty acids. They are either saturated or unsaturated (monounsaturated and polyunsaturated) 			
	 Fats are needed for energy, insulation, protection of bones and kidneys and sources of fat soluble vitamins A.D,E,K. Sources of fat can be visible or invisible 			
	- An excess of fat in the diet can lead to coronary heart disease			
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Explain the structure of protein and what protein alternatives and protein complementation is Identify the symptoms of protein deficiency kwashiorkor Learn how to make a fish pie which uses sources of HBV protein (fish, milk) revising how to make a roux sauce and smooth piped mash potato. Identify the environmental impact of meat and dairy consumption and introduce the concept of insect-based protein, complete a sensory analysis of insect protein. Learn how to make humous and flatbread an example of protein complementation Identify the functions and sources of carbohydrates in the diet Identify the importance of dietary fibre and how to adapt a recipe to increase the amount. Learn how to make an adapted carrot cake with increased fibre. Identify the health implications of a diet high in carbohydrates Identify the functions and sources of fats in the diet Learn how to make individual quiche a source of invisible fats (shortcrust pastry, eggs, cheese) revising shortcrust pastry making. 		\	
Resources		✓	1	J

	GCSE Food Preparation and Nutrition textbook, worksheets, YouTube clip and ingredients for Fish Pie, Humous and Flatbread, Carrot cakes, Individual quiches					
DRAFT	DRAFT of practical assessments (fish pie, humous and flatbread, carrot cakes, individual quiches), DRAFT of written assessment on Macronutrients		1			
Literacy	Tier 3 vocabulary: Amino acids, Essential amino acids, Biological value, Protein complementation. Fatty acids, Triglyceride, Visible fats, Invisible fats, Monosaccharides, Disaccharides, Polysaccharides Energy dense, BMR, PAL, Energy balance, Tier 2 vocabulary: recommendation; consumption; segment; portion; representation.			1		
Numeracy	Analyse nutritional information on food products and explain the health implications of consuming that type of food on the short and long term health of an individual.			1		
Challenge	Adaptation of practical assessments researched independently to demonstrate more skill.	/				1

Topic	Micronutrients						
NC Learning Intention	 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 e.g. 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. 	С	R	Ε	Α	т	E
Lesson Learning Intentions	 Understand the source, seasonality and characteristics of a broad range of ingredients. Micronutrients are vitamins and minerals and are needed in smaller amounts by the body. There are two types of vitamins; fat soluble and water soluble. Fat soluble vitamins are stored in the liver. The four fat soluble vitamins are A,D,E and K. Water soluble vitamins are not stored by the body so foods high in these vitamins need to be consumed more frequently. Vitamin A (Beta Carotene and Retinol) is needed to strengthen eyes, hair and skin and is found in milk, butter, fortified margarine, carrots and spinach. 				V	√	✓

- 4. Vitamin D (Cholecalciferol) is needed for strong bones and teeth and the best source of vitamin D is the sun, it is also found in oily fish, meat, eggs, butter, liver, fortified margarine and breakfast cereals
- 5. Vitamin E (Tocopherol) is needed as an antioxidant, found in plant foods, especially soya, olive oil, nuts, seeds, vegetable fat spreads
- 6. Vitamin K (Phylloquinone) is needed to clot blood found in green leafy vegetables, liver, cheese
- 7. There are many B group vitamins, we will focus on the following B1,B2,B3,B9, B12 B1 (thiamine), B2 (riboflavin), B3 (niacin) all help release energy from macronutrients Sources are meat, eggs, dairy foods, fresh and dried fruit, rice, and fortified breakfast cereals B9 (folate) and B12 (cobalamin) help make healthy red blood cells. B9 reduces the risk of spina bifida in unborn babies.
 - B9 is found in green leafy vegetables, yeast extract, chickpeas, wholegrain rice, added to flour and breakfast cereals
 - B12 does not occur naturally in plant foods. It is found in liver, meat, fish, cheese and is added to breakfast cereals.
- 8. Vitamin C (ascorbic acid) is an antioxidant, helps the body absorb iron in the small intestine and maintains connective tissue. Sources are citrus fruit and most fruit and vegetables.
- 9. Water soluble vitamins are damaged by heat and dissolve into water, they are also effected by light so need to be stored, prepared and cooked in a certain way to retain vitamins.
- 10. Calcium is a mineral needed for strong bones and teeth and found in dairy foods, green leafy vegetables and fortified flour and soya milk.
- 11. Iron is needed to make haemoglobin and is found in red meat, wholemeal bread, green leafy vegetables, dried apricots, plain chocolate, fortified breakfast cereals
- 12. Sodium controls the amount of water in the body, controls the nerves and muscles and helps the body to use energy. Sodium is found in salty foods such as cheese, bacon, gravy granules, olives.
- 13. Fluoride is needed to strengthen bones and the enamel in teeth. The sources are fish, seafood, water and tea.
- 14. Iodine is needed to produce thyroxin which is the hormone that controls metabolism and is found in seafood, vegetables, milk and dairy foods.
- 15. Phosphorus works with calcium to strengthen bones and teeth, is essential for energy release and other chemical reactions in the body and is found in a wide range of foods.

	16. Water is vital for life and we need to drink 1-2 litres a day or 6-8 glasses. Dehydration will lead to headaches, urine becoming darker, feeling weak and sick, overheating, confusion, changes in blood pressure and heart rate.				
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Identify the four fat soluble vitamins (A,D,E.K), where they are stored and their functions and sources. Identify the water-soluble vitamins (B1,B2,B3,B9,B12 and C), where they are stored and their functions and sources. Learn how to make a vegetable Balti and naan bread identifying their micronutrients Complete an experiment on vitamin retention and the sensory qualities of carrots looking at different cooking methods. Identify the deficiencies and excesses of the different micronutrients Identify the five main minerals (Calcium, Iron, Sodium, Fluoride, Iodine, Phosphorus) their functions and sources. Learn how to make baked cheesecakes identifying their micronutrients Identify the importance of water in the diet, how much we need to drink and what over hydration and dehydration will lead to Learn how to make a Christmas dinner. 			✓	
Resources	GCSE Food Preparation and Nutrition textbook, worksheets, YouTube clip and ingredients for baked cheesecake, roast dinner, vegetable Balti and naan bread	√		1	1
DRAFT	DRAFT of practical assessments (Vegetable balti and naan bread, baked cheesecake, Christmas dinner)), DRAFT of written assessment on Micronutrients	✓			
Literacy	Tier 3 vocabulary: Fat soluble, Water soluble, Antioxidant, Dehydrated, Life stages, Kilocalorie (kcal), kilojoule (kJ)		1		

	Tier 2 vocabulary: recommendation; consumption; deficiency; excess				
Numeracy	Identify the reference intake of certain vitamins and minerals in a recipe and analyse how the recipe could be adapted to increase or decrease the amount.		✓		
Challenge	Look at the case study of golden rice and how the genetically modified grain has helped lower the rates of vitamin A deficiency in the developing world.	\			✓

Topic	Life stages and dietary diseases						
NC Learning Intention	 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 e.g. 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 ingredients. 	С	R	Ε	А	т	Ε
Lesson Learning Intentions	Current dietary guidelines include the eight government guidelines on healthy eating and the Eatwell guide. When planning a balanced meal, the portion sizes, and costing need to be considered Dietary needs change at different life stages, the main life stages are Preschool children aged 1 – 4 Small regular meals should be eaten, new foods should be introduced, snacking between meals should be avoided, the Eatwell guide does not yet apply, all the nutrients are needed. Children aged 5 – 12 Follow the Eatwell guide, all macro and micro nutrients are essential but limit free sugars. Eat regular meals Teenagers All Macronutrients are essential as well as all minerals, vitamins A,B group, C,D,E. Calcium and vitamin D are important to build bone density and iron and vitamin C is important particularly				✓	/	1

	when girls start menstruating. Vitamin B also becomes more important when teenagers stay up late and struggle with concentration and tiredness. Adults The body stops growing at 21 so maintenance becomes more important and staying active is also vital as the metabolism slows down. Elderly Body systems start to slow down and blood pressure may rise, exercise is important to stay strong and active and maintain energy balance. All macro nutrients are essential and calcium and vitamin D is needed due to the increased risk of osteoporosis, vitamin C and iron are needed to avoid anaemia and scurvy and antioxidants are needed due to a weakening of eyesight. When planning meals it is important to consider that people will not eat certain foods out of choice, due to an intolerance or allergy or for medical reasons.			
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Identify what happens to the body, which nutrients are important and what eating habits and lifestyle choices need to be followed for each life stage; Preschool children, children, teenagers, adults, elderly. Learn how to break down a whole chicken into 10 pieces and then learn how to use it to cook the following dishes – chicken wings, Thai green curry, chicken noodle soup, chicken katsu curry and chicken slice Select a recipe independently that is suitable for a chosen life stage and then write a timeplan and complete a detailed equipment list in preparation for an assessed practical working independently to make the dish. Revise the dietary needs of specific groups- vegetarians, coeliacs, people who are lactose intolerant, those following a high-fibre diet, a low sugar diet, a fat reduced diet and a low-sodium diet. Select recipes and adapt them to fit the needs of different dietary groups. 		\	
Resources	GCSE Food Preparation and Nutrition textbook, worksheets, YouTube clip and ingredients for breaking down a chicken, Thai green curry, chicken noodle soup, chicken katsu curry	✓	1	1

DRAFT	DRAFT of practical assessments (Thai green curry, chicken noodle soup, chicken katsu curry), DRAFT of practical assessment on dietary groups		1			
Literacy	Tier 3 vocabulary: Osteoporosis, rickets, osteomalcia, anaemia, obesity, type 2 diabetes, coronary heart disease, high cholesterol Tier 2 vocabulary: consumption, intake, recommendation			1		
Numeracy	Learn about the portion sizes for different food groups and then recommended reference intake for different life stages of the macro and micronutrients			1		
Challenge	Adapt a recipe to meet the needs of different dietary groups showing an understanding of the nutritional needs and how to adapt a recipe to make it more appealing, for example hiding vegetables in a sauce for young children.	1				1

Topic	Functional and chemical properties of food						
NC Learning Intention	 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 e.g. 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 ingredients. 	С	R	E	Α	Т	E
Lesson Learning Intentions	Students have previously learnt about the nutritional content of protein, carbohydrates and fats and will now focus on their functional and chemical properties. Also learning about raising agents. Protein Protein is made up of amino acids that are folded together in bundles, these become denatured and the bonds break and they unravel. This is caused by heat, acids, air bubbles, mechanical agitation. Denatured proteins join and coagulate. Over coagulation causes syneresis where the water molecules are squeezed out. Gluten is a combination of gliadin and glutenin proteins, when a liquid is added they combine to form gluten. Gluten gives dough its plasticity and elasticity.				✓	✓	1

	Foams are formed when gases (often air) are trapped inside a liquid to form a gas-in-liquid foam. An example of this is meringue. The egg whites are denatured by whisking and the air bubbles set in the mixture due to coagulation. Carbohydrates Gelatinisation is the swelling of starch granules in a liquid to the point where they burst and explode and thicken the sauce. Dextrinisation is the breaking up of starch molecules into smaller groups of glucose molecules when they are exposed to dry heat. This is seen when toast is cooked and has a golden-brown colour. Caramelisation is the breaking up of sugar molecules when they are heated, which changes the colour, flavour and texture. Fats Plasticity is the ability of a fat to soften over a range of temperatures Shortening is the ability of fats to shorten the length of gluten molecules in the pastry. Aeration is the ability of fats to trap lots of air bubbles when beaten together with sugar. Emulsification is either keeping drops of oil or fat suspended in a liquid preventing them from separating. Raising agents Raising agents are needed to make products light and open in texture. There are three types of raising agents 1. Chemical (baking powder, bicarbonate of soda, cream of tartar) 2. Mechanical (sifting, rolling, folding, beating, whisking, rubbing in) 3. Biological (yeast) Raising agents work by the action of heat, moisture or acidity or a combination of all three. They produce CO2 and/or air to make the product rise Steam is also an effective raising agent used in flaky and choux pastry and batters.			
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Learn the structure of protein and the stages of denaturation, coagulation and syneresis. Complete a protein experiment, where three different protein foods (steak, fish and cheese) are cooked and the stages of denaturation, coagulation and syneresis are recorded at one minute intervals. Complete an experiment to demonstrate the use of an acid to marinade chicken wings. 		/	

	 Learn the functional and chemical properties of the ingredients in Babka bread Learn how to make Babka bread, a complex practical reinforcing the scientific processes that are taking place during the practical. Learn how the different chemical raising agents work. Complete an experiment making cakes to demonstrate the role of the chemical raising agents. Learn the functional and chemical properties of profiteroles Learn how to make profiteroles or eclairs, a complex practical reinforcing the scientific processes that are taking place during the practical. Learn about the functional and chemical properties of flaky pastry and the term plasticity Learn how to make flaky pastry and use it to make a chicken slice (velouté) Learn about dextrinization and caramelisation Learn about the functional and chemical properties of lemon meringue pie Learn how to make Lemon meringue pie reinforcing the scientific processes that are taking place during the practical. Learn about aeration and make chocolate mousses to demonstrate. 					
Resources	GCSE Food Preparation and Nutrition textbook, worksheets, YouTube clip and ingredients for Babka bread, chocolate eclairs, flaky pastry, lemon meringue pie, chocolate mousse	,	/		1	✓
DRAFT	DRAFT of practical assessments (Babka bread, chocolate eclairs, lemon meringue pie, chocolate mousse), DRAFT of written assessment on food science	,	/			
Literacy	Tier 3 vocabulary: Chemical bonds, Denaturation, Coagulation, Gelatinisation, Dextrinisation, Caramelisation, Plasticity, Shortening, Aeration, Emulsification, Raising agent, Carbon dioxide, Tier 2 vocabulary: Bond, break, molecules, incorporate, reaction			1		
Numeracy	Coagulation of protein foods occurs at different temperatures. The swelling of starch granules occurs at 60,80 and 100°C. Caramelisation of sugar occurs when heat is applied to sugar, the rise in temperature causes higher amounts of colourisation. Temperature control for bread making and choux pastry			✓		

Challenge	Adaptation of the practical assessments (Babka bread, choux pastry, lemon meringue pie and	,			/
Challenge	chocolate mousse) to show more complex skills and the ability to adapt a recipe.	•			•

Year 11

Topic	NEA 1						
NC Learning Intention	 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 e.g. 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 ingredients. 	С	R	E	А	т	Е
Lesson Learning Intentions	NEA 1 is worth 15% of the final grade Students will investigate the working characteristics and the functional and chemical properties of a particular ingredient through practical investigation. They will produce a report which will include research into 'how ingredients work and why'. Outcome: Written or electronic report including photographic evidence. The inclusion of photographic evidence is to mitigate against plagiarism and is for authentication purposes. Assessment: Students produce a report of between 1,500–2,000 words (approx. 6–8 sides of A4). Practical investigations are a compulsory element of this non-exam assessment. Time: Not to exceed 10 hours. Content: Students will individually record their practical investigation and draw conclusions. The report could include a range of communication methods including: charts, graphs and diagrams.				✓	✓	✓

	Specialist terminology will be used to clearly communicate the research and investigation findings. The report must include photographic evidence authenticating the practical investigation.	
	• Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Section A: Research (6 marks) Students carry out research into the ingredients to be investigated. The research will demonstrate how ingredients work and why. The outcome of the research should clearly inform the nature of the practical investigation and be used to establish a hypothesis or prediction for the food investigation task. Students should: • analyse the task, explaining the background research • carry out secondary research, using different sources, focusing on the working characteristics, functional and chemical properties of the ingredients • analyse the research and use the findings to plan the practical investigation • establish a hypothesis/predict an outcome as a result of the research findings. The hypothesis should be a statement which may be proved or disproved.	
Lesson Tasks	Section B: Investigation (15 marks) Students carry out practical investigations, related to the hypothesis or prediction, which demonstrate understanding of how ingredients work and why. Students will record the results of the practical investigation. Students should investigate and evaluate how ingredients work and why through practical experimentation. Each investigation should be related to the research and have a clear aim which can then be concluded. The number of investigations will be determined by the complexity of the investigations. A range of appropriate testing methods should be identified and carried out to record the results e.g. annotated photographs, labelled diagrams, tables, charts, sensory testing methods, viscosity tests.	
	Section C: Analysis and evaluation (9 marks) Students will analyse and evaluate the results of the investigation and reflect upon their findings. Explanations will demonstrate how the results can be applied in practical food preparation and cooking. Students should: • analyse and interpret the results of the investigative work. The results will be linked to the research and data explaining the working characteristics, functional and chemical properties of the ingredient(s) • evaluate	

	the hypothesis/prediction with justification • explain how the results/findings can be applied in practical food preparation and cooking.					
Resources	Ingredients and equipment for experiments, a pupil booklet with guidance on NEA1		1		1	1
DRAFT	Feedback can only be given as a whole class and cannot be given individual inline with the exam board guidance.		1			
Literacy	Tier 3 vocabulary: Chemical bonds, Denaturation, Coagulation, Gelatinisation, Dextrinisation, Caramelisation, Plasticity, Shortening, Aeration, Emulsification, Raising agent, Carbon dioxide, Tier 2 vocabulary: Bond, break, molecules, incorporate, reaction, viscosity			1		
Numeracy	The recording of experiments results can be completed as a bar chart, pie chart or in a table and has to be analysed and interpretated by the pupil.			✓		
Challenge	Pupils must work independently and set their own challenge using the marking criteria set by the exam board. No individual feedback can be given, and all experiments must be planned independently by the pupil.	1				1

Topic	NEA 2						
NC Learning Intention	 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 e.g. 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 ingredients. 	С	R	E	Α	т	E

Lesson Learning Intentions	NEA 2 is worth 35% of the final grade For the Food preparation assessment, (Task 2), one task is to be selected from the three tasks set by AQA issued on 1 November of the academic year in which it is to be submitted. In this task, students will prepare, cook and present a final menu of three dishes to meet the needs of a specific context. Students must select appropriate technical skills and processes and create 3–4 dishes to showcase their skills. They will then produce their final menu within a single period of no more than 3 hours, planning in advance how this will be achieved. Students must work independently eg making their own judgements about cooking methods and making changes to recipes to improve palatability. Students must work safely and hygienically. It is compulsory that students will adhere to food safety principles at all times throughout this assessment. Students apply their knowledge of food safety principles within the planning for the 3 hour assessment (Section C). The application of food safety principles will be credited and assessed when making the final dishes (Section D). Outcome: Written or electronic portfolio including photographic evidence authenticating the practical outcomes. Photographic evidence of the three final dishes must be included. Assessment: Students will produce a concise portfolio. Students will prepare, cook and present a final menu of three dishes within a single period of no more than 3 hours, planning in advance how this will be achieved. On completion of the making of the final dishes, students will analyse and evaluate the outcomes through sensory testing, nutritional analysis, costing and identify improvements to their dishes. The portfolio is not to exceed 20 sides. A menu is a selection of three dishes that are produced to meet the demands of the chosen task.			✓	✓		
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	Time: Not to exceed 20 hours (including up to 3-hour final assessment within a single block period).		
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Section A: Researching the task (6 marks) Students will research and analyse the: life stage/dietary group or culinary tradition related to the task. Students should: • analyse the task by explaining the research requirements • carry out relevant research and analysis related to the: life stage, dietary group or culinary tradition • identify a range of dishes eg by mindmapping, or using annotated images • select and justify a range of technical skills to be used in the making of different dishes. Section B: Demonstrating technical skills (18 marks) Students will make 3–4 dishes to showcase their technical skills. Students should: • demonstrate technical skills in the preparation and cooking of three to four dishes. Refer to the Food preparation skills section of the specification • select and use equipment for different technical skills in the preparation and cooking of selected dishes. Food safety principles should be demonstrated when storing, preparing and cooking • identify the technical skills within each dish. Photographic evidence will be needed to authenticate the technical skills. Students will select three dishes to make which allow them to showcase their technical skills. Students will select three dishes to make which allow them to showcase their technical skills shale to the task and research and be dishes that have not been made previously. For example, a student could make the following initial dishes to demonstrate technical skills: 1 fish pie (technical skills shown: filleting fish, making a sauce, vegetable preparation, piping potato). 2 Beef lasagne (technical skills shown: pasta making, sauce making, vegetable preparation). 3 Traditional quiche (technical skills shown: shortcrust pastry, lining a flan ring). 4 Flavoured bread rolls (technical skills shown: bread making: kneading, shaping). For the final menu, they could choose to produce: 1 Fish cakes with parsley sau		

	Within the plan, food safety principles will be demonstrated when storing, preparing, cooking and presenting the final dishes • demonstrate appropriate use of the 3 hours to dovetail tasks to prepare, cook and present the final three dishes • not repeat any dishes from the 'demonstrating technical skills' stage when making their final menu.					
Resources	Equipment needed for individual practical's, pupils will be expected to bring in their own ingredients unless they are pupil premium where they will be provided.		1		1	1
DRAFT	Feedback can only be given as a whole class and cannot be given individual in line with the exam board guidance.		1			
Literacy	Tier 3 vocabulary: Osteoporosis, rickets, osteomalcia, anaemia, obesity, type 2 diabetes, coronary heart disease, high cholesterol, Fat soluble, Water soluble, Antioxidant, Dehydrated, Life stages, Kilocalorie (kcal), kilojoule (kJ), Amino acids, Essential amino acids, Biological value, Protein complementation. Fatty acids, Triglyceride, Visible fats, Invisible fats, Monosaccharides, Disaccharides, Polysaccharides, Energy dense, BMR, PAL, Energy balance Tier 2 vocabulary: Excess, deficiency, consumption, intake, recommendation			√		
Numeracy	A nutritional analysis programme will be used to analyse the three dishes prepared in the final practical exam. A questionnaire can be created and analysed as part of the research section. A detailed timeplan will be produced for the final practical exam showing timings for the three hour period.			✓		
Challenge	Pupils must work independently and set their own challenge using the marking criteria set by the exam board. No individual feedback can be given, and all dishes must be chosen and planned independently by the pupil.	1				>

	Food security					
Lesson Tasks	 Low stakes knowledge retrieval exercise (LSKRE) to advise or inform adaptive teaching. Retrieval practice on each topic using the mock exam completed before Christmas to inform areas of weakness. Completion of exam questions. Quizzes completed on the white boards 				✓	
Resources	Past papers, white boards and pens		1		1	1
DRAFT	Marking of exam questions using the marking criteria		1			
Literacy	Tier 3 vocabulary: All subject specific words featured previously will be revised. Tier 2 vocabulary: examine, analyse, evaluate, identify, state.			1		
Numeracy	Data response questions will feature in the written examination and can include the analysis of nutritional information, sensory evaluation chart, bar chart			1		
Challenge	Use of Seneca learning to complete independent revision, use of revision books or cards to further improve understanding of the topics needed in the final exam.	1				1