



## Year 10 AQA Food preparation and nutrition

### Term 3

#### Year 10 term 3 Aims / Objective:

#### **3.4 Food safety**

##### 3.4.1 Food spoilage and contamination

###### 3.4.1.1 Microorganisms and enzymes

###### 3.4.1.2 The signs of food spoilage

###### 3.4.1.3 Microorganisms in food production

###### 3.4.1.4 Bacterial contamination

#### **3.4.2 Principles of food safety**

##### 3.4.2.1 Buying and storing food

##### 3.4.2.2 Preparing, cooking and serving food

#### **3.5 Food choice**

##### 3.5.1 Factors affecting food choice

###### 3.5.1.1 Factors which influence food choice

###### 3.5.1.2 Food choices

###### 3.5.1.3 Food labelling and marketing influences

##### 3.5.3 Sensory evaluation

#### **3.6 Food provenance**

##### 3.6.1.1 Food Sources

##### 3.6.1.2 Food and the environment

##### 3.6.1.3 Sustainability of food

#### **3.6.2 Food processing and production**

##### 3.6.2.1 Food production

##### 3.6.2.2 Technological developments associated with better health and food production

**Literacy skills:**

Reading recipes, charts and tables.

**Keywords:**

**Food Spoilage:** Microorganisms, bacteria, yeasts and mould, time, temperature, moisture, food, pH, high risk, cross contamination. enzymic action, mould growth, yeast action, enzymic action, mould growth, yeast action, campylobacter, e-coli salmonella, Listeria, staphylococcus aureus.

**temperature control:** freezing: -18°C, chilling: 0 to below 5°C, danger zone: 5 to 63°C,

cooking: 75°C reheating: 75°C, ambient storage

temperature danger zone, correct use of domestic fridges and freezers, date marks, 'best before' and 'use by' dates, covering foods.

**Food Choice:** The following factors in relation to food choice: physical activity level (PAL) celebration/occasion • cost of food • preferences • enjoyment • food availability • healthy eating • income • lifestyles • seasonality • time of day • time available to prepare/ cook.

**Food Provenance:****Resources:**

e book one line access by every student, laminated resources for vitamins,

**Numeracy skills:**

Working out weights and measures for ingredients. Doubling recipes and making them smaller.

**Use of ICT:** Nutritional analysis, costing on excel, completing NEA on word,

**Assessment(s):**

- Students will have an end of term written assessment taking up most of the double lesson. Second lesson that week is put aside to go through the assessment and the year 10 assessment paper.
- Students will prepare for a practical exam.

**Links with other curriculum areas:**

These issues underlie all design and manufacturing activities and will be specifically addressed in identifying needs, researching different areas, justifying choices and evaluating outcomes. All of these areas ensure that there is adequate scope for covering these aspects of the course.

## **Specification Coverage**

(AQA 8585)

<p><b>Week 1: Lesson 1: Theory Microorganisms What are they and how do they spoil food</b></p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• the growth conditions for microorganisms and enzymes</li> <li>• the control of food spoilage</li> <li>• bacteria, yeasts and moulds are microorganisms</li> <li>• yeast action on fruits e.g. grapes, strawberries and tomatoes.</li> <li>• the different sources of bacterial contamination</li> <li>• Mould growth on food</li> <li>• enzymes are biological catalysts usually made from protein.</li> <li>• enzymic action: ripening of bananas, browning of some fruits mould growth: e.g. on bread and cheese. Recognise the signs of mould growth on foods</li> </ul> <p><b>Key Word:</b></p> <p>Microorganisms, bacteria, yeasts and mould, enzymic action, mould growth, yeast action</p> <p><i>Could get agar plates from science and take swabs from items to show bacterial growth.</i></p> <p><b>Memory Technique for bacterial growth</b></p> <p><b>Tiny    Tempher    find    music    phew</b></p> <p><b>Time    temperature    food    moisture    pH</b></p>	<p>3.4.1 Food spoilage and contamination</p> <p>3.4.1.1 Microorganisms and enzymes</p>	<p><b>Differentiation:</b></p>	<p><b>Homework:</b></p>	<p><b>Resources:</b></p> <p>Booklet to print out.</p> <p><b>Examples of</b></p> <p>Fruit that has browned.</p> <p>Bread that is mouldy</p>
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<p><b>Lesson 2: Theory - Bacterial growth</b></p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• the main sources and methods of control of different food poisoning bacteria types, time, temperature, food, moisture and pH</li> <li>• the different sources of pathogenic bacterial contamination</li> <li>• the main types of pathogenic bacteria which cause food poisoning</li> <li>• the general symptoms of food poisoning.</li> <li>• the main sources and methods of control of different food poisoning bacteria types</li> </ul> <p><b>Key Words:</b></p> <p>time, temperature, moisture, food, pH, high risk, cross contamination. campylobacter, e-coli, salmonella, Listeria, staphylococcus aureus.</p>	<p>3.4.1.2 The signs of food spoilage</p> <p>3.4.1.4 Bacterial contamination</p>	<p><b>Differentiation</b></p>	<p><b>Homework:</b></p>	<p><b>Resources:</b></p> <p><b>FOOD:</b></p> <p>Chicken to show how to joint it.</p>
<p><b>Week 2: Lesson 2 Theory Food Production</b></p> <p><b>Objective:</b></p> <ul style="list-style-type: none"> <li>• the use of microorganisms in food production.</li> <li>• moulds in the production of blue cheese</li> <li>• yeasts to raise bread</li> <li>• bacteria in yoghurt and cheese production.</li> </ul>	<p>3.4.1.3 Microorganisms in food production</p>	<p><b>Differentiation</b></p>	<p><b>Homework:</b></p> <p>Bring ingredients to make a curry using the chicken in the freezer</p>	<p><b>Resources</b></p>

<p><b>Key Words:</b></p> <p>Pasteurisation, homogenisation, UHT Ultra Heat Treatment cheese curds and whey rennet</p>				
<p><b>Lesson 2: Practical: Butchering a whole chicken – Chicken kebabs</b></p> <p><b>Vegetarians</b> - another complex dish fish if they eat that moussaka with homemade pasta</p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Students are to bring in a whole chicken to butcher, they are to freeze the thighs and drum sticks at school to make a curry next week and to make either a stir fry or chicken cacciatore with the breast.</li> <li>• To apply food safety considerations when preparing, storing and cooking.</li> </ul> <p><b>Key Words:</b></p> <p>Core temperature.</p>	<p><b>Skill 1:</b> General practical skills</p> <p><b>Skill 2:</b> Knife skills - butchering a chicken.</p> <p><b>Skill 3:</b> Preparing vegetables</p> <p><b>Skill 6:</b> Cooking methods</p>	<p><b>Differentiation</b></p> <p>Students might only bring in chicken tights</p> <p><b>Basic:</b> Bring in chicken in a packet.</p> <p>Use vegetable in a stir fry packet.</p> <p><b>Medium:</b> Chicken in a packet have skinned and chopped own veg accurately.</p> <p><b>Complex:</b> Butcher the chicken.</p>	<p><b>Homework:</b></p>	<p><b>Resources</b></p> <p>Trolleys, knives,</p> <p>Tea towels, dish clothes, oven gloves</p> <p>Red chopping boards.</p> <p>Bags to put the chicken in.</p> <p>Gloves</p>
<p><b>Week 3: Lesson 1: Food Safety Prevention of Food Poisoning</b></p> <p><b>Objective:</b></p> <ul style="list-style-type: none"> <li>• To understand how you can prevent food poisoning when buying and storing foods.</li> <li>• To understand the food safety principles when preparing, cooking and serving food.</li> </ul>	<p>3.4.2.1 Buying and storing food</p> <p>3.4.2.2 Preparing, cooking and serving food</p>	<p><b>Differentiation</b></p>	<p><b>Homework:</b></p> <p>To ensure that the booklets relevant pages are completed.</p>	<p><b>Resources:</b></p> <p>Make sure booklet is printed.</p>

<p><b>Key Words:</b></p> <p>temperature control: • freezing: -18°C • chilling: 0 to below 5°C • danger zone: 5 to 63°C • cooking: 75°C • reheating: 75°C • ambient storage • temperature danger zone • correct use of domestic fridges and freezers • date marks • 'best before' and 'use by' dates • covering foods.</p> <p>personal hygiene • clean work surfaces • separate raw and cooked foods and use of separate utensils • correct cooking times • appropriate temperature control including defrosting and reheating • appropriate care with high-risk foods • correct use of food temperature probes.</p>			<p>Bring ingredients to make Cornish pasties.</p>	
<p><b>Lesson 2: Butchering a whole chicken using the left-over chicken pieces – Curry tagine</b></p> <p><b>Vegetarians:</b> a dish using a marinade and meat alternative.</p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Students to use the rest of the chicken that they butchered last week to make a curry.</li> <li>• To apply food safety considerations when preparing, storing and cooking.</li> </ul> <p><b>Key Words:</b></p> <p>Core temperature</p> <p><b>Assessment – practical and theory</b></p>	<p><b>Skill 1:</b> General practical skills</p> <p><b>Skill 2:</b> Knife skills - butchering a chicken.</p> <p><b>Skill 3:</b> Preparing vegetables</p> <p><b>Skill 6:</b> Cooking methods</p>	<p><b>Differentiation</b></p> <p><b>Basic:</b> Bring in chicken in a packet.</p> <p><b>Medium:</b> Chicken in a packet have skinned and chopped own veg accurately.</p> <p><b>Complex:</b> Butcher the chicken. show good knife skills</p>	<p><b>Homework:</b></p>	<p><b>Resources</b></p> <p>Trolleys, knives,</p> <p>Tea towels, dish clothes, oven gloves.</p>

<p><b>Week 4: Theory:</b> Food Provenance and How Food is Grown</p> <p><b>Objective:</b></p> <ul style="list-style-type: none"> <li>• where and how ingredients are grown, reared and caught.</li> <li>• must have an understanding of organic and conventional farming • free range production • intensive farming • sustainable fishing</li> <li>• must have an understanding advantages and disadvantages of local produced foods, seasonal foods and Genetically Modified (GM) foods - homework</li> </ul> <p><b>Key Words:</b></p> <p>Food provenance, Sustainable, Organic, free range, intensive farming, sustainable fishing,</p>	<p>3.6.1.1 Food Sources</p> <p>3.6.1.2 Food and the environment</p>	<p><b>Differentiation</b></p>		<p><b>Resources:</b></p> <p>Make sure the booklet is printed ready to give out.</p>
<p><b>Lesson 2: Practical – Practical Cornish pasties</b></p> <p>Students to choose to make sure that they use the correct type of food preparation to prevent food poisoning.</p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• To apply food safety considerations when preparing, storing and cooking.</li> <li>• To work on pastry skills.</li> </ul> <p><b>Key Words:</b></p> <p>Temperature control correct hygiene and use of chopping boards.</p>	<p><b>Skill 1:</b> General practical skills</p> <p><b>Skill 4:</b> Use of the cooker</p> <p><b>Skill 5:</b> Use of equipment food processors</p> <p><b>Skill 7:</b> Prepare, combine and shape</p> <p><b>Skill 10:</b> Dough pastry</p>	<p><b>Differentiation</b></p> <p><b>Basic:</b> Pastry is very short a splits when making uneven shapes, used pasties equipment.</p> <p><b>Medium:</b> good colour and shape filling shows some skill.</p>		<p><b>Resources</b></p> <p>Trolleys, knives,</p> <p>Tea towels, dish clothes, oven gloves.</p>



		<p><b>Complex:</b> Good knife skill for the filling.</p> <p>Good shape and closure of pasties.</p>		
<p><b>Week 5: Theory</b> Environmental Impact and Sustainability</p> <p><b>Objective:</b></p> <ul style="list-style-type: none"> <li>• How the environment impacts seasonal foods • sustainability eg fish farming • transportation • organic foods • the reasons for buying locally produced food • food waste in the home/ food production/retailers • environment issues related to packaging • carbon footprint.</li> <li>• the impact of food and food security on local and global markets and communities.</li> <li>• Students must have an awareness of: • climate change • global warming • sustainability of food sources • insufficient land for growing food • availability of food • fair-trade • problems of drought and flooding • Genetically Modified (GM) foods • food waste.</li> </ul> <p><b>Key Words:</b></p> <p>Food provenance, Sustainable, Organic, free range, intensive farming, sustainable fishing, GM foods, greenhouse effect carbon footprint, food miles fair trade 6Rs</p>	<p>3.6.1.1 Food Sources</p> <p>3.6.1.2 Food and the environment</p> <p>3.6.1.3 Sustainability of food</p>	<p><b>Differentiation</b></p> <p><b>Basic:</b> Pastry is very short a splits when making uneven shapes, used pasties equipment.</p> <p><b>Medium:</b> good colour and shape filling shows some skill.</p> <p><b>Complex:</b> Good knife skill for the filling.</p> <p>Good shape and closure of pasties</p>		<p><b>Resources</b></p> <p>Trolleys, knives,</p> <p>Tea towels, dish clothes, oven gloves.</p>
<p><b>Lesson 2: Practical – Practical Chicken Pie</b></p> <p>Students to choose to make sure that they use the correct type of food preparation to prevent food poisoning.</p>	<p><b>Skill 1:</b> General practical skills</p> <p><b>Skill 4:</b> Use of the cooker</p>	<p><b>Differentiation</b></p>		<p><b>Resources</b></p>

<p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>To apply food safety considerations when preparing, storing and cooking.</li> <li>To work on pastry skills.</li> </ul> <p><b>Key Words:</b></p> <p>Temperature control correct hygiene and use of chopping boards.</p>	<p><b>Skill 5:</b> Use of equipment food processors</p> <p><b>Skill 7:</b> Prepare, combine and shape</p> <p><b>Skill 10:</b> Dough pastry</p>	<p><b>Basic:</b> Pastry is very short a splits when making uneven shapes, used pasties equipment.</p> <p><b>Medium:</b> good colour and shape filling shows some skill.</p> <p><b>Complex:</b> Good knife skill for the filling.</p> <p>Good shape and closure of pasties.</p>		<p>Trolleys, knives,</p> <p>Tea towels, dish clothes, oven gloves.</p>
<p><b>Week 6: Theory Food Choice</b></p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>To know and understand factors which may influence food choice.</li> <li>The following factors in relation to food choice: • physical activity level (PAL) • celebration/occasion • cost of food • preferences • enjoyment • food availability • healthy eating • income • lifestyles • seasonality • time of day • time available to prepare/ cook.</li> <li><i>Food labelling and marketing influences - homework</i></li> <li>Students must be able to cost recipes and make modifications.</li> </ul>	<p>3.5.1.1 Factors which influence food choice</p> <p>3.5.1.2 Food choices</p> <p>3.5.1.3 Food labelling and marketing influences</p>	<p><b>Differentiation</b></p>	<p><b>Homework:</b></p> <p>Bring ingredients to make pasties students have to justify their choice of filling.</p> <p>Cost out the price of their pastie</p>	<p><b>Resources</b></p>

<p><b>Key Words:</b></p> <p>physical activity level (PAL) • celebration/occasion • cost of food • preferences • enjoyment • food availability • healthy eating • income • lifestyles • seasonality • time of day • time available to prepare/ cook.</p>				
<p><b>Lesson 2: Practical To make a seasonal fruit tart with crème pat</b></p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Learn how to make a crème pat sauce</li> <li>• To apply food safety considerations when preparing, storing and cooking.</li> </ul> <p><b>Key Words:</b></p> <p>Crème pat</p> <p><b>Assessment – practical</b></p>	<p><b>Skill 1:</b> General practical skills</p> <p><b>Skill 4:</b> Use of the cooker</p> <p><b>Skill 7:</b> Prepare, combine and shape</p> <p><b>Skill 10:</b> Dough short crust pastry</p>	<p><b>Differentiation</b></p> <p><b>Basic:</b> Bring ready made pastry</p> <p><b>Medium:</b></p> <p><b>Complex:</b></p>	<p><b>Homework:</b></p> <p>Revision</p>	<p><b>Resources</b></p> <p>Trolleys, knives,</p> <p>Tea towels, dish clothes, oven gloves.</p> <p>Baking trays</p>
<p><b>Week 7: Lesson 1: Theory Processing and Production</b></p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• Students must have an understanding of primary and secondary stages of processing and production.</li> <li>• how processing affects the sensory and nutritional properties of ingredients</li> <li>• Students to cook various vegetables in different ways to see how they change</li> </ul>	<p>3.6.2.1 Food production</p> <p>3.6.2 Food processing and production</p> <p>3.6.2.1 Food production</p>	<p><b>Differentiation</b></p>	<p><b>Homework:</b></p> <p>Bring ingredients to make a preserve.</p>	<p><b>Resources</b></p> <p>Trolleys, knives,</p> <p>Tea towels, dish clothes, oven gloves.</p>

<ul style="list-style-type: none"> <li>Students to make jam in the lesson that they can use next lesson to make a Victoria Sponge.</li> </ul> <p><b>Key Words:</b> Primary and secondary processing.</p>			Revision	<p>Print out results sheets</p> <p>Carrots, potatoes, leeks, broccoli and squash.</p>
<p><b>Practical To make a preserve</b></p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>Students to make a preserve using seasonal fruits jam</li> </ul> <p><b>Key Words:</b> Sterilization, seal of jam, setting point</p>	<p><b>Skill 1:</b> General practical skills</p> <p><b>Skill 5:</b> Use of equipment sugar thermometer</p> <p><b>Skill 7:</b> Prepare, combine and shape</p> <p><b>Skill 8:</b> Sauce making - curd, jam</p> <p><b>Skill 12:</b> Setting mixtures curd</p>	Differentiation	<p><b>Homework:</b>  Bring ingredients to make a Victoria Sponge</p>	<p><b>Resources</b></p> <p>Trolleys, knives,</p> <p>Tea towels, dish clothes, oven gloves.</p>
<p><b>Lesson 2: Practical Victoria Sponge</b></p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>Students to use their preserve in a sponge cake</li> </ul> <p><b>Key Words:</b></p>	<p><b>Skill 1:</b> General practical skills</p> <p><b>Skill 4:</b> Use of the cooker</p> <p><b>Skill 7:</b> Prepare, combine and shape</p>	Differentiation	<p><b>Homework:</b></p>	<p><b>Resources</b></p> <p>Trolleys, knives,</p> <p>Tea towels, dish clothes, oven gloves.</p>

<p><b>Week 7: Lesson 1:</b></p> <p><b>Assessment – year 10 mock exam full paper revision and exam techniques</b></p>		<p><b>Differentiation</b></p>	<p><b>Homework:</b></p>	<p><b>Resources</b></p> <p>Print out assessments</p>
<p><b>Lesson 2: Target setting</b></p> <p><b>Objective:</b></p> <p>Go through year 10 exam paper and assessment and make a list of things students need to revise for the summer holidays.</p>		<p><b>Differentiation</b></p>	<p><b>Homework:</b></p>	<p><b>Resources</b></p>

## Improving our technical skills ready for NEA

Use the following time to prepare for the year 10 practical exam NEA 2 3 hour exam practise

### Demonstrating technical skills (18 marks)

Students will make 3–4 dishes to showcase their technical skills.

Students should:

- demonstrate technical skills in the preparation and cooking of three to four dishes
- select and use equipment for different technical skills in the preparation and cooking of selected dishes. Food safety principles should be demonstrated when storing, preparing and cooking
- identify the technical skills within each dish. Photographic evidence will be needed to authenticate the technical skills.

Students will select three dishes to make which allow them to showcase their technical skills to make for their final menu. The final dishes will relate to the task and research and be dishes that have not been made previously.

For example, a student could make the following initial dishes to demonstrate technical skills:

1. Fish pie (**technical skills shown:** filleting fish, making a sauce, vegetable preparation, piping potato).
2. Beef lasagne (**technical skills shown:** pasta making, sauce making, vegetable preparation).
3. Traditional quiche (**technical skills shown:** shortcrust pastry, lining a flan ring).
4. Flavoured bread rolls (**technical skills shown:** bread making: kneading, shaping).

For the final menu, they could choose to produce:

1. Fish cakes with parsley sauce.
2. Cannelloni with homemade pasta and tomato ragu sauce.
3. Roasted vegetable flan with reduced fat ingredients to improve the nutritional properties.

Students will be rewarded for the use of a range of technical skills and the quality of outcomes achieved. The complexity and challenge of the dishes produced is linked to the complexity of the skills involved in producing the dish. To achieve the top bands, students must attempt complex skills. Selecting unchallenging skills prevents candidates from reaching the top mark band.





