Consolidate:

Sandbach School Design and Technology Curriculum:

Year 10 GCSE Food and Nutrition Curriculum Sequence

Intent: To introduce key GCSE information & more challenging content. Pupils develop a deeper understanding of a range of ingredients, their application, provenance and their nutritional benefits. Through developing practical experiences and processes in Specialist Rooms, pupils learn to select ingredients and produce a range of products as well as considering and adapting recipes to suit special dietary requirements and evaluating their suitability for the target customer.

HT1	HT2	HT3	HT4	HT5	HT6
Health and Safety Recap Food Spoilage, Micro-organisms. Heat Transfer, Preservation, Sustainability and Food Provenance	**Healthy Diets and Nutrition (High Fibre), Micro-nutrients (Vitamins) and Macro-nutrients i.e. LBV proteins and recipe complementation / adaptation. Plus Energy Requirements**	**Diets for different Stages of Life. Religious & Ethical diets. Plus an introduction to Specific dietary needs.**	**Specific Diets Continued including low salt, fat and sugar. Plus deficiencies linked to Anaemia and the need for increased fibre etc.**	**Science of Food, Sauce Making (roux and emulsion sauces) making. Working characteristics of Fats and Oils Plus NEA 1 Sampling methods.**	**'Functional' Properties of Ingredients (NEA 1 Considerations), Food Miles and Food Security**
Why These modules? Health and safety is paramount in food production and although it is taught throughout the course, students need a deep understanding of food spoilage, bacterial growth and cross contamination in order to effectively manage it and perform tasks such as risk assessments. Moving onto other factors including the sustainability of food. How the heat is transferred to effectively cook the food and which foods are suitable for each technique. This also requires an understanding of how certain foods (nutrients) react when heated. Sustainability and environmental impact of food production are key threads of the scheme and allow students to consider issues with food packaging and other ethical factors.	**Why These modules?** Looking at the recommended healthy eating guidelines allows students to justify the menu/dish choices made and how the nutrition within dishes can be maximised yet stay healthy. These topics allow students to recap and then extend their knowledge of micro and macro nutrients accordingly. Energy requirements, healthy eating guidance and religious diets are topics covered in the examination assessment.	**Why These modules?** To further investigate special diets to include religious diets, ethical beliefs, vegetarianism, veganism, pregnancy, obesity and Coeliacs. **Students** being able to decide and select the most appropriate ingredients to use for special diets. These are topics that are widely tested in the end examinations and coursework. Therefore, an in-depth knowledge is required. It also allows students to consider requirements at Stages of Life. Having looked at a range of diets that would need adaptations to make food products suitable, students must be able to apply their knowledge to any given menu or dietary requirement *e.g. the complementation and adaptation of recipes to suit HBV/LBV diets, religious requirements and ethical considerations.* Students need to be able to calculate energy requirements for different groups.	**Why These modules?** Continuing to focus on specific diets ensures that all common dietary requirements are covered in line with the specification requirements. These topics are randomly tested in the final written examination and require detailed responses to access the higher bandings.	**Why These modules?** Science of food covers the range of scientific principles in the specification at a more relevant time than at the start of the course. This knowledge is needed at the start of Year 11 coursework. It provides a good opportunity to complete mini coursework assessment tasks in preparation for the coursework in Year 11. The making of roux and emulsion sauces allows students to consider dishes with higher order skills and how these more complex skills tie in with higher assessment grades. The science of food ties in with the assessment of NEA 1 food experiment at the start of Year 11. Understanding the science behind common cookery techniques and processes allows students to explain fully the changes that take place during cooking, including the benefits and draw backs e.g. Maillard reaction, dextrinisation etc.	**Why These modules?.** A key aspect of coursework assessment is for students to be able to explain the functional properties of a wide range of ingredients. It allows students to consider unfamiliar terms such as 'bulking out' and 'aeration' as a reason for selecting certain ingredients. Food Miles and Food Security are key concepts that regularly feature in end point examinations in the form of longer answer questions. These topics are delivered at this stage as they require more mature reflection and appreciation of current affairs and how the world around us affects the supply and demand of food in the U.K.
Eduqas Specification Links Pupils will: Learn content in line with specification requirement 4 Where food comes from and 6 – Cooking and Food Preparation.	**Eduqas Specification Links Pupils will: Learn content in line with specification requirement 2 – Principles of Nutrition, 3 – Diet and Good Health, 4 – The Science of Food and 6 – Cooking and Food Preparation.**	**Eduqas Specification Links Pupils will: Learn content in line with specification requirement 2 – Principles of Nutrition, 3 – Diet and Good Health and 6 – Cooking and Food Preparation.**	**Eduqas Specification Links Pupils will: Learn content in line with specification requirement 4 – The Science of Food and 6 – Cooking and Food Preparation.**	**Eduqas Specification Links Pupils will: Learn content in line with specification requirement 4 – The Science of Food 6 – Cooking and Food Preparation.**	**Eduqas Specification Links Pupils will: Learn content in line with specification requirement 2 – Principles of Nutrition, 3 – Diet and Good Health and 5 – Where food comes from and 6 – Cooking and Food Preparation.**
HT1 Supports learning throughout the course and contains topics that are fundamental to successful, safe and hygienic cooker e.g. learning about the science of heat transfer, the affect and use of micro-organisms in food preparation and cookery.	**HT2 Supports: Students learning about adapting ingredients within healthy diets to either change the energy that certain foods will provide or change other nutrients such as increasing fibre or reducing fat, sugar or salt.**	**HT3 Supports: Students learning about a range of special diets to include religious diets, ethical beliefs, vegetarianism, veganism. This will help with answering longer answer/ open questions in the written exam.**	**HT4 Supports: Learning about obesity and Coeliacs. Also including diets relating to health conditions, intolerances and allergies (diabetes, Coronary Heart Disease, Anaemia, Lactose Intolerance, a range of allergies).**	**HT5 Supports: Trial runs of coursework food testing in preparation for Year 11 coursework tasks. Including the working characteristics of fats. Learning about specific science terms allows students to apply these to their coursework annotations in Year 11 i.e. the NEA 1 Food Experiment**	**HT6 supports: Students learning about wider issues related to the food industry as a whole. It also supports learning about ethical and environmental impact of food production.**
Feeds from: Yr 9 Depth Curriculum when students have started to look at the science of foods it is important to know how food spoils due to physical, chemical and biological factors. The starting to learn about more in-depth topics such as and provenance and sustainability.	**Feeds from: Yr 9 Curriculum taking a more in-depth look into the chemical properties and use of Micro and Macro nutrients in the diet. Students will use this knowledge to be able to apply the changes needed to food products and to make them suitable for a range of diets in the future.**	**Feeds from: an earlier understanding of commodities and how their properties can be linked to Religious diets. Students look at a range of other factors that affect certain diets which will need different considerations when producing meals.**	**Feeds from: HT1, 2 & 3 where students have been producing dishes for a range of diets. It also builds on the understanding of the Healthy Eating Guidelines covered in KS3 and HT1**	**Feeds from HT2: These topics teach them the science behind how the food is cooked and why certain nutrients react in different ways when cooked.**	**Feeds from: HT1, HT2 and HT3 and considers further ethical and environmental factors which affect food choice and production..**