YR8:MTP:T1:L1-7

Food Preparation and Nutrition - Medium-Term Plan- Term 1

Function of ingredients

Rotational Groups 1-3 Term Repeat with seasonal variation

Year Group 8	Subject: Food Preparation and Nutrition Function of ingredients
Prior learning- linked to National curriculum	"The Science of Cooking" scheme of work for Year 8 builds on their mastery of kitchen skills developed in Year 7 Term 1, as well as their understanding of practical cooking techniques and their roles in Year 7 Term 2. The scheme of work mostly builds on Year 7 Term 3, "The Science of Cooking," where students acquired and demonstrated skills in various cooking methods, prepared and cooked different dishes, investigated the effects of cooking on vegetables, and explained different cooking methods and their suitability for particular foods. By the end of Year 7, students emerged to describe the reasons for cooking food and are developing the ability to describe and apply different cooking methods, different types of heat transfer and suitable cooking methods. This scheme of work aligns with the KS3 Design and Technology national curriculum.
Common misconceptions	• All cooking methods are interchangeable and will work equally well for any type of food. • The way you cook a particular food item won't have any impact on its taste, texture, or appearance. • All eggs will behave the same way during cooking, regardless of the method used or how they are prepared. • Coagulation and denaturation are the same thing and can be used interchangeably. • Fish is not a valuable source of nutrition or protein in the diet.

	• The history and cultural significance of food are not important factors to consider in its preparation and enjoyment.
Rationale	The "Science of Cooking Food" topic is essential to the Year 8 curriculum. Students will learn the reasons why food is cooked and the scientific principles involved in food preparation and cooking. They will explore the various cooking methods and their effects on food, helping them develop a deeper understanding of the suitability of these methods for different food items. Through practical experimentation, students will cook potatoes in various ways and demonstrate the science involved in cooking eggs, including the effects of denaturation and coagulation. They will also learn about coagulation and gelatinization through the heat of proteins and starches which will be built on towards the end of Year 8 and again in Year 9. Additionally, students will understand the nutritional value of fish in the diet and the differences between coagulation and denaturation. This knowledge is required to understand multiple topics in Year 10. The topic emphasises the importance of food preparation and nutrition and helps students gain a deeper understanding of the science behind cooking.
Vocabulary:	**Keywords: 10** Heat Transfer, Nutritional Value, Ingredient, Cooking Methods, Coagulation, Denaturation, Viscosity,
Cultural Capital:	There are several external and visiting opportunities for students to expand their knowledge of food and explore career possibilities. These include a visit from a fish monger to learn about fish preparation and cooking, as well as a trip to a supermarket to gain a deeper understanding of the wider complexities of sauce making and the variety of options available. Students can also learn about careers in the food industry, with the possibility of hearing from successful entrepreneurs such as Levi Roots.
Key assessments- name the assessments	Assessment 1 - FPN: Baseline Assessment: Google Forms Assessment 2 - FPN: Science of Cooking Food: Functions of Ingredients

What do children know/ can do now (EDSM)	• Understanding of different cooking methods and their effects on food • Increased knowledge of cooking methods and their suitability for different food items • Practical skills in cooking potatoes in various ways • Demonstration of scientific principles behind cooking eggs and effects of denaturation and coagulation • Practical skills in cooking eggs in five different ways • Understanding of coagulation and gelatinization through the heat of proteins and starches • Practical skills in making fish pie with all-in-one white sauce • Knowledge of nutritional value of fish in the diet and differentiation between coagulation and denaturation • Completion of an assessment and demonstration of food evaluation • Knowledge of history of mince pies • Practical skills in experimenting with decorative finishes for mince pies • **Emerging**- To name different cooking methods and how sauces are made • **Developing** - To describe how proteins are affected by heat • **Secure** - To be able to explain the how proteins are denatured and the gelatinisation of starches • **Mastered** To explain the different protein denaturation process for protein foods. Explain how the effects of heat change starch molecules in the production of a sauce
What **amendments** are you going to make following evaluation of this module?	This scheme of work will be adapted based on how confident students are from the previous topic of Term 2 in Year 7 that introduces many of these skills.

Term	Lesson objective	Differentiation	Homework

1			
1	LO: To demonstrate your current knowledge of culinary terms and equipment Food Practical: N/A	Retrieval: Why do we need to learn about food? Assessment 1 - FPN: Baseline Assessment: Google Forms SEND: Identify the key utensils and their uses. Challenge:To explain culinary terms and to give examples. Questions: Hinge Questions: (photos) What are the names of these breads? What makes them different ?	
2	LO: To demonstrate the different function of ingredients when making soda bread & Flat bread Food Practical: Flat Bread & Soda Bread	Retrieval: What is the ingredient that makes Soda bread rise? SEND: Identify the ingredients used to make Soda bread and flatbread. Challenge: Explain the function of the ingredients used in the making of Soda and flatbread. Questions: Hinge Questions: Name four types of	Flat Bread KCA

		flours that can be used to make bread.	
3	LO: To learn about different grains and their function and nutritional values Food Tasting: Different cereal breads	Retrieval: Give an example of a Leavened and unleavened bread SEND: Name some different kinds of grains used to make flour. Challenge:Recall how many parts of the wheat grain there are and give an example of the nutrients that are found there. Questions: Hinge Questions: What are the key ingredients used to make bread?	
4	LO: To demonstrate the stages of bread making and enhancing the appearance with different glazes. Food Practical: Yeast bread rolls with different glazes	Retrieval: What are the most popular cereals grown in the UK? SEND: Make a simple bread roll with a decorative finish and explain how it is made. Challenge: Explain the process of each stage of making a bread product and the reasons behind each stage (the 'science' behind these processes) Questions: Hinge Questions: What does the term 'primary processing' mean?	

		Explain what the term secondary processing means?	
5	LO: Investigate and compare the different methods of large scale bread making. *Primary and Secondary processing* Food Practical: N/A Theory	Retrieval: Why is wholemeal flour better for you than regular white flour? SEND: *Name of a product made from flour.* Challenge: *Explain the process of secondary processing regarding the production of flour.* Questions: Hinge Questions: Yeast is not the only ingredient that can make bread rise, what are some other examples?	
6	LO:To develop and demonstrate the principles of food hygiene and safety, focusing on handling a dough, shaping, forming and baking a bread product. . Food Practical: Pizza Bread dough	Retrieval: Why does bread rise? SEND: *Name the process of how bread rises* Challenge: To independently make, shape and bake a bread product and explain the scientific principles of a leavening agent. Questions: Hinge Questions: What are the conditions that yeast needs in order to activate the	

		release of carbon dioxide?	
7	LO:To demonstrate your knowledge and understanding of the topic of the function of bread making ingredients	Retrieval: Give an example of an ingredient added to bread that makes it rise? How does this occur? Assessment 2 - FPN: Science of Cooking Food: Functions of Ingredients Challenge: To independently make, shape and bake a bread product and explain the scientific principles of a leavening agent. Questions: Hinge Questions: What are the scientific principles of making bread	