

Year 10 Topics

In year 10 we teach the following topics over the course of the year. Each topic draws on prior learning from previous years and builds on understanding from the KS3 programme of study. Each topic develops and deepens the Core knowledge that will underpin all areas of the curriculum at KS4 and KS5.

Topic	Rationale	Knowledge acquisition	Key vocabulary	Skills and enrichment
Food commodities	Students will learn the value of food commodities within the diet. They will learn the range of foods, ingredients and from the major commodity groups they belong.	The value of commodities	<ul style="list-style-type: none"> Commodity, value, diet, contribution, characteristic, storage, food contamination, origins, physical, chemical, change, complementary actions, recipe. Bread, cereal, rice, pasta, potatoes, flour, oats. Fruit, vegetables, fresh, frozen, dried, canned, juiced. Meat, cheese, yogurt. Meat, fish, poultry, eggs Soya, tofu, beans, nuts, seeds Butter, oils, margarine, sugar, syrup 	<p>Students will demonstrate their knowledge into practice through a variety of practical situations.</p> <p>Students will learn through explore, investigate, and research tasks</p> <p>Research skills – textbooks & internet.</p> <p>Classification/grouping/sorting/organising skills.</p> <p>Discussion (Oracy development).</p> <p>Communication skills, verbal & non-verbal</p> <p>Development of language skills, literacy and extended writing.</p>
		The working characteristics of ingredients		
		Origins of food		
		Physical and chemical changes that can occur		
		Complementary actions		
		Prepare and cook		
Principles of nutrition	Students will learn the definition of macronutrients and micronutrients in relation to human nutrition. Students will learn the dietary value of water and dietary fibre.	Definition of macro and micronutrients	<ul style="list-style-type: none"> Protein, essential amino acids, non-essential amino acids, complementary proteins Fats, oils, lipids, saturated, monosaturated, polyunsaturated, essential fatty acids Carbohydrates, monosaccharides, disaccharides, polysaccharides Fat soluble vitamins, vitamin A, vitamin D, water soluble vitamins, B vitamins, B1 thiamin, B2 riboflavin, B3 niacin, B12 cobalamin, B9 folic acid (folate) and vitamin C Minerals, calcium, iron, potassium, magnesium 	<p>Students will demonstrate their knowledge into practice through a variety of practical situations.</p> <p>Students will learn through explore, investigate, and research tasks</p> <p>Research skills – textbooks & internet.</p> <p>Classification/grouping/sorting/organising skills.</p> <p>Discussion (Oracy development).</p> <p>Communication skills, verbal & non-verbal</p> <p>Development of language skills, literacy and extended writing.</p>
		Main sources and specific function		
		Dietary reference values		
		Consequences of malnutrition – (over and under)		
		Complementary actions of nutrients		

			<ul style="list-style-type: none"> Trace elements, iodine, flouride 	
Diet and good health	Students will learn the energy requirements of individuals and have an awareness of common dietary issues. Learners should be able to use their knowledge of nutrition and current dietary guidelines. Students will learn common dietary issues.	Recommended guidelines for a healthy diet	<ul style="list-style-type: none"> RDI, energy value, requirements, percentage energy, values, protein, fat, carbohydrate, deficiencies, macronutrients, micronutrients, dietary fibre, Life stages, toddlers, teenagers, early/middle/late adulthood Specific dietary needs, nutritional deficiencies, coeliac disease, type 2 diabetes, dental caries, iron deficiency, anaemia, obesity, cardio vascular disease (CVD), calcium deficiency, bone health, osteoporosis, nut/lactose/dairy intolerance, coronary heart disease (CHD), cholesterol, liver disease Lifestyle, choice, vegetarians, lacto, lacto-ovo, vegan, religious beliefs – Hindu, Muslim, Jewish, occupation, activity level Complementary actions, basic metabolic rate (BMR), physical activity level (PAL) Recipe, meal, nutritional information, data, content, modify, reduce, increase 	<p>Students will demonstrate their knowledge into practice through a variety of practical situations.</p> <p>Students will learn through explore, investigate, and research tasks</p> <p>Research skills – textbooks & internet.</p> <p>Classification/grouping/sorting/organising skills.</p> <p>Discussion (Oracy development).</p> <p>Communication skills, verbal & non-verbal</p> <p>Development of language skills, literacy and extended writing.</p>
		How nutrients work in the body		
		Changes in nutritional needs throughout life stages and state of health		
		Individual specific lifestyle needs		
		Plan a balanced diet for a variety of nutritional needs		
		Calculate and use nutritional data		
		Energy balance		
The science of food	Students will learn how the preparation and cooking of food affects the sensory and nutritional properties.	Why food is cooked	<ul style="list-style-type: none"> Properties, sensory, nutritional, digestion, taste, texture, appearance, conserve, modify, nutritive value, palatability, functional, chemical 	<p>Students will demonstrate their knowledge into practice through a variety of practical situations.</p> <p>Students will learn through explore, investigate, and research tasks</p>
		How heat is transferred to food		
		Cooking methods		
		The use and control of micro-organisms		

	<p>Students will be given the opportunity to experiment and modify recipes. Students will learn microbiological conditions for growth and how to keep food safe.</p>	<p>Working characteristics of food, reasons and how to remedy problems</p> <p>Safe food storage</p> <p>Conditions for bacterial growth</p> <p>Food poisoning</p> <p>Food wastage</p>	<ul style="list-style-type: none"> • Heat transfer, conduction, convection, radiation, boiling, simmering, steaming, coagulation, denature, fermentation, gelatinisation, dextrination, shortening, aeration, plasticity, emulsification, foam formation, gluten. Enzymic browning, oxidisation • Inadequate, unacceptable • Micro-organisms, bacteria, refrigeration, freezing, dry/cold storage, packaging, date marks, labelling, growth conditions, preservation, mould, yeast, food spoilage, temperature, PH, moisture, time, cross-contamination, pickling, jam making, bottling, vacuum packing, hygiene, • Signs, symptoms, food poisoning, salmonella, campylobacter, e-coli, staphylococcus • Wastage, environment, financial implications 	<p>Research skills – textbooks & internet.</p> <p>Classification/grouping/sorting/organising skills.</p> <p>Discussion (Oracy development).</p> <p>Communication skills, verbal & non-verbal</p> <p>Development of language skills, literacy and extended writing.</p>
<p>Where food comes from safety when buying, storing, preparing and cooking food.</p>	<p>Students learn the development of culinary traditions in British and International cuisine. Students will learn where food originates and the impact on the environment. Students will learn about the stages in food processing, production,</p>	<p>Food origins</p> <p>The impact on the environment</p> <p>Sustainability</p> <p>Development of different cuisines</p> <p>Stages of food processing</p> <p>Menus and meal structures</p>	<ul style="list-style-type: none"> • Food origins, grown, reared, caught, food miles, carbon footprint, local, environment, value, waste, global markets, communities, food poverty, food security, country, region • Packaging • Culinary traditions, British, international, modern cooking methods, cooking methods, equipment, presentation, serving, commodities • Characteristics, eating patterns, nutritional guidelines, fortification, modified, flavour intensifiers, stabilisers, preservatives, colourings, emulsifiers, additives 	<p>Students will demonstrate their knowledge into practice through a variety of practical situations.</p> <p>Students will learn through explore, investigate, and research tasks</p> <p>Research skills – textbooks & internet.</p> <p>Classification/grouping/sorting/organising skills.</p> <p>Discussion (Oracy development).</p> <p>Communication skills, verbal & non-verbal</p> <p>Development of language skills, literacy and extended writing.</p>

	modification and fortification.		<ul style="list-style-type: none"> Primary processing, secondary processing, technological development, transporting, cleaning, sorting, raw, sensory properties, nutritional properties 	
Cooking and food preparation	Students will learn factors affecting food choice. Students will learn skills to enable them to plan, prepare, cook and serve a variety of recipes. Students will learn to consider consumer influence and choice. They will develop recipes to meet specific nutritional and lifestyle needs. Practical skill process; dry heat and fat based hob methods, grilling, selecting and adapting cooking processes, application of large scale/timesaving equipment, tenderising/marinating, dough making, testing for readiness, judging and manipulating sensory properties.	Sensory analysis and how to access the quality of food using sensory descriptors	<ul style="list-style-type: none"> Sensory perceptions, choices, taste receptors, sensory qualities, taste panels, judge, manipulate, test for readiness Factors, influence, enjoyment, preference, testing, food choice, seasonality, cost, availability, activity, celebration, occasion, culture, ethical belief, religion, medical, personal choice Informed choice, balanced diet, variety, portion size, nutritional information, food labelling, marketing, influences, consumer Planning, cooking, dish, recipe, dovetailed, preparation, ingredient, selection Weigh, measure, knife skills, bridge and claw grip, solid, liquid, combine, shape, tenderise, marinate, setting, shape, finishing, dough, glaze, garnish, time management Influence, lifestyle, consumer choice, adapting, developing, review, evaluate, improvements, amending, 	<p>Students will demonstrate their knowledge into practice through a variety of practical situations.</p> <p>Students will learn through explore, investigate, and research tasks</p> <p>Research skills – textbooks & internet.</p> <p>Classification/grouping/sorting/organising skills.</p> <p>Discussion (Oracy development).</p> <p>Communication skills, verbal & non-verbal</p> <p>Development of language skills, literacy and extended writing.</p>
		A range of factors that affect the food choices we make		
		Planning recipes for a variety of users and different nutritional needs		
		Preparation and cooking of ingredients to make a selection of recipes		
		Presentation and finishing techniques		
		The application of food hygiene and safety		
		To follow a recipe independently and make own judgements when considering timings, flavour, texture and appearance		
Recipe development				
Practice NEA 1 – food	Students will complete	use a range of relevant sources to research the task	Generic task vocabulary:	

science experiment	Create a plan of action	<ul style="list-style-type: none"> • Research, sources, independent, primary, secondary, analyse, record, findings • Plan of action, time plan • Hypothesis, predict, outcome • Working characteristics, chemical properties, functional, modifications, trial • Review, conclude, improvements, amend, sensory descriptors, adjustments, preference, formulate, justify, reason, failure, proven <p>Specific key words required for the task – released 1st September</p>	<p>Students will demonstrate their knowledge into practice through a variety of practical situations.</p> <p>Students will learn through explore, investigate, and research tasks</p> <p>Research skills – textbooks & internet.</p> <p>Classification/grouping/sorting/organising skills.</p> <p>Discussion (Oracy development).</p> <p>Communication skills, verbal & non-verbal</p> <p>Development of language skills, literacy and extended writing.</p>
	Predict an outcome		
	Demonstrate their ability to review and make improvements to the investigation by amending the ingredients to include the most appropriate ingredients, process and cooking method		
	Demonstrate an understanding of the working characteristics and functional and chemical properties of the ingredients selected		
	Record the outcomes of their investigation, the modification and adjustments made during the preparation and cooking process, and the sensory preference tests carried out to formulate the results		
	Analyse the data and results collected, draw conclusions		
	Justify findings, the reasons for the success or failure of the ingredients selected to trial		
	Evaluate the hypothesis and confirm if the prediction was proven		