

### 3. Year 10 Curriculum Plan

**YEAR 10**

**HALF TERM 3**

**SUBJECT Food Preparation and Nutrition**

**LEARNING**



| TOPIC: <b>Theory</b>                | LEARNING OBJECTIVES   | KEY VOCABULARY        | LEARNING SEQUENCE  | LINKED LEARNING                                      | HOME LEARNING                        |
|-------------------------------------|---|-----------------------|--|--|--------------------------------------|
| <b>The Science of Food</b>          |   |                       |  | <b>This topic is linked to your learning in KS3.</b> | <b>See Firefly for weekly tasks.</b> |
| <b>Why Food is Cooked</b>           | <b>Understand the reasons we cook food, with examples.</b>  | <b>Baking</b>         | <b>To list the reason, with examples of why we cook food.</b>                            |  | <b>End of Topic Test.</b>            |
| <b>Heat Transfer</b>                | <b>Understand Conduction, Convection and Radiation.</b>   | <b>Grilling</b>       | <b>Explain, in terms of particles: Conduction, Convection and Radiation.</b>             |  | <b>GCSE Pod Learning Resources.</b>  |
| <b>Cooking Methods- Water Based</b> | <b>Describe, with examples: Boiling, Steaming, Blanching, Simmering, and Poaching.</b>                                      | <b>Roasting</b>       | <b>Demonstrate water based cooking methods.</b>  |  |                                      |
| <b>Cooking Methods-Fat Based</b>    | <b>Describe with examples, Roasting and Frying.</b>   | <b>Conduction,</b>    | <b>Demonstrate fat based cooking methods.</b>  |  |                                      |
| <b>Changing Properties- PROTEIN</b> | <b>Understanding the chemical and scientific reactions which lead to protein denaturation.</b>                              | <b>Convection</b>     | <b>Conduct a science experiment to show how protein denatures.</b>                       |  |                                      |
| <b>CARBOHYDRATE</b>                 | <b>Understanding the chemical and scientific reactions which lead to Gelatinisation, Dextrinisation and Caramelisation.</b> | <b>Radiation</b>      | <b>Demonstrate how Gelatinisation, Dextrinisation and Caramelisation works in class.</b> |  |                                      |
|                                     |   | <b>Denaturation</b>   |  |  |                                      |
|                                     |   | <b>Coagulation</b>    |  |  |                                      |
|                                     |   | <b>Gelatinisation</b> |  |  |                                      |
|                                     |   | <b>Dextrinisation</b> |  |  |                                      |
|                                     |   | <b>Caramelisation</b> |  |  |                                      |
|                                     |   | <b>Aeration</b>       |  |  |                                      |
|                                     |   | <b>Shortening</b>     |  |  |                                      |
|                                     |   | <b>Plasticity</b>     |  |  |                                      |
|                                     |   | <b>Emulsification</b> |  |  |                                      |

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| <p><b>FAT and OIL</b></p>           | <p>Understanding the chemical and scientific reactions which lead to Aeration, Shortening, Plasticity and Emulsification.</p>   | <p><b>Chemical</b></p>  | <p>Demonstrate how Aeration, Shortening, Plasticity and Emulsification works in class.</p>  |                               |                             |
| <p><b>Raising Agents</b></p>        | <p>Understand the different types of Raising Agents and how they work in Food Science. Know the difference between Chemical, Biological, Mechanical and Steam Raising Agents.</p> | <p><b>Biological</b></p> <p><b>Mechanical</b></p> <p><b>Microorganisms</b></p>            | <p>Recall the difference between Chemical, Biological, Mechanical and Steam Raising Agents when making food in practical lessons.</p> |                               |                             |
| <p><b>Use of Microorganisms</b></p> | <p>Know that Microorganisms are living things which are useful in food production. Explain how Yeasts, Mould and Bacteria are used in Food Science.</p>                           | <p><b>Bacteria</b></p> <p><b>Mould</b></p> <p><b>Yeast</b></p> <p><b>Fermentation</b></p> | <p>Explain, with examples how microorganisms are used in the production of food products.</p>   |                               |                             |
| <p><b>Revision</b></p>              |   |   |   |                               |                             |
| <p><b>TOPIC: Practical</b></p>      | <p><b>LEARNING OBJECTIVES</b></p>   | <p><b>KEY VOCABULARY</b></p>  | <p><b>LEARNING SEQUENCE</b></p>   | <p><b>LINKED LEARNING</b></p> | <p><b>HOME LEARNING</b></p> |

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| <p><b>Cauliflower and broccoli cheese</b></p> | <p>Knife skills – preparing florets<br/>Steaming vegetables – not overcooking</p> <p>Cheese sauce:<br/>Making a roux<br/>Thickening without lumps – sauce should be smooth and velvety<br/>Ensure cheese is melted and not stringy</p> <p>Well assembled – florets are evenly coated in cheese sauce<br/>Florets have kept their colour and still have a little bite (i.e. not soggy)<br/>Breadcrumb and cheese mix is prepared from scratch, and finished product is well gratinated</p> | <p>Seasonal Availability</p> <p>Primary Processing</p> <p>Secondary Processing</p> <p>Seasoning</p> <p>Food Processor</p> <p>Blender</p> <p>Gluten</p> <p>Kneading</p> <p>Proving</p> <p>Caramelisation</p> <p>Gelatinisation</p> <p>Roux</p> | <p>Development of practical skills and techniques.</p> | <p>Skills are developed from KS3 practical work.</p> | <p>Weekly buying, weighing, measuring and packaging of ingredients and equipment. Being fully prepared and organised to take part in weekly practical work.</p> <p>Students will be required to complete a weekly evaluation sheet via Firefly.</p> |
| <p><b>Swiss Roll</b></p>                      | <p>Whisking method of cake making Even baking, well-risen and not burnt Rolled neatly, free from cracks<br/>Filled appropriately (more than solely jam)<br/>Well assembled with decorative finishes.<br/>Caramelisation/Aeration.</p>   | <p>Protein</p> <p>Dairy</p> <p>Denature</p> <p>Amino Acid</p>   |  |  |   |
| <p><b>Burgers/Meatballs</b></p>               | <p>Frying/Grilling: Dicing an onion<br/>Binding and forming equally sized meat patty shapes</p>   |   |  |  |   |

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| <p><b>Vegetable and halloumi kebabs with pesto dressing</b></p> | <p><b>Cooking evenly and thoroughly (minimum core temperature of 75oC achieved)</b></p> <p><b>Cutting vegetables into even sizes (to ensure even cooking)</b><br/><b>Dicing ready prepared halloumi into even sizes (to ensure even cooking)</b><br/><b>Skewering</b><br/><b>Use of mini food processor or pestle and mortar</b><br/><b>– achieving correct texture (to make pesto)</b></p> |  |  |  |  |
| <p><b>Hollandaise sauce</b></p>                                 | <p><b>Separating egg white and yolk</b><br/><b>Melting butter – not burning</b><br/><b>Make an emulsion with egg yolk and butter – free from splitting and scrambling</b></p>   |  |  |  |  |

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