



# Food Preparation and Nutrition

## Key Stage 4 Framework for Learning

### Year 11 2017-2018: I am Creative, Successful and Happy

**Syllabus:**

AQA GCSE Food Preparation and Nutrition

## Autumn 1

<p><b>Knowledge</b></p>	<p>Students will know: The scientific principles underlying the following processes when preparing and cooking food.</p> <ul style="list-style-type: none"> <li>• Protein denaturation</li> <li>• Protein coagulation</li> <li>• Gluten formation</li> <li>• Foam formation</li> <li>• Gelatinization</li> <li>• Dextrinization</li> <li>• Caramelization</li> <li>• Shortening</li> <li>• Aeration</li> <li>• Plasticity</li> <li>• Emulsification</li> <li>• Enzymic browning</li> <li>• Oxidation</li> <li>• Chemical raising agents and how they work.</li> <li>• Mechanical raising agents (whisking, beating, folding, sieving, creaming and rubbing in)</li> </ul> <p>The working characteristics, functional and chemical properties of proteins, carbohydrates, fats and oils, raising agents.</p>
<p><b>Skills</b></p>	<p>SKILLS</p> <ul style="list-style-type: none"> <li>• Analysing a task</li> <li>• Conducting secondary research into chosen task area, linking to prior knowledge</li> <li>• Consolidating relevant research.</li> <li>• Analysing research and plan relevant investigations</li> <li>• Devising a hypothesis.</li> <li>• Conducting relevant investigations that show understanding of how ingredients work and why.</li> <li>• Appropriate recording of results.</li> <li>• Analyse and interpret the results of investigative work.</li> <li>• Evaluate the hypothesis</li> <li>• Explain how the results can be applied in practical food preparation and cooking</li> </ul>
<p><b>Assessment</b></p>	<p><b>Marking Point 1:</b> Food Investigation Assessment: Research Section (6 marks)</p> <p><b>Marking Point 2:</b> Food Investigation Assessment Investigation Section (15 marks)</p> <p><b>Marking Point 3:</b> Food Investigation Assessment: Analysis and Evaluation section (8 marks)</p>
<p><b>Cultural enrichment</b></p>	<p><b>Rewards</b> Classroom rewards and opportunities will follow CHS reward criteria for routine points, star of the lesson etc. Individual rewards could be used as incentives to engage and enthuse students further in lessons.</p> <p><b>Enrichment</b> Links to industry, particularly food science, to support students learning and develop enrichment opportunities.</p>
<p><b>Character</b></p>	



### Q of S Optimism

There will be a particular focus on the following Q of S this half term:

**Curiosity:** Students will express curiosity through the exploration of ingredients and their function in food. Focusing on the scientific principles.

**Practice:** Students will use skills they learnt in year 10 and apply them to their NEA.

**Reflection:** Students will be expected to reflect on their investigations and consolidate their findings.

Other Q of S students will use are:

**Responsibility:** Students will be responsible for carrying out independent research as well as creating a suitable hypothesis.

**Empathy:** Students will work together to complete investigations.

**Self-Responsibility-** Responsibility for own learning and completing homework task on time

**Social-Responsibility-** students will have the opportunity to work with others taking on various roles such as leader.

## Autumn 2

### Knowledge

CEE BEGINNING OF AUTUMN 2

Students will know:

- Current guidelines for a healthy diet.
- Portion size and costing when planning a meal.
- How peoples' nutritional needs change and how to plan a balanced diet for different life stages (young children, teenagers, adults and the elderly)
- How to plan a balanced meal for specific dietary groups: vegetarian and vegan, coeliac, lactose intolerant and high fibre diets.
- How to use current nutritional information and data to calculate energy and nutritional value.
- Food products from British Tradition and two different cuisines. This includes distinctive features and characteristics of cooking. Equipment and cooking methods used, eating patterns, presentation styles and traditional and modern variations of recipes.

### Skills

#### SKILLS:

- Analysing a task
- Conducting relevant research into chosen task area, linking to prior knowledge
- Consolidating research.
- Analysing research and plan relevant dishes.

**Skills will vary depending on students chosen task, technical skills they will showcase and target grade**

**Skill 1:** General practical skills (weigh and measure, prepare ingredients and equipment, cooking times, test for readiness, judge and modify sensory properties)

**Skill 2:** Knife Skills (fruit and vegetables and meat fish or alternatives)

**Skill 3:** Preparing fruit and vegetables

**Skill 4:** Use of the cooker (grill and oven)

**Skill 5:** Use of equipment including electrical.

**Skill 6:** Cooking methods: Water based using the hob and dry heat and fat based methods using the hob

**Skill 7:** Prepare, combine and shape

**Skill 8:** Sauce making including starch bases, emulsion and reduction.

**Skill 9:** Tenderise and marinate

**Skill 10:** Dough including making a variety of doughs (bread, pastry and pasta) and shaping and finishing.

**Skill 11:** Raising agents: eggs as a raising agent; chemical raising agents; steam as a raising agent and biological raising agents.

**Skill 12:** Setting mixtures including removal of heat and use of protein.

### Assessment

#### Marking Point 1:

College Entry Examination

#### Marking Point 2:

Food Preparation Assessment: Researching the task (6 marks)

#### Marking Point 3:

Food Preparation Assessment: Demonstrating Technical skills (18 marks)

### Cultural enrichment

#### Rewards

Classroom rewards and opportunities will follow CHS reward criteria for routine points, star of the lesson etc. Individual rewards could be used as incentives to engage and enthuse students further in lessons.

#### Enrichment



	<p>Through their NEA students will explore different cultures and cuisines. This will be through secondary and primary research. Here students will have the opportunity to speak to professionals from the catering industry.</p>
<p><b>Character</b></p>	<div></div> <p>Q of S Empathy There will be a particular focus on the following Q of S this half term:</p> <p>Responsibility: Students will be responsible for researching the task and coming up with ideas that showcase skills. Reflection: Students will reflect on their research to help them collect ideas that they can then cook. Practice: Students will practice a number of high and medium skills in the kitchen to prepare them for their practical exam.</p> <p>Other Q of S students will use are:</p> <p>Resiliency: Students will need to show resiliency during the NEA particularly when completing new and complex skills that will be tasking. Motivation: Students will have the opportunity to use exemplar work and feedback to motivate them. Unpicking the mark scheme will allow them to see where they will pick up marks and how to. Self-Responsibility- Responsibility for own learning and completing homework task on time. Social-Responsibility- students will have the opportunity to work with others taking on various roles such as leader.</p>
<h2>Spring 1</h2>	
<p><b>Knowledge</b></p>	<p>Students will know:</p> <ul style="list-style-type: none"> <li>• Sensory testing methods (preference tests, discrimination tests, grading tests)</li> <li>• Controlled conditions needed for sensory testing.</li> <li>• How to test sensory qualities of a wide range of foods and combinations.</li> </ul> <p>Exam preparation: Students will know:</p> <p><b>Food and the Environment</b> Environmental issues associated with food.</p> <ul style="list-style-type: none"> <li>• Seasonal foods</li> <li>• Sustainability e.g. fish farming</li> <li>• Transportation</li> <li>• Organic foods</li> <li>• The reasons for buying locally produced food.</li> <li>• Food waste in the home/food production/retailers.</li> <li>• Environment issues related to packaging</li> <li>• Carbon footprint.</li> </ul> <p><b>Sustainability of food</b> The impact of food and food security on local and global markets and communities. Students will know: The challenges to provide the worlds growing population with a sustainable, secure supply of safe, nutritious and affordable high- quality food Students will have an awareness of:</p> <ul style="list-style-type: none"> <li>• Climate change</li> <li>• Global warming</li> <li>• Sustainability of food sources</li> <li>• Insufficient land for growing food</li> <li>• Availability of food</li> <li>• Fairtrade</li> <li>• Problems of drought and flooding</li> <li>• GM foods</li> <li>• Food waste.</li> </ul>
	<p><b>SKILLS:</b></p> <ul style="list-style-type: none"> <li>• Appropriate sensory recording of practical dishes results.</li> <li>• Justify the appropriateness of the final dishes.</li> <li>• Produce a detailed time plan that includes well thought through dovetailing and accurate timings.</li> <li>• Costing, nutritional analysis and detailed, relevant and creative improvements.</li> </ul> <p><b>Skills will vary depending on students chosen task, final dishes chosen and target grade.</b></p>



	<p><b>Skill 1:</b> General practical skills (weigh and measure, prepare ingredients and equipment, cooking times, test for readiness, judge and modify sensory properties)</p> <p><b>Skill 2:</b> Knife Skills (fruit and vegetables and meat fish or alternatives)</p> <p><b>Skill 3:</b> Preparing fruit and vegetables of the cooker including grill and oven.</p> <p><b>Skill 4:</b> Use of the cooker (grill and oven)</p> <p><b>Skill 5:</b> Use of equipment including electrical</p> <p><b>Skill 6:</b> Cooking methods: Water based using the hob and dry heat and fat based methods using the hob</p> <p><b>Skill 7:</b> Prepare, combine and shape</p> <p><b>Skill 8:</b> Sauce making including starch bases, emulsion and reduction.</p> <p><b>Skill 9:</b> Tenderise and marinate</p> <p><b>Skill 10:</b> Dough including making a variety of doughs (bread, pastry and pasta) and shaping and finishing.</p> <p><b>Skill 11:</b> Raising agents: eggs as a raising agent; chemical raising agents; steam as a raising agent and biological raising agents.</p> <p><b>Skill 12:</b> Setting mixtures including removal of heat and use of protein.</p>
<p><b>Assessment</b></p>	<p><b>Marking Point 1:</b> Food Preparation Assessment: Planning for the final menu (8 marks)</p> <p><b>Marking Point 2:</b> Food Preparation Assessment: Making the final dishes (30 marks) (PRACTICAL EXAM)</p> <p><b>Marking Point 3:</b> Food Preparation Assessment: Analysis and Evaluation (8 marks)</p>
<p><b>Cultural enrichment</b></p>	<p><b>Rewards</b> Classroom rewards and opportunities will follow CHS reward criteria for routine points, star of the lesson etc. Individual rewards could be used as incentives to engage and enthuse students further in lessons.</p> <p><b>Enrichment</b> Students will cook a range of dishes that utilize a range of skills and equipment from different cultures and cuisines. Students will also consider the suitability of dishes for different groups of people.</p>
<p><b>Character</b></p>	<div style="display: flex; justify-content: center; gap: 20px;">   </div> <p>Q of S Empathy Creativity and curiosity There will be a particular focus on the following Q of S this half term:</p> <p><b>Creativity:</b> Students will show creativity through their choice of dishes selected for their final menu. <b>Practice:</b> Students will practice the skills they learnt from autumn 2 and previous practical lessons. They will also practice the analytical skills they learnt during their first NEA. <b>Resiliency:</b> Students will have to show resiliency throughout the practical tasks and exam. Here they will have to independently cook 3 dishes in 3 hours. They will need to show resiliency to overcome problems.</p> <p>Other Q of S students will use are: <b>Curiosity:</b> Students will also have the opportunity to showcase curiosity through the exploration of different recipes and methods. <b>Openness-sharing ideas, thoughts and opinions on factors affecting food choice.</b> (this will be embedded in class discussion and debates on topics around food sustainability issues <b>Self- Help-</b> Seek help independently using resources available. <b>Caring for others-</b> Sharing thoughts and dishes with one another during taste testing.</p>
<h2>Spring 2</h2>	
<p><b>Knowledge</b></p>	<p>Exam Preparation Students will know:</p> <ul style="list-style-type: none"> <li>• Food processing and production and Food provenance: Identify whether an ingredient has been grown, reared or caught.</li> <li>• Food production: primary processing related to the rearing, fishing, growing, harvesting and cleaning of the raw food material and secondary stages of processing related to how the raw primary processed ingredients are processed to produce a food product.</li> <li>• Secondary processing related to: how the raw primary processed ingredients are processed to produce a food product (flour into bread and/or pasta, milk into cheese and yoghurt, fruit into jams)</li> <li>• Loss of vitamins through heating and drying</li> <li>• The effect of heating and drying on the sensory characteristics of milk</li> </ul>



	<p>Technological developments associated with better health and food production. Students must know and understand:</p> <ul style="list-style-type: none"> <li>• Cholesterol lowering spreads</li> <li>• Health benefits of fortification</li> <li>• Fortified foods: thiamine, niacin, calcium and iron added to white flour</li> <li>• Folic acid and iron added to breakfast cereals</li> <li>• Vitamins A and D added to fats and low fat spreads</li> <li>• The positive and negative aspects of the use of additives: colourings, emulsifiers and stabilisers flavourings and preservatives</li> <li>• The positive and negative aspects of GM foods</li> </ul>
<b>Skills</b>	<p><b>Skill 1:</b> General practical skills (weigh and measure, prepare ingredients and equipment, cooking times, test for readiness, judge and modify sensory properties) <b>Skill 2:</b> Knife Skills (fruit and vegetables and meat fish or alternatives) <b>Skill 3:</b> Preparing fruit and vegetables of the cooker including grill and oven. <b>Skill 6:</b> Cooking methods: Water based using the hob and dry heat and fat based methods using the hob <b>Skill 7:</b> Prepare, combine and shape <b>Skill 10:</b> Dough including making a variety of doughs (bread, pastry and pasta) and shaping and finishing.</p> <p>The exam paper will allow students to complete a variety of questions which are designed to test students' knowledge and information acquired through the course. This will be in the format of 20 multiple choice questions and 80 marks available from longer answer questions. Questions will be based on the main context above and will require students to apply subject specific information to answer questions. Students will be expected to show written communication skills, analytical skills and mathematical skills in this section of the exam paper.</p> <p>Throughout the course of revision lessons students will revisit key topics covered throughout the course and familiarize themselves with the knowledge required to complete examination questions.</p> <p>Practice exam questions, past papers and mark schemes will be used to allow students to demonstrate their understanding and awareness of the subject in an examined context.</p> <p>Students in the examination are expected to demonstrate skills in:</p> <ul style="list-style-type: none"> <li>• Preparing for an exam with a given context.</li> <li>• Complete examination answers which are designed to test students QWC skills (Quality of written communication)</li> <li>• Understanding of how to complete tables and charts which some minimal information given</li> <li>• Be able to understand the context of an exam question and how to complete tasks suitably</li> <li>• Understand how to critically analyse a chart, table or food product</li> </ul> <p>Support and information will be provided to help students fully explore Technology examinations in preparation for their summer exam.</p>
<b>Assessment</b>	<p><b>Rewards</b> Classroom rewards and opportunities will follow CHS reward criteria for routine points, star of the lesson etc. Individual rewards could be used as incentives to engage and enthuse students further in lessons.</p> <p><b>Enrichment</b> Students will watch documentaries on the topic area of food production both in class and as part of their home learning. Students will have the opportunity to explore where food comes from and how food is made. Here they can focus on the effects of globalization on food production, sustainability issues and ethical and moral issues surrounding GM foods.</p>
<b>Cultural enrichment</b>	<ul style="list-style-type: none"> <li>• The effect of Computational Thinking</li> <li>• Planning effective programs</li> <li>• Problem solving</li> </ul>
<b>Character</b>	<div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p>Q of S Responsibility &amp; Reflection There will be a particular focus on the following Q of S this half term</p> <p>Curiosity: Students will have the opportunity to experience curiosity to look at how food is made and processed.</p>



Practice: Students will practice exam technique through answering exam questions.

Other Q of S students will use are:

Empathy – self and peer assessment tasks and group discussion.

Openness-sharing ideas, thoughts and opinions on factors affecting food choice. (this will be embedded in class discussion and debates on topics around food sustainability issues).

Self- Help- Seek help independently using resources available.

Caring for others- Sharing thoughts and dishes with one another during taste testing.

## Summer 1

### Knowledge

GENERAL REVISION

TERMINAL EXAM

Topics as highlighted by students covered over course of lessons proceeding examination. The focus will be mainly topics that could appear in the final exam.

Predominately Section B

Food Nutrition and Health

- Macronutrients (fats, protein, carbohydrates)
- Micronutrients: Vitamins (fat soluble, water soluble, antioxidant functions). Minerals (calcium, iron, sodium, fluoride, iodine, phosphorus)
- Water

Nutritional needs and health

- Making informed choices for a varied and balanced diet
- Energy needs
- Nutritional analysis
- Diet, nutrition and health

Food Science

- Cooking of food and heat transfer
- Functional and chemical properties of food (proteins, carbohydrates, fats, fruit and vegetables, raising agents)

Food Safety

- Food spoilage and contamination
- Principles of food safety

Food Choice

- Factors affecting food choice
- Food choices
- Food labelling and marketing influences
- British and International cuisines
- Sensory evaluation

Food Provenance

- Environmental impact and sustainability of food.
- Food Processing and production

### Skills

**Skill 1:** General practical skills (weigh and measure, prepare ingredients and equipment, cooking times, test for readiness, judge and modify sensory properties)

**Skill 2:** Knife Skills (fruit and vegetables and meat fish or alternatives)

**Skill 3:** Preparing fruit and vegetables

of the cooker including grill and oven.

**Skill 6:** Cooking methods: Water based using the hob and dry heat and fat based methods using the hob

**Skill 7:** Prepare, combine and shape

**Skill 10:** Dough including making a variety of doughs (bread, pastry and pasta) and shaping and finishing.

The exam paper will allow students to complete a variety of questions which are designed to test students' knowledge and information acquired through the course. This will be in the format of 20 multiple choice questions and 80 marks available from longer answer questions.

Questions will be based on the main context above and will require students to apply subject specific information to answer questions.

Students will be expected to show written communication skills, analytical skills and mathematical skills in this section of the exam paper.

Throughout the course of revision lessons students will revisit key topics covered throughout the course and familiarize themselves with the knowledge required to complete examination questions.

Practice exam questions, past papers and mark schemes will be used to allow students to demonstrate their understanding and awareness of the subject in an examined context.



	<p>Students in the examination are expected to demonstrate skills in:</p> <ul style="list-style-type: none"> <li>• Preparing for an exam with a given context.</li> <li>• Complete examination answers which are designed to test students QWC skills (Quality of written communication)</li> <li>• Understanding of how to complete tables and charts which some minimal information given</li> <li>• Be able to understand the context of an exam question and how to complete tasks suitably</li> <li>• Understand how to critically analyse a chart, table or food product</li> </ul> <p>Support and information will be provided to help students fully explore Technology examinations in preparation for their summer exam.</p>
<b>Assessment</b>	<p><b>Marking Point 1:</b> <i>Exam Questions</i></p> <p><b>Marking Point 2:</b> <i>Case study</i></p> <p><b>Marking Point 3:</b> <i>Exam paper</i></p>
<b>Cultural enrichment</b>	<p><b>Rewards</b> Classroom rewards and opportunities will follow CHS reward criteria for routine points, star of the lesson etc. Individual rewards could be used as incentives to engage and enthuse students further in lessons.</p> <p><b>Enrichment</b> As part of their revision students may carry out further research into topic areas. Guest speakers or links to industry may be used to support students.</p>
<b>Character</b>	<div style="display: flex; justify-content: space-around; align-items: center;">   </div> <p>Q of S Practice &amp; Resiliency There will be a particular focus on the following Q of S this half term.</p> <p>Practice: Students will practice exam technique through answering exam questions. Resiliency: Students will show resiliency through overcoming problems they face with exam questions and practice papers. Striving to improve. Optimism: Students will get the opportunity to show optimism when it comes to preparing for their written exam and aiming for success.</p> <p>Other Q of S students will use are: Empathy – self and peer assessment tasks and group discussion. Solidarity- supporting one another with a task or when cooking. Working as a team. Equality- Working as a team each taking on an equal role (students will show this particularly in practical tasks and also during group work).</p>