KESTEVEN AND SLEAFORD HIGH SCHOOL

Food Science & Nutrition
Year 8 – Unit 1

Intent – Rationale

Students should have an understanding of Health and Safety in the Food room and building on from prior learning in year 7 students acquire more advanced knife skills, understanding of sauce making. Students will continue to plan and make composite dishes in line with the Eatwell guide.

Sequencing – what prior learning does this topic build upon?	Sequencing – what subsequent learning does this topic feed into?
Year 7 Food Safety / Health & Safety / previous rotations **Use of equipment** **Planning of time** **Food Miles**	• Year 9- research / independent work • Health & Safety / Food safety in all years and life skills • Health and Safety in Textiles and resistant Materials in rotations 2 & 3. • GCSE Food and Nutrition
What are the links with other subjects in the curriculum?	**What are the links to SMSC, British Values and Careers?**
• **Science – bacteria / raising agents** • **Maths – weighing / measuring / portioning** • **Art / Technology – design** • **Geography – different cuisines.**	• Differentiation (GB3) • Problem solving; independence; resilience; encouraging creativity; communication skills; confidence; organisation (GB4, SP, SO, C) • Assessment for learning (GB8) • Routine and structure (M)
What are the opportunities for developing literacy skills and developing learner confidence and enjoyment in reading?	**What are the opportunities for developing mathematical skills?**

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• Reading instructions / recipes • Research • Writing evaluations • Subject specific vocabulary FROM THE LIBRARY *Dictionary of Food;* Charles Sinclair-641.5 *Cooking a Meal;* R. Matthews-641 *The Basic Cookbook;* L.Pagett 641.55	• Weighing/ Measuring / costing • Ratio's in pastry/sauce making

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Intent – Concepts

What knowledge will students gain and what skills will they develop as a consequence of this topic?
Know **Students will gain knowledge about raising agents: Biological, Chemical & Mechanical** **They will understand how some ingredients work together scientifically; how & why some recipes may work or not following change & adaptation. They will develop practical skills in sauce making to demonstrate Gelatinisation, sponge making, creating products through the application of this knowledge skills.** **Apply** This knowledge and skills will be applied to the making of a pasta dish with sauce, bread products, sponge cakes, allowing students to adapt and change recipes to the needs of the end consumer e.g. Coeliac / Vegetarian

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Extend **Developing Evaluation skills to identify areas of improvement, the acceptance of feedback and the use of a wider range of descriptive words when planning for feedback and taste testing**		
What subject specific language will be used and developed in this topic?		**What opportunities are available for assessing the progress of students?**
• Gelatinisation • Kneading & Proving • Composite dishes • Biological, Chemical & Mechanical Raising Agents • Fermentation	• Risk • Safety • Hazards • Hygiene • Food Poisoning • Cross Contamination	Outcomes & Key work for assessment: Research; evaluating; finished product. Regular marking of class and home work Mid project review Final assessment of completed rotation.

Intent – Concepts

Lesson title	Learning challenge	Higher level challenge	Suggested activities and resources

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1. Safety in the Kitchen	Use of key words / identify key words / spelling / corrections	Application to the classroom environment	'V' is for vegetable workbook – complete the worksheets pg1,2, 3 Identify the fire blankets and fire extinguishers in the room
2. The Milling Process	Understand the stages of primary processing	Recall the process/ Make independent choice s of recipe	Cereal & Cereal Products – https://www.bbc.co.uk/bitesize/guides/zks8jty/revision/3 complete worksheet. Plan for practical of cereal based product. Time plan required
3. Cereal Products	Independent Practical / time constraints/ making	Portioning/ team work / presentation / peer review	Independent practical lesson – own choice of cereal based product. Recap evaluation skills/ peer assess products
4. 'Macro Nutrient 'Carbohydrate	Planning for CHO as main source of energy, link to Eatwell Guide. Identify types of CHO	Understanding the scientific make up of Carbohydrates.	**Carbohydrates**' Students to mind map / list their present understanding of this macronutrient / to research the reasons why we need these. (**Sugar / Starch / Dietary Fibre**)
5. Gluten	Team work to show the presence of gluten using equipment provided	Recording findings in structured manner – use of annotation / photos	To use the samples of flour & water to investigate the presence of **gluten** in different flours – use instructions issued & record findings
6. Importance of Gluten	Understanding the importance of gluten in bread making.	Being able to adapt and change a recipe to suit family/end user's needs.	Research the importance of fibre in the diet – key words **Digestive System / Constipation/ wholegrain**. Ss to plan for practical fibre -rich bread. T led discussion: Coeliac Disease – alternative flours & possible results.
7. Ideal conditions for Fermentation	Working in groups to set up and execute effective investigation using yeast. Show understanding of how fermentation takes place.	Writing a hypothesis and analysing results of investigation	T led – investigation into the ideal conditions for Fermentation using Yeast. Use of test tubes, racks, balloons, sugar, water, salt, vinegar. Ss set up investigation, take photos and time results.

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8. Bread Practical	Kneading of dough to help the production of gluten. Successfully produce a basic bread that has risen well and held its structure.	Be able to shape and portion the dough into rolls or twists.	Practical Investigation into ideal conditions for fermentation to occur. Practical –bread products. Quick recipe so fast action of yeast. (Warm room) Key Terms: **kneading / rising/ proving/ shaping**. T led explanation of **Fermentation** – used raising agent
9. Composite Dish	Applying prior learning Use of key terms, selection of ingredients to demonstrate 'composite' dish	Producing dish to demonstrate a balance of nutrients, portioning, time constraints. Removal of proving time.	Practical – Pizza Recipe sheet & time plan Using knowledge from prior lesson to adapt to produce a pizza of own choice. Focus on 'composite' dish/ presentation / timing
10. Chemical, mechanical, biological raising agents	Identify different categories of raising agents – biological – link to prior learning, chemical, mechanical.	Identify the reactions of the chemical raising agents with ingredients / select based on suitability for the dish.	Using 'V' is for vegetable booklet/ computers/ textbooks Ss to produce a table to explain the 3 categories / include examples. Plan for practical using mechanical & chemical raising agent – small cakes.
11. Chemical and Mechanical Raising agents in use	Ss using electricals whisks to incorporate air to produce a light & airy sponge. Understanding how to incorporate air.	Explaining the stages, functions of ingredients and how they react to maintain the structure in raw & cooked state.	Ss- practical making small cakes to demonstrate the use of chemical and mechanical raising agent. Presenting for peer review. T led discussion as to texture – successes & failures.