DESIGN & TECHNOLOGY SPIRAL CURRICULUM MAPPING

KS3&4 FOOD PREPARATION AND NUTRITION

Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world.

		Year 7	Year 8	Year 9	KS4 Food Preparation and Nutrition	
FOOD SAFETY		Know how to keep safe in the food room including personal hygiene Use of basic kitchen equipment and cooker safely Know how to washing up safely Have an overview of food safety including pathogenic bacteria and cross contamination. Recall the 4C's of Food Safety. **Literacy: Use of key terms** **Science Link**	Review safety in the food room and personal hygiene Kitchen hygiene Food hygiene Understand Binary Fission and know how to manipulate and treat an environment and food to reduce spoilage. **Science & Numeracy: Binary Fission and Multiplication** Identify foods associated with specific bacteria and methods of reduction, including methods of reducing the risk of cross contamination. **Science Link** **Literacy: Use of key terms**	Review safety in the food room and personal hygiene Identify high risk foods and understand methods to ensure safety. Understand the key temperatures for food storage. Understand the requirements of bacteria to survive and are able to manipulate foods and atmosphere to reduce the risk of contamination. Understanding of risks of food poisoning bacteria, symptoms and onset times. **Science Link** **Literacy: Use of key terms**	**Food safety**	Food spoilage and contamination: Microorganisms and enzymes Signs of food spoilage Microorganisms in food production Bacterial contamination Principles of food safety: Buying and storing food Preparing, cooking and serving food
CORE KNOWLEDGE	Diet and good health	Understand the Eat-well guide and its role. Have an understanding of a healthy diet including Macro and Micronutrients, 5-a-day and fluid intake. **Literacy: Use of key terms** **Science Link**	Use the Eat-well guide as a reference to create a healthy balanced diet to cater for religious and cultural needs (**food choice)** Have an awareness of food labels and the traffic light system **Literacy: Use of key terms and abbreviations** (**food choice**) Understand food labels and the traffic light system. **(Food choice)** **Literacy: Use of key terms** **Science Link**	Understand the importance of a healthy diet Create menus to cater for medical and ethical/moral needs using the eat-well guide as reference **(food choice**) Understand BMI, EAR, PAL and BMR. **Literacy: Use of key terms and abbreviations** **Science Link**	**Food, nutrition and health**	The functions, main sources, effects of deficiency and excess and related dietary reference values of the macro and micro nutrients The importance of hydration in the diet Making informed choices for a varied diet Energy needs Nutritional analysis How diet affects health
	Principles of Nutrition	**Macronutrients and Micronutrients** Identify different types of nutrient State their main sources and function Be aware of the different types of macro- nutrients HBV and LBV protein Sugary and starchy carbohydrates Saturated and unsaturated fat **Science Link** **Literacy: Use of key terms**	**Macronutrients and Micronutrients** **State the functions and sources of macro and micro nutrients** **State the deficiency and excess of nutrients intake** Adapt a recipe to improve the nutritive value. **Science Link** **Literacy: Use of key terms**	**Macronutrients and Micronutrients** Nutritional need for different life stages Understand and manipulate recipes for different life stages **Science Link** **Literacy: Use of key terms**		
	Food Science	Understand why food is cooked and state the 3 main types of cooking methods Know what is Enzymatic Browning and how to avoid it **Science Link** **Literacy: Use of key terms**	Understand caramelisation and the Maillard reaction Discuss raising agents and determine which are used within a recipe, Physical, Chemical or Biological. **Science Link** **Literacy: Use of key terms**	Understand the denaturation of proteins and be able to define the terms coagulation and emulsification. Understand the role of gluten and how it can be used within a recipe. Understand gelatinisation **Science Link** **Literacy: Use of key terms**	**Food science**	Cooking of food and heat transfer Selecting appropriate cooking methods Functional and chemical properties of food: Protein, fats and oil, carbohydrates. fruits and vegetables, raising agents
FOOD PROVENANCE		Have an overview of where ingredients come from **Geography Link** **Literacy: Use of key terms**	Understand how to avoid food waste. **Geography Link** **Literacy: Use of key terms**	Understand why seasonal food should be used and which food is available when **Geography Link** **Literacy: Use of key terms**	**Food provenance**	Environmental impact and sustainability of food: Food source Food and the environment Sustainability of food Food processing and food production: Food production Technological developments associated with better health and food production
TECHNOLOGY IN SOCIETY		Future food Have an awareness of the emerging technology - the development of alternative food production; making synthetic protein in the laboratory Exploring the feasibility of eating insects as an alternative protein source **Science Link** **Literacy: Use of key terms**	Molecular gastronomy Investigating Molecular Gastronomy, key terms and techniques used by chefs in industry to create new taste and textures **Science Link** **Literacy: Use of key terms**	Alternative food production method: Hydroponics- working with water **Science Link** **Geography Link** **Literacy: Use of key terms**		
CREATE AND EVALUATE	Mixtures and recipes	Use dry ,fry and moist methods of cooking **(food science)** know what is sensory evaluation and why it is carried out (**Food choice)** Use sensory descriptors to describe food **Science link** **Literacy: Use of key terms and adjectives** **Numeracy: Measuring, weighing, scaling up and down**	Effectively use dry, moist and frying methods Understand what is taste How to carry out sensory testing fairly – **(Food choice)** **Literacy: Use of key terms** **Numeracy: Measuring, weighing, scaling up and down** **Science link** **Literacy: Use of adjectives**	Identify the correct method of cooking for recipes and be able to effectively use both dry, moist and frying methods Aware of the different types of sensory test Create a profiling test of a made dish **Numeracy link : creating graphs** **ICT link –using excel** **Literacy: Use of key terms**	**Food choice**	Factors affecting food choice Food labelling and market influences British and international cuisine Sensory evaluation

	Technical skills	Understand the types of heat sources and where they apply (Convection, Conduction and Radiation) Use and understanding of the bridge and claw safe knife skills to prepare fresh fruits and vegetables. Demonstrate an ability to sauté vegetables, create a sauce from scratch and how to make dough and a simple batter. **Literacy: Use of key terms, sequencing of recipes, evaluating practical**	Use the appropriate cooking technique convection, conduction and radiation for recipes. Use of the knife techniques bridge and claw competently Demonstrate how to use starch to thicken soups and stocks, creating a roux, a variety of bread and pastry doughs for different uses. **Literacy: Use of key terms, sequencing of recipes, evaluating practical**	Demonstrate cooking techniques using convection, conduction and radiation for recipes. Demonstrate safe use of knife skills including the bridge and claw creating specific cuts for example: dicing, mincing and julienne cuts. Demonstrate how to make a variety of sauces, shape doughs and how to pair flavours using fresh and dried herbs and spices. **Literacy: Use of key terms, sequencing of recipes, evaluating practicals**	**Food preparation skills**	Twelve skill groups taught through practical activities: General practical skills Knife skills Preparing fruits and vegetables Use of cooker Use of equipment Cooking methods Prepare, combine and shape Sauce making Tenderise and marinade Dough (making and shaping) Raising agents Setting mixtures