



Learning Aims and Curriculum Intent

Year 9 curriculum intends to provide students with hands-on practical experiences, promote scientific inquiry, and foster a deeper understanding of the connections between food science and everyday life. By the end of Year 9, students will have the knowledge and skills to make informed food choices, prepare meals using a range of cooking techniques, and critically evaluate the nutritional aspects of their diet. These learning aims will help students develop a lifelong appreciation for the role of food in health, culture, and wellbeing.

Cycle	Content and key Questions	Knowledge and Skills	Assessment
1	<p>Carbohydrates – with the working characteristics of carbohydrates. Can you describe the structure of carbohydrates including the difference between sugars, starches, and non-starch polysaccharide (NSP/fibre)? What are the functions of carbohydrates in the diet? What are the functional characteristics of carbohydrates? What are the sources of the different types of carbohydrates in the diet? What happens if we have excess of carbohydrates in our diet?</p>	<p>The structure of carbohydrates including the difference between sugars, starches, and non-starch polysaccharide (NSP/fibre) The functional characteristics of carbohydrates. The functions of carbohydrates in the diet The functions and food sources of dietary fibre</p>	<p>Retrieval tasks is used to shape knowledge acquisition and understanding.</p> <p>Class discussions Short, regular quizzes Individual oracy</p>
3	<p>Protein - the working characteristics of protein. Can you explain the function of proteins in a healthy balanced diet? Do you know types of protein? Can you differentiate between LBV and HBV? Do you know the sources of proteins? Can you explain the functional characteristics of protein?</p>	<p>Functional characteristics of protein in food: When moist or dry heat is applied to protein foods they coagulate (Set). When proteins are heated their chemical structure is changed – Denaturation. Functions of protein in food, LBV and HBV, Syneresis, alternatives to animal protein</p>	<p>Quick fire questions</p>
5	<p>Fats - the working characteristics Fats. What are the functions of fats? Can you explain the functional characteristics of fats? What are the differences between saturated and unsaturated fats? Can you list functions and food sources of Omega 3 and 6 fats? What are the health problems related to high fat intake?</p>	<p>Triglyceride Omega 3 and Omega 6 Fatty Acids Saturated and unsaturated fat Functions, and food sources of fats Functional characteristics of fats Polyunsaturated Visible and invisible fat</p>	
7	<p>Assessment lesson Based on Carbohydrates, Protein and Fats, and their functional and chemical characteristics</p>		<p>Practical & written assessment. 20 marks</p>
8	<p>Vitamin and minerals Define the term 'synthesis.' List the fat-soluble vitamins. Which group of vitamins can travel through the blood freely? What is the common function of Vitamin B1, B2 and B3? Explain the effect of a thiamine deficiency. What is pellagra? What causes pellagra? What is spina bifida? What causes spina bifida?</p>	<p>Types of vitamins, functions, food sources and deficiency Water soluble vitamins Fat soluble Synthesis Osteoporosis Macro and micro minerals, food sources, functions and deficiency</p>	<p>Some examples include:</p> <p>Short quizzes Student interviews Student reflections Class discussions Individual oracy</p>
10	<p>Raising agent Learning about the types and functions of raising agents in baking. Experimenting with leavening agents in baked goods. Understanding the impact of raising agents on the final product.</p>	<p>Types of raising agent Mechanical: examples in food Biological: and examples in food Chemical: examples in food</p>	<p>Diagnostic assessments are structured around the lesson, to understand student knowledge and engage the whole class.</p> <p>Some examples include:</p>
12	<p>Analysis and evaluation Using the Lemmon Meringue pie How would you use analytical techniques to assess the sensory attributes of food, such as taste, texture, aroma, and appearance? How has the nutritional information assisted you to make informed dietary choices? identify areas for improvement and develop strategies to enhance the overall quality of dishes.</p>	<p>How to use the nutrition programme Analysis of the nutrients Sensory information Costings The effectiveness of planning and making of dishes Improvements and modification</p>	<p>Short quizzes Student interviews Student reflections Class discussions Individual oracy</p>
14	<p>Food provenance – processing and preserving methods. Investigating various methods of food preservation and processing. Learning about traditional and modern food preservation techniques. Identifying the impact of food processing on food quality and shelf life.</p>	<p>High temperature methods Low temperature methods Chemical preservation Modified atmosphere packaging (MAP)/Controlled atmosphere packaging (CAP).</p>	<p>Formative assessments help with tracking how student knowledge is growing and changing in the class in real-time.</p>

16	Enzymic browning. Explain the science behind enzymatic browning in fruits and vegetables. How can we prevent or delay enzymatic browning. Explain the visual and nutritional consequences of enzymic browning.	The science behind enzymatic browning in fruits and vegetables. How to prevent or delay enzymatic browning. Understanding the visual and nutritional consequences of enzymic browning.	
17	Assessment lesson. Vitamin and minerals. Raising agent. Enzymic browning. Food provenance – processing and preserving methods. Macronutrients and micronutrients		Practical & written assessment 40 marks
18	Food Science: Why we cook food. Can you recall why food is cooked? Explain how heat is transferred through different cooking methods. What are the effects of cooking methods? What are the effects of processing on the nutritional value of foods?	Gaining insights into the chemical and physical changes that occur during cooking. Understanding the reasons for cooking, such as improving flavour, texture, and safety. Applying cooking techniques to various food items.	Retrieval tasks is used to shape knowledge acquisition and understanding. Diagnostic assessments are structured around the lesson, to understand student knowledge and engage the whole class.
20	Factors influencing food choice. Investigating personal, social, and cultural factors affecting food choices. Examining the influence of media, advertising, and peers on dietary decisions. Developing critical thinking skills to make informed food choices.	Personal, social, and economic factors Religious cultural beliefs Ethical and moral beliefs	Some examples include: Short quizzes Student reflections Class discussions Individual oracy
22	Additives Explain additives and state types and functions. Explain functional foods and provide examples. What are additives? Why are additives used? Can you list advantages and disadvantages of additives? Types of food additives and functions. What are functional foods?	Exploring food additives, their functions, and potential impacts. Developing skills in analysing food labels and ingredient lists. Understanding the implications of food additives on food quality and safety.	
23	End of year assessment Carbohydrates, Protein and Fats, and their functional and chemical characteristics. Vitamin and minerals. Raising agent. Enzymic browning. Food provenance – processing and preserving methods. Macronutrients and micronutrients. Food science. Additives. Factors influencing food choice.		Written assessment. 60 marks
24	End of rotation RETEACH and evaluation		

Examples of practical	2. Lasagne 4. Shepherds pie	6. Chicken Fajitas 8. DW: Thai green curry (Chicken)	10. Pavlova 12. Quiche/Lemon Meringue Pie	14. Hot Cross Buns 16. Own recipe	18. 20.
Key terminology	Staple food, sustainability, conduction, convection, radiation, claw grip, bridge hold, cross-contamination, gelation, coagulation, reduction, emulsion, macronutrients, micronutrients, tenderise and marinate, evaluating and raising agents.				
Super curricular enrichment and scholarly extension	<ul style="list-style-type: none"> • Read: Food preparation and nutrition book, food books and magazine • Watch: Master chef junior, James Oliver's videos and other food videos on YouTube • Listen: Food podcast - Radio Cherry Bombe, Home Cooking, The Splendid Table and Every Day is a Food Day • Visit: Local and international restaurants. In store bakery and fish mongers 				
Useful websites	https://www.foodafactoflife.org.uk/14-16-years/healthy-eating/energy-and-nutrients/ https://www.food.gov.uk/business-guidance/food-hygiene-for-your-business https://www.food.gov.uk/safety-hygiene/cooking-your-food https://www.bbc.co.uk/bitesize/topics/znth9q				
Who can I contact?	Head of Food Preparation and Nutrition	Dr Babatunde Ojewunmi, bto@forest.org.uk			
	Food teachers	AW@forest.or.uk, EP@forest.org.uk, JEH@forest.org.uk, and SR@forest.org.uk			

