

# Qualification specification

**NCFE Level 1/2 Technical Award in Food and  
Cookery  
QN: 603/7014/2**

**Qualification summary**

<b>Qualification title</b>	NCFE CACHE Level 1/2 Technical Award in Food and Cookery		
<b>Ofqual qualification number (QN)</b>	603/7014/2	<b>Aim reference</b>	60370142
<b>Guided learning hours (GLH)</b>	138	<b>Total qualification time (TQT)</b>	152
<b>Minimum age</b>	14		
<b>Qualification purpose</b>	<p>This qualification is part of a suite of technical award qualifications that have been developed to meet the Department for Education's (DfE's) requirements for high-quality, rigorous qualifications that:</p> <ul style="list-style-type: none"> <li>• have appropriate content for the learner to acquire core knowledge and practical skills</li> <li>• allow the qualification to be graded</li> <li>• provide synoptic assessment</li> <li>• enable progression to a range of study and employment opportunities</li> </ul>		
<b>Grading</b>	Level 1 pass/merit/distinction Level 2 pass/merit/distinction/distinction*		
<b>Assessment method</b>	Externally-set: non-exam assessment (NEA) and an examined assessment (EA)		
<b>Performance points</b>	Please check with the DfE for the most up-to-date information, should there be any changes		

## Contents

### Qualification summary

#### Section 1: introduction 4

Aims and objectives	4
Support handbook	4
Entry guidance	4
Achieving this qualification	5
Progression	5
Staffing requirements	6
Resource requirements	6
Real work environment requirement/recommendation	6
Work/industry placement experience	6
Purpose statement	7
How the qualification is assessed	10
Overall grading descriptors	15
Grading information	16

#### Section 2: unit content and assessment guidance 17

Content areas	19
Teaching content	21
1. Health and safety relating to food, nutrition and the cooking environment	21
2. Food legislation and food provenance	24
3. Food groups, key nutrients and a balanced diet	28
4. Factors affecting food choice	41
5. Food preparation, cooking skills and techniques	43
6. Recipe amendment, development and evaluation	46
7. Menu and action planning for completed dishes	47
Teaching guidance	49
Synoptic connections	65

#### Section 3: additional information 66

School accountability measures (performance points)	66
Discounting	66
Qualification dates	66
Support materials	67
Reproduction of this document	67
Contact us	68

## Section 1: introduction

Please note this is a draft version of the qualification specification and is likely to be subject to change before the final version is produced for the launch of the qualification.

If you are using this qualification specification for planning purposes, please make sure that you are using the most recent version.

### Aims and objectives

This qualification aims to:

- focus on the study of food and cookery
- offer breadth and depth of study, incorporating a key core of knowledge
- provide opportunities to acquire a range of practical and technical skills

The objectives of this qualification are to:

- provide an understanding of health and safety relating to food, nutrition, and the cooking environment
- provide an understanding of legislation in the food industry
- identify and understand food provenance
- provide an understanding of the main food groups, key nutrients and what is required as part of a balanced diet
- identify factors that can affect food choice
- explore recipe development and how recipes can be adapted
- understand how to cater for people with specific dietary requirements
- demonstrate menu and action planning
- be able to evaluate and consider how to improve completed dishes
- demonstrate the application of practical skills and techniques through all aspects of the qualification content areas

### Support handbook

This qualification specification must be used alongside the mandatory support handbook on the qualifications page on the NCFE website, which contains additional supporting information to help with the planning, delivery and assessment.

This qualification specification contains all of the qualification-specific information you will need that is not covered in the support handbook.

### Entry guidance

This qualification is designed for learners aged 14 to 16 in schools and colleges, but is also accessible for post-16 learners.

It is a vocational qualification equivalent to GCSE grades 8.5 to 1.

There are no specific prior skills/knowledge a learner must have for this qualification.

Entry is at the discretion of the centre.

Centres are responsible for ensuring that all learners are capable of achieving the learning outcomes and complying with the relevant literacy, numeracy and health and safety requirements.

Learners registered on this qualification should not undertake another qualification at the same level, or with the same/a similar title, as duplication of learning may affect funding eligibility.

### Achieving this qualification

To be awarded this qualification, learners are required to successfully achieve all learning outcomes from the single graded mandatory unit.

<b>Qualification title</b>		NCFE Level 1/2 Technical Award in Food and Cookery
<b>Qualification number (QN)</b>		603/7014/2
<b>Level</b>		Combined level 1/2
<b>Guided learning hours (GLH)</b> (Total GLH has been rounded up to the nearest hour)		138
<b>GLH breakdown</b>		<ul style="list-style-type: none"> <li>• 120 hours delivery</li> <li>• 1 hour 30 minutes examined assessment</li> <li>• 16 hours 30 minutes non-exam assessment</li> </ul>
<b>Non-exam assessment (NEA)</b>	Weighting (60%)	Externally-set, internally marked and externally moderated: <ul style="list-style-type: none"> <li>• synoptic project</li> </ul>
<b>Examined assessment (EA)</b>	Weighting (40%)	Externally-set and externally marked: <ul style="list-style-type: none"> <li>• written exam</li> </ul>
<b>Total</b>	100%	Overall qualification grades: L1P, L1M, L1D, L2P, L2M, L2D, L2D*

Please refer to the content area summaries in section 2 for further information.

To achieve this qualification, learners must successfully demonstrate their achievement of all learning outcomes of the units as detailed in this qualification specification.

### Progression

Depending on the grade the learner achieves in this qualification, they could progress to level 2 and level 3 qualifications and/or GCSE/A Levels.

Learners who achieve at level 1 might consider progression to level 2 qualifications post-16, such as:

- GCSE in Food Preparation and Nutrition
- Certificate/Diploma in Culinary Skills
- NVQ Diploma in Food Production and Cooking
- Level 2 Technical Certificate in Professional Cookery
- a range of technical routes designed for progression to employment, apprenticeships and further study

Learners who achieve at level 2 might consider progression to level 3 qualifications post-16, such as:

- Level 3 Applied Certificate/Diploma in Food Science and Nutrition
- Advanced Technical Diploma in Professional Cookery
- T Level in Catering (this will support progression to higher education)

Learners could also progress into employment or onto an apprenticeship. The understanding and skills gained through this qualification could be useful to progress onto an apprenticeship in the food industry through a variety of occupations within the sector, such as kitchen assistant, catering assistant, chef and sous chef.

### **Staffing requirements**

There are no additional staffing requirements for this qualification. See the staffing requirements section in the support handbook.

### **Resource requirements**

The resources required to deliver this qualification are as follows:

Learners must have access to:

- adequate kitchen space to demonstrate a range of preparation skills, cooking techniques and methods, ensuring the learner is not hindered or constrained by inadequate working space
- sufficient work top space so the learner is not working in cramped conditions and can demonstrate a range of preparation skills and cooking techniques
- a kitchen with sufficient hob and oven space so that the learner can demonstrate a range of cooking methods which is not constrained
- sufficient fridge and freezer space so that food can be chilled at appropriate stages within the necessary timeframe or frozen for future use
- adequate sink space so the learner can work in a safe and hygienic manner
- a good range of equipment (to include some automated) that enables the learner to demonstrate a wide range of preparation skills and techniques
- a wide range of utensils so the learner does not have to keep washing up items to reuse
- IT equipment for recording and storing work
- camera to photograph practical work for assessment evidence purposes

### **Real work environment requirement/recommendation**

This is a knowledge-only qualification. Experience in the real work environment is not required.

### **Work/industry placement experience**

This is a knowledge-only qualification. Work/industry placement experience is not required.

## **Purpose statement**

### **Who is this qualification for?**

The Level 1/2 Technical Award in Food and Cookery is designed for learners who want an introduction to food and cookery that includes a vocational and project-based element. The qualification will appeal to learners who wish to pursue a career in the food industry or progress onto further study.

The Level 1/2 Technical Award in Food and Cookery complements GCSE qualifications. It is aimed at 14 to 16 year olds studying key stage 4 (KS4) curriculum who are interested in the food and hospitality sector. This qualification is designed to match the rigour and challenge of GCSE study. The qualification is graded at level 1 pass/merit/distinction and level 2 pass/merit/distinction/distinction\* (equivalent to GCSE grades 8.5 to 1). More information on grading can be found in the grading information in section 2 of this document.

This qualification has been designed to sit alongside the requirements of core GCSE subjects and is appropriate for learners who are motivated and challenged by learning through practical experiences and through content which directly relates to the practical skills.

This qualification is distinct from GCSE Food Preparation and Nutrition as it provides learners with the opportunity to explore and understand a wide range of themes connected with food and cookery that learners can apply to a variety of scenarios. It has a strong focus on the elements of food preparation and cooking, developing a wide range of technical and practical skills, and the ability to amend recipes and respond to a brief. This strong practical focus will ensure learners have time to develop, practise and perfect a tangible skillset and be able to apply the skills they achieve to a range of contexts. These skills will be underpinned by a thorough understanding of the importance of safe hygienic working practices, nutrition, balanced diets, individual dietary needs, and factors that affect food choice.

This qualification will enable learners to develop their personal interest and skills in cookery that will help them to prepare food that is healthy and nutritious. These vocational skills will help the learner to make appropriate food choices and provide a balanced diet for themselves and others. These skills can readily be transferred to further study or employment within the food sector.

This level 1/2 qualification is appropriate for learners who are looking to develop a core of knowledge and understanding of food and cookery principles, and apply their knowledge through a series of practical tasks and by using a wide range of cooking skills.

**What will the learner study as part of this qualification?**

This qualification will promote the learner's understanding of:

- health and safety relating to food, nutrition and the cooking environment
- legislation in the food industry
- food provenance
- the main food groups, key nutrients and what is required for a balanced diet
- factors that affect food choice
- recipe development and how recipes may be adapted
- applying practical cooking skills and techniques
- the importance of planning a menu and action planning
- catering for people who have specific dietary requirements
- evaluating completed dishes

**What knowledge and skills will the learner develop as part of this qualification and how might these be of use and value in further studies?**

Learners will develop the following knowledge that will inform future training and work in the food sector:

- an understanding of health and safety in a cooking environment and how to prepare and cook food safely
- the importance of legislation that governs the food industry
- where food is sourced, seasonality and food production processes
- food groups and the role of key nutrients to maintain a healthy, balanced diet
- factors that impact on food choice (to include health conditions, allergies, and intolerances) and how dishes can be adapted
- developing, honing and applying food preparation skills and techniques to achieve a consistent standard of the product over time
- recipe development and amendment
- an understanding of the importance of planning and sequencing when cooking dishes
- effective time management
- an understanding of how to present, decorate, garnish, evaluate and improve dishes

Learners will develop the following skills which will inform future training and work in the food sector:

- decision making
- resourcefulness
- communicating
- independent working
- problem solving
- planning
- evaluation
- reflection
- professional behaviour
- the importance of continuing professional and personal development
- an ability to reflect upon their preferred learning style and identify relevant study skills

Successful completion of this qualification will enable learners to progress to level 2 or 3 qualifications in related subjects.

The knowledge and skills gained will provide a secure foundation for learners to progress into career opportunities in the food sector and provide a valuable platform for progressing to further study, training and employment.

### **Which subjects will complement this course?**

The following subject areas will complement this course:

- food preparation and nutrition
- English
- maths
- science

This list is not exhaustive, and a range of other subject areas may also be appropriate. This qualification is not part of a subject suite.

## How the qualification is assessed

Assessment is the process of measuring a learner's skill, knowledge and understanding against the standards set in a qualification.

The qualification has **2** assessments externally-set by NCFE: **one** non-exam assessment and **one** written examined assessment.

Non-exam assessment	
Assessment method	Description
Non-exam assessment	60% of the technical award
Externally-set	96 marks
Internally marked and externally moderated	The completion time for the non-exam assessment is 16 hours 30 minutes.  The non-exam assessment will assess the learner's ability to effectively draw together their knowledge, understanding and skills from across the whole vocational area. The non-exam assessment will target assessment objectives (AOs) AO1, AO2, AO3, AO4 and AO5.
Non-exam assessment availability	The learner should not undertake the non-exam assessment until all content areas have been delivered. This is to ensure learners are in a position to complete the non-exam assessment successfully.  A different non-exam assessment brief will be released every December.

## Non-exam assessment

Non-exam assessment encourages the learner to combine elements of their learning and to show accumulated knowledge and understanding across the content areas.

Non-exam assessment enables the learner to show their ability to integrate and apply knowledge, understanding and skills with breadth and depth. It also requires them to demonstrate their capability to apply knowledge, understanding and skills across a range of units and learning outcomes that are being assessed.

The non-exam assessment is internally assessed work and should be completed by the learner in accordance with the qualification specification. Information on delivery guidance and assessment hours for the internal assessment will be available in the non-exam assessment brief. To support with this, we have also created a sample non-exam assessment brief, which is available on the qualification page under support materials. A representative number of assessment hours should be timetabled into the scheme of work. Internal assessment hours must be administered outside of scheduled teaching and learning hours and should be supervised and assessed by the teacher.

Any work submitted for internal assessment must be completed during scheduled assessment hours in accordance with the scheme of work and must be authenticated and attributable to the learner. The teacher must be satisfied that the work produced is the learner's own and the learner must declare that the work is their own.

In practice, this means that all of the non-exam assessment will be completed in normal class time within scheduled assessment hours and kept separate from any teaching and learning hours.

The internally assessed non-exam assessment component is based on coverage of the qualification content areas, which are assessed holistically against descriptors to achieve a grade.

Each learner must create a portfolio of evidence generated from appropriate assessment tasks that demonstrates achievement of all the learning outcomes associated with each unit. The assessment tasks should allow the learner to respond to a real-life situation that they may face when in employment. On completion of each unit, learners must declare that the work produced is their own and the assessor must countersign this. Examples of suitable evidence for the portfolio for each unit are provided in section 2.

Examined assessment	
Assessment method	Description
Examined assessment	40% of technical award
Externally-set	Written examination:
Written examination	<ul style="list-style-type: none"> <li>• 80 marks</li> <li>• 1 hour 30 minutes</li> <li>• a mixture of multiple-choice, short-answer, and extended response questions</li> </ul>
Externally marked	The written examined assessment is a terminal assessment and will assess the learner's knowledge and understanding of all content areas and target assessment objectives AO1, AO2 and AO3.
Examined assessment availability	The examination date is expected to take place in May/June every year. Please refer to the external assessment timetable available on the NCFE website.

### Examined assessment

Examined assessments are set and marked by NCFE. The assessment assesses learners' knowledge and understanding of the content areas of this qualification. Centres must not assess, internally quality assure, or otherwise access or review any examined assessment materials or learner responses at any time and must adhere to the required exam regulations at all times.

The examined assessment is on a set date and time (invigilated). NCFE specifies the date and time that the examined assessment must be administered in the centre and also publishes in advance the dates on which external assessment results will be released.

A variety of assessment questions will be used, including multiple-choice, short-answer and extended response questions. This will enable learners to demonstrate their breadth of knowledge and understanding of the subject and ensure achievement at the appropriate level, including stretch and challenge. Questions will be written in plain English and in a way that is supportive and accessible to learners of all abilities.

As far as possible, real-world case studies and contexts that are relevant to the sector will be used. This is to engage and stimulate learners under examination conditions and to facilitate the drawing out of

a wide range of knowledge and skills developed throughout their learning.

All questions will have available marks clearly identified. The examined assessment will be carefully constructed following a rigorous quality control process to ensure that the assessment is valid.

For further information, including instructions for conducting an external assessment, centres must ensure they have read/are familiar with the regulations for the conduct of external assessment, and qualification specific instructions for delivery documents available on the policies & documents page on the NCFE website.

The examined assessment material will be sent out in time for the start of the assessment. Assessment materials must be kept secure at all times in line with the requirement of the regulations for the conduct of external assessment.

You must return all examined assessment materials and partially or fully completed learner work to NCFE within one working day of the examined assessment taking place or the final timetabled supervised/invigilated session.

### **Rationale for synoptic assessment**

Synoptic assessment encourages the learner to combine elements of their learning and to show accumulated knowledge and understanding across units and/or learning outcomes.

Synoptic assessment enables the learner to show their ability to integrate and apply knowledge, understanding and skills with breadth and depth. It also requires them to demonstrate their capability to apply knowledge, understanding and skills across a range of units and learning outcomes that are being assessed.

### **Enquiries about results**

All enquiries relating to learners' results must be submitted in line with our enquiries and appeals about results and assessment decisions policy, which is available on the policies & documents page on the NCFE website.

### **External assessment conditions**

For more information on external assessment conditions, please see the regulations for the conduct of external assessments and qualification specific instructions for delivery on the policies & documents page on the NCFE website.

There is one assessment window during the year. Please refer to the external assessment timetable on the NCFE website for the specific date.

For instructions on conducting external assessments, please refer to our regulations for the conduct of external assessments and qualification specific instructions for delivery documents, available on the policies & documents page on the NCFE website.

### **Assessment windows**

For assessments sat in windows, the centre must enter learners to the specified window. This will be either a set date and time assessment or a window in which the assessment will be completed.

For qualifications with 'entry on registration', the centre will choose the assessment window at the point of registering the learner. The last date that we will accept learner work for a specified assessment window is by that assessment window's cut-off date.

**Please note: the 'cut-off date' is the last day that returned scripts will be accepted for the specified assessment window.**

On completing their work at the end of the assessment window, learners must sign the assessment declaration to authenticate the work produced as their own. Centres must ensure that all assessments are submitted for marking in accordance with the assessment windows.

### Scheme of assessment

The Level 1/2 Technical Award in Food and Cookery qualification is made up of 2 component parts: an examined assessment (EA) and a non-exam assessment (NEA).

Assessments	Assessment time	% weighting	Raw marks	Scaling factor	Scaled marks*	Assessment conditions	Marking
Non-exam assessment (NEA)	16 hours 30 minutes	60%	96	1.250	120	Supervised	Internal, with external moderation
Examined assessment (EA)	1 hour 30 minutes	40%	80	1.00	80	Invigilated	External
<b>Assessment total</b>	<b>18 hours</b>	<b>100%</b>			200		

### Assessment objectives

The assessment of our technical awards is mapped against assessment objectives (AOs). These AOs provide a consistent framework for learners and are applied synoptically, allowing learners to show their knowledge, understanding and skills from across the full breadth and depth of the qualification.

The AOs that will be assessed against the content in our technical awards are:

<b>AO1</b>	<b>Recall knowledge and show understanding</b> The emphasis here is for learners to recall and communicate the fundamental elements of knowledge and understanding.
<b>AO2</b>	<b>Apply knowledge and understanding</b> The emphasis here is for learners to apply their knowledge and understanding to real-world contexts and novel situations.
<b>AO3</b>	<b>Analyse and evaluate knowledge and understanding</b> The emphasis here is for learners to develop analytical thinking skills to make reasoned judgements and reach conclusions.
<b>AO4</b>	<b>Demonstrate and apply relevant technical skills, techniques and processes</b> The emphasis here is for learners to demonstrate the essential technical skills relevant to the vocational sector by applying the appropriate processes, tools and techniques.
<b>AO5</b>	<b>Analyse and evaluate the demonstration of relevant technical skills, techniques and processes</b> The emphasis here is for learners to analyse and evaluate the essential technical skills, processes, tools and techniques relevant to the vocational sector.

### Assessment objective weightings

The table below shows the approximate weightings for each of the AOs in the technical award assessments.

AOs	Non-exam assessment (%)	Examined assessment (%)	Overall weighting (%)
AO1	8.3%	40–45%	21–23%
AO2	12.5%	35–40%	21.5–23.5%
AO3	27.1%	20–25%	24.3–26.3%
AO4	37.5%	N/A	22.5%
AO5	14.6%	N/A	8.8%
<b>Overall weighting of assessments</b>	<b>60%</b>	<b>40%</b>	<b>100%</b>

The purpose of the qualification means that it is necessary to assess understanding through 2 means of assessment, an internal non-exam assessment (NEA) and an external examined assessment (EA). The variance in assessment methods used allows for a range of knowledge, understanding and skills to be assessed using the most fit for purpose method.

#### Non-exam assessment

Refer to the mark scheme for the current non-exam assessment where you will find the information required to mark the non-exam assessment tasks and their descriptors.

Centres will mark the non-exam assessment, and this will then be submitted to NCFE for moderation.

#### Examined assessment

The examined assessment will be submitted to NCFE for marking to calculate the overall grades for learners.

## Overall grading descriptors

### To achieve a level 2 distinction, learners will be able to:

- recall and apply highly relevant knowledge and understanding, in an excellent and highly comprehensive manner, of food health and safety, food provenance and legislation, nutrition, factors affecting food choice, preparation and cooking skills, recipe amendment and menu planning
- critically analyse and evaluate to make excellent, reasoned judgements and reach well-supported conclusions on food health and safety, food provenance and legislation, nutrition, factors affecting food choice, preparation and cooking skills, recipe amendment and menu planning
- safely and effectively demonstrate essential and excellent skills, techniques and processes relevant to the sector when using a wide range of equipment and ingredients to plan, prepare and present complex dishes (including amending recipes and creating those suitable for different food-related health conditions)
- critically analyse and evaluate their own demonstration of relevant skills, techniques and processes relevant to the sector when planning and preparing complex, completed dishes in an excellent and comprehensive manner

### To achieve a level 2 pass, learners will be able to:

- recall and apply mostly relevant knowledge and understanding, in a good and mostly detailed manner, of food health and safety, food provenance and legislation, nutrition, factors affecting food choice, preparation and cooking skills, recipe amendment and menu planning
- analyse and evaluate to make good, mostly reasoned judgements and reach coherent conclusions on food health and safety, food provenance and legislation, nutrition, factors affecting food choice, preparation and cooking skills, recipe amendment and menu planning
- safely and effectively demonstrate good and mostly relevant skills, techniques and processes relevant to the sector when using a range of equipment and ingredients to plan, prepare and present completed dishes (including amending recipes and creating those suitable for different food-related health related conditions)
- analyse and evaluate their own demonstration of relevant skills, techniques, and processes relevant to the sector when planning and preparing completed dishes in a good and mostly detailed manner

### To achieve a level 1 pass, learners will be able to:

- recall and apply some knowledge and understanding, in a reasonable manner, that has some relevance and some detail of food health and safety, food provenance and legislation, nutrition, factors affecting food choice, preparation and cooking skills, recipe amendment and menu planning
- analyse and evaluate, in a reasonable manner, to make some judgements and reach straightforward conclusions on food health and safety, food provenance and legislation, nutrition, factors affecting food choice, preparation and cooking skills, recipe amendment and menu planning
- safely and effectively demonstrate some skills, techniques and processes relevant to the sector in a reasonable manner, when using some equipment and ingredients to plan, prepare and present completed dishes (including amending recipes and creating those suitable for different food-related health conditions)
- analyse and evaluate their own demonstration of relevant skills, techniques and processes relevant to the sector when planning and preparing completed dishes in a reasonable, straightforward manner, with some detail

## Grading information

The following grades are available for the qualification: level 2 distinction\*, level 2 distinction, level 2 merit, level 2 pass, level 1 distinction, level 1 merit and level 1 pass.

The qualification is linear, meaning both assessments must be taken in the same assessment series and cannot be combined across different assessment series. After all assessment is complete, the marks for each assessment are combined to give a final mark for each learner. Where raw marks do not reflect the required weighting of the assessment, a scaling factor is applied to the raw mark prior to aggregation.

Scaling factors can be found in the table below.

Assessment	Maximum raw mark	Weighting	Scaling factor	Maximum scaled mark
Non-exam assessment	96 marks	60%	1.250	120
Examined assessment	80 marks	40%	1.000	80
<b>Total</b>				200

For each series, grade boundaries are set by NCFE using a variety of statistical and judgemental evidence. Each learner's overall grade is determined by comparing their combined final mark with the grade boundaries for that series.

Where a learner achieves insufficient marks across the 2 assessments in the series to achieve a level 1 pass, they will be awarded an unclassified (U) result.

## **Section 2: unit content and assessment guidance**

This section provides details of the structure and content of this qualification.

Information in the teaching content section must be covered by the teacher during the delivery of the content areas and should be considered as mandatory teaching content.

The verb 'understand' encompasses both 'knowledge' and 'understanding' within the content areas of this qualification. Each content area will read 'The learner will understand'.

To make cross-referencing assessment and quality assurance easier, we have used a sequential numbering system in this document for each content area. The numbering system used refers to a content area, subject topic, and teaching content (for example, 1.1.1 refers to the content area (first number 1), the subject topic within that learning content (second number 1.1) and the teaching content within the subject topic (third number 1.1.1)). This will support signposting feedback and tracking.

Anything within the teaching guidance is advisory and optional and is intended to provide useful advice and guidance to support delivery of the teaching content.

The types of evidence listed are for guidance purposes only. Within learners' portfolios, other types of evidence are acceptable if all content areas are covered.

Whilst studying the qualification, learners should reflect on the importance of knowing and developing their preferred learning style. They should also be able to identify a range of individual study skills they can use in order to study effectively.

For further information or guidance about this qualification, please contact our customer support team.

**Content areas**

This qualification consists of one unit with multiple content areas.

The regulated unit title is 'Understanding food and cookery'.

The regulated unit number for the qualification content is M/618/6079.

<b>Content area number</b>	<b>Content area title</b>	<b>Suggested GLH</b>
Content area 1	Health and safety relating to food, nutrition and the cooking environment	15
Content area 2	Food legislation and food provenance	15
Content area 3	Food groups, key nutrients and a balanced diet	40
Content area 4	Factors affecting food choice	10
Content area 5	Food preparation, cooking skills and techniques	20
Content area 6	Recipe amendment, development and evaluation	10
Content area 7	Menu and action planning for completed dishes	10

**Content areas**

<b>Content areas</b>	
<b>1. Health and safety relating to food, nutrition and the cooking environment</b>	<ul style="list-style-type: none"> <li>1.1 Safe and hygienic working practices relating to the individual and the cooking environment</li> <li>1.2 Potential hazards and risks in the cooking environment</li> <li>1.3 Hazard Analysis and Critical Control Point (HACCP)</li> <li>1.4 Minimising risk in the cooking environment</li> <li>1.5 Safe and hygienic working practices when using cooking equipment and utensils</li> </ul>
<b>2. Food legislation and food provenance</b>	<ul style="list-style-type: none"> <li>2.1 The Food Standards Agency and food safety legislation</li> <li>2.2 Food provenance               <ul style="list-style-type: none"> <li>2.2.1 Grown</li> <li>2.2.2 Reared</li> <li>2.2.3 Caught</li> </ul> </li> <li>2.3 Food transportation</li> <li>2.4 Food processing               <ul style="list-style-type: none"> <li>2.4.1 Why food is processed</li> <li>2.4.2 Advantages of processed food</li> <li>2.4.3 Disadvantages of processed food</li> </ul> </li> <li>2.5 Food manufacturing               <ul style="list-style-type: none"> <li>2.5.1 Why food is manufactured</li> <li>2.5.2 Advantages of manufactured food</li> <li>2.5.3 Disadvantages of manufactured food</li> </ul> </li> </ul>
<b>3. Food groups, key nutrients and a balanced diet</b>	<ul style="list-style-type: none"> <li>3.1 Food groups</li> <li>3.2 The components of a balanced diet               <ul style="list-style-type: none"> <li>3.2.1 Proportions of the food groups</li> <li>3.2.2 UK government healthy eating tips</li> </ul> </li> <li>3.3 Nutrients               <ul style="list-style-type: none"> <li>3.3.1 Sources and functions of macronutrients</li> <li>3.3.2 Sources and functions of micronutrients</li> <li>3.3.3 Sources and functions of minerals</li> <li>3.3.4 Sources and functions of water</li> </ul> </li> <li>3.4 Nutrient imbalances</li> <li>3.5 Fibre</li> <li>3.6 Nutritional requirements for different groups of people</li> <li>3.7 Food-related health conditions               <ul style="list-style-type: none"> <li>3.7.1 Health conditions</li> <li>3.7.2 Intolerances</li> <li>3.7.3 Allergies</li> </ul> </li> <li>3.8 Nutritional information on food labels</li> </ul>
<b>4. Factors affecting food choice</b>	<ul style="list-style-type: none"> <li>4.1 Social factors</li> <li>4.2 Environmental factors</li> <li>4.3 Seasonality</li> </ul>
<b>5. Food preparation, cooking skills and techniques</b>	<ul style="list-style-type: none"> <li>5.1 Key stages and the purpose of a recipe</li> <li>5.2 The characteristics and function of ingredients</li> <li>5.3 Preparation skills</li> <li>5.4 Cooking techniques and skills</li> </ul>

5.5 Presentation skills to include garnishing and decoration
<b>6. Recipe amendment, development, and evaluation</b> 6.1 Recipe amendment 6.1.1 Amending and developing recipes 6.2 Evaluating completed dishes
<b>7. Menu and action planning for completed dishes</b> 7.1 Interpreting a customer brief 7.2 Menu planning 7.3 Action planning 7.4 Evaluating the planning and outcome of completed dishes against the requirements of a customer brief

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## Teaching content

Information in this section must be covered by the teacher during the delivery of this qualification. Learners should be given the opportunity to cook throughout the course. The number of dishes is not specified but it is important that learners are well prepared and have developed the necessary range of skills highlighted in each section so that they are fully equipped to respond to the non-exam assessment (NEA).

### 1. Health and safety relating to food, nutrition and the cooking environment

The learner will understand the purpose of safe and hygienic working practices for self and the cooking environment. The learner will understand the importance of using the Hazard Analysis and Critical Control Point (HACCP) system in the food industry to minimise risks and hazards.	
<b>1.1</b>	<b>Safe and hygienic working practices relating to the individual and the cooking environment</b>
	<p>The learner will understand safe and hygienic working practices when food is prepared and cooked:</p> <ul style="list-style-type: none"> <li>• safe and hygienic working practices for the individual: <ul style="list-style-type: none"> <li>○ hand washing</li> <li>○ correct clothing and footwear</li> <li>○ hair tied back or covered</li> <li>○ no jewellery or make-up</li> <li>○ blue plasters to cover any cuts and grazes</li> </ul> </li> <li>• safe and hygienic working practices for the cooking environment: <ul style="list-style-type: none"> <li>○ sanitising work surfaces</li> <li>○ checking floors for spillages</li> <li>○ checking equipment prior to use</li> </ul> </li> </ul>
<b>1.2</b>	<b>Potential hazards and risks in the cooking environment</b>
	<p>The learner will understand a range of hazards (which include contamination) in the cooking environment when food is being prepared and cooked. The learner will also understand the potential risks in the cooking environment and how these may be minimised:</p> <ul style="list-style-type: none"> <li>• hazards – the potential to cause harm: <ul style="list-style-type: none"> <li>○ physical contamination: <ul style="list-style-type: none"> <li>▪ plasters</li> <li>▪ hairs</li> <li>▪ nails</li> <li>▪ debris from the building</li> <li>▪ debris from equipment</li> <li>▪ debris from packaging</li> </ul> </li> <li>○ chemical contamination: <ul style="list-style-type: none"> <li>▪ kitchen cleaning agents</li> <li>▪ unwashed fruit and vegetables</li> <li>▪ pest control products</li> </ul> </li> <li>○ biological contamination: <ul style="list-style-type: none"> <li>○ bacteria: <ul style="list-style-type: none"> <li>▪ e-coli</li> <li>▪ salmonella</li> <li>▪ staphylococcus</li> </ul> </li> </ul> </li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>▪ bacillus cereus</li> <li>▪ campylobacter</li> <li>○ high risk foods:             <ul style="list-style-type: none"> <li>▪ high moisture and high protein foods</li> <li>▪ meat</li> <li>▪ fish</li> <li>▪ rice</li> <li>▪ dairy and eggs</li> </ul> </li> <li>○ ideal conditions for bacterial growth:             <ul style="list-style-type: none"> <li>▪ warmth</li> <li>▪ moisture</li> <li>▪ temperature zone – danger zone between 5 to 63°C when food-borne bacteria can grow</li> </ul> </li> <li>○ causes of food spoilage:             <ul style="list-style-type: none"> <li>▪ yeast</li> <li>▪ mould</li> <li>▪ bacteria</li> </ul> </li> <li>○ cross-contamination:             <ul style="list-style-type: none"> <li>▪ unwashed clothing</li> <li>▪ using the same utensils and equipment for raw and cooked foods</li> <li>▪ personal hygiene</li> <li>▪ waste control</li> </ul> </li> <li>• risks – the degree or likelihood that the hazard will cause harm</li> </ul>
<b>1.3</b>	<b>Hazard Analysis and Critical Control Point (HACCP)</b>
	<p>The learner will understand the HACCP system and its purpose for the food industry:</p> <ul style="list-style-type: none"> <li>• HACCP system:             <ul style="list-style-type: none"> <li>○ management system for food safety and hygiene</li> <li>○ legal requirement for all food handling businesses</li> <li>○ details hazards and critical control points specific to a business and the procedures to manage them</li> </ul> </li> <li>• HACCP purpose:             <ul style="list-style-type: none"> <li>○ minimises risks for businesses in areas of food safety</li> <li>○ identifies critical control points:                 <ul style="list-style-type: none"> <li>▪ food purchasing</li> <li>▪ delivery and receipt of goods</li> <li>▪ food storage</li> <li>▪ food preparation</li> <li>▪ service</li> </ul> </li> <li>○ informs action to take if something goes wrong</li> <li>○ ensures procedures are followed and are effective</li> <li>○ ensures appropriate record keeping</li> </ul> </li> </ul>

<b>1.4</b>	<b>Minimising risk in the cooking environment</b>
	<p>The learner will understand the purpose of risk assessments and be able to understand ways to minimise potential hazards when food is prepared and cooked:</p> <ul style="list-style-type: none"> <li>• purpose of risk assessments: <ul style="list-style-type: none"> <li>○ understand common hazards and risks in the cooking environment</li> <li>○ understand how to minimise risks</li> </ul> </li> <li>• minimise risks: <ul style="list-style-type: none"> <li>○ blue plasters for visibility</li> <li>○ remove jewellery</li> <li>○ wash hands</li> <li>○ wash fruit and vegetables</li> <li>○ use colour-coded chopping boards</li> <li>○ maintain safe temperature control of foods</li> <li>○ ensure safe disposal of waste</li> <li>○ check kitchen for trailing cables, spillages and obstacles</li> </ul> </li> </ul>
<b>1.5</b>	<b>Safe and hygienic working practices when using cooking equipment and utensils</b>
	<p>The learner will understand the purpose, safe preparation, usage, cleaning and storage of equipment and utensils when food is prepared and cooked:</p> <ul style="list-style-type: none"> <li>• equipment: <ul style="list-style-type: none"> <li>○ oven used to bake, roast, casserole and reheat food</li> <li>○ hob used to cook foods in saucepans, frying pans, steamers and pressure cookers</li> <li>○ microwave used to defrost, cook or reheat food</li> <li>○ fridge used to chill food</li> <li>○ freezer used to store frozen food and to freeze food that has been cooked or prepared</li> <li>○ scales – used to weigh ingredients to ensure a recipe is accurately followed</li> </ul> </li> <li>• utensils: <ul style="list-style-type: none"> <li>○ knives</li> </ul> </li> <li>• colour-coded chopping boards: <ul style="list-style-type: none"> <li>○ red for raw meat</li> <li>○ blue for raw fish</li> <li>○ yellow for cooked meats</li> <li>○ green for salads and fruit</li> <li>○ brown for vegetables</li> <li>○ white for bakery and dairy</li> </ul> </li> <li>• saucepans used to cook or heat food</li> <li>• sieves used for removing lumps and aerating dry ingredients</li> <li>• mixing bowls used for mixing, blending, and storing food</li> <li>• whisks used for aerating ingredients</li> <li>• rolling pins used for rolling pastry or dough</li> <li>• baking trays used to bake sweet and savoury goods</li> </ul>

## 2. Food legislation and food provenance

The learner will understand food legislation and the provenance of food.	
<b>2.1</b>	<b>The Food Standards Agency and food safety legislation</b>
	<p>The learner will understand the purpose of the Food Standards Agency and current legislation governing food safety:</p> <ul style="list-style-type: none"> <li>• the Food Standards Agency: <ul style="list-style-type: none"> <li>○ an independent UK government department</li> <li>○ responsible for protecting public health in relation to food</li> <li>○ works with local authorities to enforce food safety regulations</li> </ul> </li> <li>• the Food Safety Act 1990 provides: <ul style="list-style-type: none"> <li>○ a framework for all food legislation in England, Wales and Scotland</li> <li>○ gives the Food Standards Agency the power to act in the consumer's interest</li> </ul> </li> <li>• the main responsibilities under the Food Safety Act 1990 ensure businesses: <ul style="list-style-type: none"> <li>○ do not include anything in food that would be damaging to health</li> <li>○ do not remove anything from food that would render it damaging to health</li> <li>○ do not treat food in any way which would be damaging to the health of people eating it</li> <li>○ ensure food that is served or sold is of the quality consumers should expect</li> <li>○ ensure food is labelled, advertised and presented in a way that is not false or misleading</li> </ul> </li> </ul>
<b>2.2</b>	<b>Food provenance</b>
	The learner will understand where food comes from. The learner will understand food can be grown, reared and caught. The learner will understand how food is produced and transported.
<b>2.2.1</b>	<b>Grown</b>
	<p>The learner will understand that food is grown in a variety of different ways:</p> <ul style="list-style-type: none"> <li>• farm grown in: <ul style="list-style-type: none"> <li>○ fields</li> <li>○ orchards</li> <li>○ polytunnels</li> <li>○ greenhouses</li> </ul> </li> <li>• arable farm – crops grown in fields</li> <li>• organic farming – crops are grown without using: <ul style="list-style-type: none"> <li>○ artificial fertilisers</li> <li>○ pesticides</li> <li>○ herbicides</li> </ul> </li> </ul>
<b>2.2.2</b>	<b>Reared</b>
	<p>The learner will understand that livestock and poultry are reared in a variety of ways on different types of farms:</p> <ul style="list-style-type: none"> <li>• types of farm: <ul style="list-style-type: none"> <li>○ large scale or factory farms</li> <li>○ small scale (may be family owned)</li> <li>○ pastoral farming rearing of livestock</li> <li>○ free range farm: <ul style="list-style-type: none"> <li>▪ organic</li> </ul> </li> </ul> </li> <li>• livestock</li> </ul>

	<ul style="list-style-type: none"> <li>• poultry</li> </ul>
<b>2.2.3</b>	<b>Caught</b>
	<p>The learner will understand that fish is caught:</p> <ul style="list-style-type: none"> <li>• at sea</li> <li>• in rivers</li> <li>• fish farms</li> </ul>
<b>2.3</b>	<b>Food transportation</b>
	<p>The learner will understand that food is transported and the importance of health and safety requirements when transporting food:</p> <ul style="list-style-type: none"> <li>• transportation must take into account: <ul style="list-style-type: none"> <li>○ maintenance of the condition of the food</li> <li>○ careful handling if delicate and perishable items</li> <li>○ keeping food chilled</li> <li>○ keeping food frozen</li> <li>○ monitoring temperature margins</li> <li>○ adhering to time limits and shelf life for health and safety reasons</li> </ul> </li> </ul>
<b>2.4</b>	<b>Food processing</b>
	<p>The learner will understand the term 'food processing', the purpose of food processing, and the advantages and disadvantages of consuming processed food:</p> <ul style="list-style-type: none"> <li>• food processing – a stage or stages ingredients go through resulting in an edible product, such as drying or freezing</li> </ul>
<b>2.4.1</b>	<b>Why food is processed</b>
	<p>The learner will understand why food is processed:</p> <ul style="list-style-type: none"> <li>• convenience for the customer</li> <li>• safety</li> <li>• prolong the life of the food</li> <li>• alter the appearance or taste</li> </ul>
<b>2.4.2</b>	<b>Advantages of processed food</b>
	<p>The learner will understand the advantages of processed food:</p> <ul style="list-style-type: none"> <li>• availability: <ul style="list-style-type: none"> <li>○ out of season produce obtainable all year round</li> <li>○ access products outside the UK</li> </ul> </li> <li>• convenience: <ul style="list-style-type: none"> <li>○ easier to store</li> <li>○ easier to transport</li> <li>○ easier to buy in bulk</li> </ul> </li> <li>• cost: <ul style="list-style-type: none"> <li>○ cheaper</li> <li>○ cost reduced if bought in volume</li> </ul> </li> <li>• nutritional content: <ul style="list-style-type: none"> <li>○ some food retains greater nutritional value</li> <li>○ fortification of food</li> </ul> </li> <li>• safety reasons: <ul style="list-style-type: none"> <li>○ preserves food</li> <li>○ longer shelf life</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• taste: <ul style="list-style-type: none"> <li>○ frozen vegetables' flavour captured at its peak</li> </ul> </li> </ul>
<b>2.4.3</b>	<b>Disadvantages of processed food</b>
	<p>The learner will understand the disadvantages of processed food:</p> <ul style="list-style-type: none"> <li>• some foods lose nutritional value when exposed to high levels of: <ul style="list-style-type: none"> <li>○ heat</li> <li>○ light</li> <li>○ oxygen</li> </ul> </li> <li>• cooking processes can cause loss of vitamins</li> <li>• canning: <ul style="list-style-type: none"> <li>○ taste and appearance change</li> <li>○ higher in salt</li> <li>○ higher in sugar</li> <li>○ increased calories</li> <li>○ loss of texture</li> </ul> </li> <li>• dehydrating: <ul style="list-style-type: none"> <li>○ taste and appearance change</li> <li>○ lower nutrient content</li> <li>○ higher in salt</li> <li>○ higher in sugar</li> <li>○ increased calories</li> </ul> </li> <li>• packaging required: <ul style="list-style-type: none"> <li>○ plastic and cardboard</li> <li>○ not always recyclable</li> </ul> </li> </ul>
<b>2.5</b>	<b>Food manufacturing</b>
	<p>The learner will understand the term 'food manufacturing', the purpose of food manufacturing, and the advantages and disadvantages of consuming manufactured food:</p> <ul style="list-style-type: none"> <li>• food manufacturing – the process of taking a range of edible ingredients and transforming them into another edible food product, such as biscuits or ready meals</li> </ul>
<b>2.5.1</b>	<b>Why food is manufactured</b>
	<p>The learner will understand why food is manufactured:</p> <ul style="list-style-type: none"> <li>• to create another product</li> <li>• convenience for the customer</li> <li>• safety reasons to eliminate microorganisms</li> <li>• prolong the life of the food</li> <li>• add nutritional value</li> <li>• alter the appearance or taste</li> </ul>
<b>2.5.2</b>	<b>Advantages of manufactured food</b>
	<p>The learner will understand the advantages of manufactured food:</p> <ul style="list-style-type: none"> <li>• convenience</li> <li>• time-saving</li> <li>• cost</li> <li>• longer shelf life</li> <li>• choice</li> </ul>

<b>2.5.3</b>	<b>Disadvantages of manufactured food</b>
	<p>The learner will understand the disadvantages of manufactured food:</p> <ul style="list-style-type: none"><li>• more additives included in the product</li><li>• tendency to be less healthy due to addition of other ingredients</li><li>• packaging</li><li>• encourages people not to cook</li><li>• more difficult to determine nutritional content</li></ul>

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### 3. Food groups, key nutrients and a balanced diet

The learner will understand the main food groups, key nutrients required for a healthy diet, and the provision of a healthy diet for specific groups of people when food is prepared and cooked.	
<b>3.1</b>	<b>Food groups</b>
	<p>The learner will understand the main food groups according to the Eatwell Guide and understand examples of foods for each group:</p> <ul style="list-style-type: none"> <li>• potatoes, bread, rice, pasta, and other starchy carbohydrates</li> <li>• fruit and vegetables</li> <li>• dairy and alternatives</li> <li>• beans, pulses, fish, eggs, meat, and other proteins</li> <li>• oils and spreads:             <ul style="list-style-type: none"> <li>○ monounsaturated fats</li> <li>○ polyunsaturated fats</li> </ul> </li> <li>• foods high in fat, salt and/or sugar</li> </ul>
<b>3.2</b>	<b>The components of a balanced diet</b>
	<p>The learner will understand what is meant by a balanced diet and how food groups contribute to a balanced diet using current UK dietary recommendations:</p> <ul style="list-style-type: none"> <li>• a balanced diet:             <ul style="list-style-type: none"> <li>○ provides all nutrients in the correct proportion</li> <li>○ water and dietary fibre to meet individual energy and nutritional needs</li> <li>○ should contain a variety of different foods as per the Eatwell Guide</li> <li>○ should be in line with the reference intake (RI) recommendations for:                 <ul style="list-style-type: none"> <li>▪ fat (including saturated fat)</li> <li>▪ sugar</li> <li>▪ salt</li> </ul> </li> <li>○ should be in line with RIs for:                 <ul style="list-style-type: none"> <li>▪ protein</li> <li>▪ carbohydrates</li> <li>▪ vitamins</li> <li>▪ minerals</li> </ul> </li> </ul> </li> </ul>
<b>3.2.1</b>	<b>Proportions of the food groups</b>
	<p>The learner will understand the different proportions of the food groups represented in the Eatwell Guide:</p> <ul style="list-style-type: none"> <li>• proportions:             <ul style="list-style-type: none"> <li>○ potatoes, bread, rice, pasta, and other starchy foods – 37%</li> <li>○ fruit and vegetables – 39%</li> <li>○ beans, pulses, fish, eggs, meat, and other proteins – 12%</li> <li>○ dairy and alternatives – 8%</li> <li>○ oils and fats – 1%</li> <li>○ foods high in fat and sugar (shown outside the Eatwell Guide) – 3%</li> </ul> </li> </ul>

<b>3.2.2</b>	<b>UK government healthy eating tips</b>
	<p>The learner will understand current UK government healthy eating tips:</p> <ul style="list-style-type: none"> <li>• base meals on starchy carbohydrates</li> <li>• eat a minimum of 5 portions of fruit and vegetables per day</li> <li>• eat at least 2 portions of fish per week, one of which should be an oily fish</li> <li>• reduce saturated fat and sugar</li> <li>• reduce salt intake to a maximum of 6g per day</li> <li>• drink plenty of water – 1.75–2 litres per day</li> <li>• do not skip breakfast</li> <li>• get active and exercise regularly</li> </ul>
<b>3.3</b>	<b>Nutrients</b>
	<p>The learner will understand the sources and functions of the nutrients that make up a balanced diet and how they influence a balanced diet.</p>
<b>3.3.1</b>	<b>Sources and functions of macronutrients</b>
	<p>The learner will understand the sources and functions of macronutrients:</p> <ul style="list-style-type: none"> <li>• macronutrients – needed by the body in large amounts and include protein, fats and carbohydrates</li> <li>• carbohydrates:       <ul style="list-style-type: none"> <li>○ complex carbohydrates:           <ul style="list-style-type: none"> <li>▪ long time to break down</li> <li>▪ polysaccharides</li> <li>▪ starch</li> </ul> </li> <li>○ simple carbohydrates:           <ul style="list-style-type: none"> <li>▪ easy to break down</li> <li>▪ monosaccharides and disaccharides</li> <li>▪ sugars</li> </ul> </li> <li>○ sources of complex carbohydrates:           <ul style="list-style-type: none"> <li>▪ wholegrain cereals</li> <li>▪ vegetables</li> <li>▪ beans and legumes</li> </ul> </li> <li>○ sources of simple carbohydrates:           <ul style="list-style-type: none"> <li>▪ sugar</li> <li>▪ refined cereal-based products</li> </ul> </li> <li>○ functions of carbohydrates:           <ul style="list-style-type: none"> <li>▪ provide and store energy for the workings of the body</li> </ul> </li> </ul> </li> <li>• fats:       <ul style="list-style-type: none"> <li>○ visible fat</li> <li>○ invisible fat</li> <li>○ sources of fats:           <ul style="list-style-type: none"> <li>▪ saturated fat:               <ul style="list-style-type: none"> <li>• butter</li> <li>• suet</li> </ul> </li> <li>▪ unsaturated fat:               <ul style="list-style-type: none"> <li>• monounsaturated – olive oil, nuts, oily fish</li> <li>• polyunsaturated – oily fish, seeds, walnuts, avocados</li> </ul> </li> </ul> </li> </ul> </li> <li>• functions of fats:       <ul style="list-style-type: none"> <li>○ provide a good energy source</li> <li>○ form the structure of some cells</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ insulate the body against the cold</li> <li>○ protect vital organs such as the heart, liver and kidney</li> <li>○ provide a good source of vitamin D</li> <li>● sources of essential fatty acids omega 3 and 6 (essential to human health, but cannot be made by the body):             <ul style="list-style-type: none"> <li>○ omega 3:                 <ul style="list-style-type: none"> <li>▪ oily fish</li> <li>▪ seeds</li> <li>▪ walnut oil</li> <li>▪ green leafy vegetables</li> </ul> </li> <li>○ omega 6:                 <ul style="list-style-type: none"> <li>▪ sunflower oil</li> <li>▪ corn oil</li> <li>▪ fruit and vegetables</li> <li>▪ grains</li> <li>▪ poultry</li> <li>▪ seeds</li> </ul> </li> </ul> </li> <li>● protein:             <ul style="list-style-type: none"> <li>○ made up of essential amino acids</li> <li>○ divided into high biological value (HBV) or low biological value (LBV)</li> <li>○ HBV proteins:                 <ul style="list-style-type: none"> <li>▪ contain all essential amino acids</li> </ul> </li> <li>○ LBV proteins contain:                 <ul style="list-style-type: none"> <li>▪ only some of the essential amino acids</li> <li>▪ complementation – when sources of LBV proteins are combined, all essential amino acids are available</li> </ul> </li> <li>○ the learner will also understand that proteins have different biological values depending upon their composition</li> </ul> </li> <li>● sources of protein:             <ul style="list-style-type: none"> <li>○ HBV:                 <ul style="list-style-type: none"> <li>▪ meat</li> <li>▪ fish</li> <li>▪ eggs</li> <li>▪ dairy products</li> </ul> </li> <li>○ LBV:                 <ul style="list-style-type: none"> <li>▪ pulses</li> <li>▪ rice</li> <li>▪ wheat</li> <li>▪ nuts and seeds</li> </ul> </li> </ul> </li> <li>● functions of proteins:             <ul style="list-style-type: none"> <li>○ needed for growth, maintenance and repair</li> <li>○ provide structure for all cells in the body, enzymes, and carrier molecules</li> </ul> </li> </ul>
<b>3.3.2</b>	<b>Sources and functions of micronutrients</b>
	<p>The learner will understand the sources and functions of micronutrients (vitamins and minerals). The learner will also understand how the functions of the vitamins contained in the food source may be impacted by the cooking method used:</p> <ul style="list-style-type: none"> <li>● vitamin A (fat soluble):             <ul style="list-style-type: none"> <li>○ can be lost when vegetables that are rich in vitamin A are cooked using methods where fat is added</li> <li>○ loss can be reduced if some of the juices and fat are used</li> </ul> </li> </ul>

- sources of vitamin A:
  - liver
  - dairy products
  - oily fish
  - carrots
  - green leafy vegetables
  - oranges
  - tomatoes
- functions of vitamin A:
  - aid the digestive system
  - aid healthy skin
  - increase resistance to infection
  - support growth in children (bones and teeth)
- vitamin B complex (water soluble): the B complex is made up of a group of vitamins that carry out specific functions in the body; the main vitamins that make up the complex are:
  - sources of vitamin B1 (thiamine):
    - wheat
    - brown rice
    - yeast
    - meat
    - eggs
    - dairy products
    - beans
    - nuts and seeds
    - seafood
  - functions of vitamin B1:
    - aids release of energy from carbohydrates
    - supports nerve function
    - aids growth
  - sources of vitamin B2 (riboflavin):
    - kidney
    - liver
    - meat and poultry
    - milk
    - green vegetables
    - salmon
  - functions of vitamin B2:
    - aids release of energy from carbohydrates
    - aids growth
    - keeps skin healthy
  - sources of vitamin B3 (niacin):
    - meat and poultry
    - cereals and grains
    - dairy products
    - lentils
  - functions of vitamin B3:
    - aids release of energy from carbohydrates
    - essential for healthy skin and nerves
    - lowers levels of fat in the blood

	<ul style="list-style-type: none"> <li>○ sources of vitamin B6 (pyridoxine):             <ul style="list-style-type: none"> <li>▪ found in a wide range of foods</li> <li>▪ meat and poultry</li> <li>▪ cereals and grains</li> </ul> </li> <li>○ function of vitamin B6:             <ul style="list-style-type: none"> <li>▪ aids release of energy from carbohydrates</li> </ul> </li> <li>○ sources of vitamin B9 (folate or folic acid):             <ul style="list-style-type: none"> <li>▪ liver</li> <li>▪ kidney</li> <li>▪ wholegrain cereals</li> <li>▪ pulses</li> <li>▪ salmon</li> <li>▪ spinach</li> </ul> </li> <li>○ functions of vitamin B9:             <ul style="list-style-type: none"> <li>▪ helps the body to use proteins</li> <li>▪ essential for the formation of DNA, especially the cells that make red blood cells</li> </ul> </li> <li>○ sources of vitamin B12 (cyanocobalamin):             <ul style="list-style-type: none"> <li>▪ meat</li> <li>▪ fish</li> <li>▪ dairy products</li> <li>▪ eggs</li> </ul> </li> <li>○ functions of vitamin B12:             <ul style="list-style-type: none"> <li>▪ forms a protective layer to protect nerve cells</li> <li>▪ supports production of nerve cells</li> </ul> </li> <li>● vitamin C (water soluble):             <ul style="list-style-type: none"> <li>○ sources of vitamin C:                 <ul style="list-style-type: none"> <li>▪ citrus fruit</li> <li>▪ red fruit</li> <li>▪ green leafy vegetables</li> </ul> </li> <li>○ functions of vitamin C:                 <ul style="list-style-type: none"> <li>▪ acts as an antioxidant</li> <li>▪ is important for the normal structure and functioning of body tissue</li> <li>▪ helps the body to absorb iron from non-meat sources, such as vegetables</li> <li>▪ helps wounds, cuts and abrasions to heal</li> </ul> </li> </ul> </li> <li>● vitamin D (fat soluble):             <ul style="list-style-type: none"> <li>○ sources of vitamin D:                 <ul style="list-style-type: none"> <li>▪ dairy products</li> <li>▪ eggs</li> <li>▪ liver</li> <li>▪ oily fish</li> </ul> </li> <li>○ functions of vitamin D:                 <ul style="list-style-type: none"> <li>▪ absorbs calcium and phosphorous for healthy bones</li> <li>▪ improves muscle strength</li> <li>▪ acts as an antioxidant</li> </ul> </li> </ul> </li> </ul>
<p><b>3.3.3</b></p>	<p><b>Sources and functions of minerals</b></p>
	<p>The learner will understand the sources and functions of minerals:</p> <ul style="list-style-type: none"> <li>● sources of iron:</li> </ul>

	<ul style="list-style-type: none"> <li>○ red meat and offal</li> <li>○ green leafy vegetables</li> <li>○ egg yolks</li> <li>○ dried apricots</li> <li>○ lentils</li> <li>● functions of iron:             <ul style="list-style-type: none"> <li>○ carries oxygen around the body</li> <li>○ needed for healthy red blood cells</li> <li>○ helps energy metabolism</li> <li>○ helps maintain a healthy immune system</li> </ul> </li> <li>● sources of calcium:             <ul style="list-style-type: none"> <li>○ dairy products</li> <li>○ oily fish</li> <li>○ nuts and seeds</li> </ul> </li> <li>● functions of calcium:             <ul style="list-style-type: none"> <li>○ works with vitamin D, phosphorous and vitamin C to develop strong teeth and bones in babies and children</li> <li>○ maintains strong teeth and bones in adults</li> <li>○ helps muscles to function correctly</li> </ul> </li> </ul>
<b>3.3.4</b>	<b>Sources and functions of water</b>
	<p>The learner will understand the sources and function of water:</p> <ul style="list-style-type: none"> <li>● sources of water:             <ul style="list-style-type: none"> <li>○ found in virtually all foods, from very small to significant amounts</li> </ul> </li> <li>● functions of water:             <ul style="list-style-type: none"> <li>○ regulates body temperature at 37°C</li> <li>○ helps eliminate waste products</li> <li>○ helps the body to absorb nutrients</li> <li>○ transports nutrients, oxygen, and carbon dioxide around the body</li> <li>○ recommended intake is 1.75–2 litres every day to prevent dehydration</li> </ul> </li> </ul>
<b>3.4</b>	<b>Nutrient imbalances</b>
	<p>The learner will understand the impact of an unbalanced diet on the body from a lack or excess of key nutrients when food is prepared and cooked:</p> <ul style="list-style-type: none"> <li>● protein:             <ul style="list-style-type: none"> <li>○ lack:                 <ul style="list-style-type: none"> <li>▪ muscle wastage</li> <li>▪ poor growth in children</li> <li>▪ cuts are slow to heal</li> <li>▪ fluid build-up under the skin</li> <li>▪ kwashiorkor (a severe protein deficiency)</li> </ul> </li> <li>○ excess:                 <ul style="list-style-type: none"> <li>▪ strain on the kidneys</li> <li>▪ excess is converted to fat</li> </ul> </li> </ul> </li> <li>● carbohydrates:             <ul style="list-style-type: none"> <li>○ lack:                 <ul style="list-style-type: none"> <li>▪ lack of energy</li> <li>▪ protein used as energy source</li> </ul> </li> <li>○ excess:                 <ul style="list-style-type: none"> <li>▪ converted to fat, causing weight gain</li> </ul> </li> </ul> </li> <li>● fat:</li> </ul>

- lack:
  - lose weight
  - feel cold
  - can lack essential fatty acids (omega 3)
- excess:
  - become overweight
  - high cholesterol levels, increasing risk of heart disease and stroke
- vitamin A:
  - lack:
    - poor night vision
    - difficulty fighting infections
    - poor growth in children
  - excess:
    - is poisonous and can build up in the liver
    - animal sources, such as liver, can cause birth defects in babies
- vitamin B1:
  - lack:
    - slow growth and development
    - weight loss
    - weakness and pains in limbs
    - beriberi is a severe deficiency disease leading to muscle wastage
  - excess:
    - no harm caused
- vitamin B2:
  - lack:
    - dryness of mouth
    - sensitivity to sunlight
    - poor growth
  - excess:
    - no harm caused
- vitamin B3:
  - lack:
    - insomnia
    - severe deficiency leads to pellagra symptoms including dementia, diarrhoea, and dermatitis
  - excess:
    - no harm caused
- vitamin B6:
  - lack:
    - headaches
    - skin problems
    - aches and pains
    - feeling of weakness
  - excess:
    - unlikely through food, but too many supplements can cause a loss of feeling in limbs
- vitamin B9:
  - lack:
    - tiredness
    - anaemia

	<ul style="list-style-type: none"> <li> <ul style="list-style-type: none"> <li>▪ insufficient during pregnancy can result in spinal deformation, such as spina bifida</li> </ul> </li> <li>○ excess:           <ul style="list-style-type: none"> <li>▪ taking too much can hide a deficiency of vitamin B12</li> </ul> </li> <li>• vitamin B12:           <ul style="list-style-type: none"> <li>○ lack:               <ul style="list-style-type: none"> <li>▪ tiredness</li> <li>▪ anaemia</li> <li>▪ muscle fatigue</li> <li>▪ depression</li> <li>▪ memory problems</li> </ul> </li> <li>○ excess:               <ul style="list-style-type: none"> <li>▪ no harm caused</li> </ul> </li> </ul> </li> <li>• vitamin C:           <ul style="list-style-type: none"> <li>○ lack:               <ul style="list-style-type: none"> <li>▪ poor skin health</li> <li>▪ bleeding gums</li> <li>▪ anaemia</li> <li>▪ scurvy</li> </ul> </li> <li>○ excess:               <ul style="list-style-type: none"> <li>▪ excreted by the body – not stored</li> <li>▪ no harm caused, but too many vitamin C supplements can cause diarrhoea</li> </ul> </li> </ul> </li> <li>• vitamin D:           <ul style="list-style-type: none"> <li>○ lack:               <ul style="list-style-type: none"> <li>▪ poor calcium absorption leading to rickets and osteoporosis</li> </ul> </li> <li>○ excess:               <ul style="list-style-type: none"> <li>▪ no harm caused</li> </ul> </li> </ul> </li> <li>• iron:           <ul style="list-style-type: none"> <li>○ lack:               <ul style="list-style-type: none"> <li>▪ anaemia</li> <li>▪ pale complexion</li> <li>▪ weak and splitting nails</li> </ul> </li> <li>○ excess:               <ul style="list-style-type: none"> <li>▪ over 20mg per day can cause stomach pains and nausea</li> </ul> </li> </ul> </li> <li>• calcium:           <ul style="list-style-type: none"> <li>○ lack:               <ul style="list-style-type: none"> <li>▪ poor bone structure</li> <li>▪ rickets</li> <li>▪ osteoporosis</li> <li>▪ blood does not clot properly</li> </ul> </li> <li>○ excess:               <ul style="list-style-type: none"> <li>▪ too many supplements can cause constipation</li> </ul> </li> </ul> </li> <li>• water:           <ul style="list-style-type: none"> <li>○ lack:               <ul style="list-style-type: none"> <li>▪ dehydration</li> <li>▪ headaches</li> <li>▪ nausea</li> <li>▪ weakness</li> <li>▪ change in blood pressure</li> </ul> </li> <li>○ excess:               <ul style="list-style-type: none"> <li>▪ excessive sweating</li> </ul> </li> </ul> </li> </ul>
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	<ul style="list-style-type: none"> <li>▪ rapid breathing</li> <li>▪ fatigue</li> <li>▪ headaches</li> <li>▪ nausea</li> <li>▪ reduced salt in the body</li> </ul>
<b>3.5</b>	<b>Fibre</b>
	<p>The learner will understand the sources and functions of fibre and the impact of fibre as part of a balanced diet:</p> <ul style="list-style-type: none"> <li>• fibre – a non-starch polysaccharide (NSP) which cannot be digested by the body</li> <li>• sources of fibre (soluble): <ul style="list-style-type: none"> <li>○ pulses</li> <li>○ most fruit and vegetables where skin is left on</li> </ul> </li> <li>• functions of soluble fibre: <ul style="list-style-type: none"> <li>○ slows the digestive process</li> <li>○ slows the absorption of carbohydrates</li> <li>○ helps regulate blood sugar levels</li> <li>○ helps control blood cholesterol levels</li> </ul> </li> <li>• sources of insoluble fibre: <ul style="list-style-type: none"> <li>○ wholegrain cereals</li> <li>○ wholemeal bread</li> <li>○ fibrous fruits</li> </ul> </li> <li>• functions of insoluble fibre: <ul style="list-style-type: none"> <li>○ provides bulk which helps move waste through the digestive system</li> <li>○ helps to prevent constipation</li> <li>○ helps to prevent serious diseases such as bowel cancer and diverticular disease</li> </ul> </li> <li>• effects of not having sufficient fibre in the diet: <ul style="list-style-type: none"> <li>○ constipation</li> <li>○ bloating</li> <li>○ bowel disorders</li> </ul> </li> </ul>
<b>3.6</b>	<b>Nutritional requirements for different groups of people</b>
	<p>The learner will understand the nutritional requirements for different groups of people, how this may change as they grow older, and how their level of activity impacts on their nutritional needs:</p> <ul style="list-style-type: none"> <li>• babies (age 0–6 months): <ul style="list-style-type: none"> <li>○ all nutrients required are contained in breast or formula milk</li> </ul> </li> <li>• toddlers (age 2–4 years) – rapid stage of development: <ul style="list-style-type: none"> <li>○ protein for growth</li> <li>○ fats and carbohydrates for energy</li> <li>○ need fat soluble vitamins</li> <li>○ calcium and vitamin D for strong bones and teeth</li> <li>○ iron for healthy red cell development</li> <li>○ vitamin C to aid the absorption of iron and encourage healthy skin</li> <li>○ vitamin B to aid digestion, for development of the nervous system and for muscle growth</li> </ul> </li> <li>• children (age 5–12 years) – stage of development with rapid growth: <ul style="list-style-type: none"> <li>○ protein for growth</li> <li>○ carbohydrates for energy</li> <li>○ fibre to aid digestion</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ fat as a source of energy and to protect vital organs and provide a source of vitamins A and D</li> <li>● adolescents (age 13–19 years) – period of growth spurts and changes to the body:             <ul style="list-style-type: none"> <li>○ protein needed for growth and repair</li> <li>○ calcium for strong bones and teeth</li> <li>○ iron particularly for girls of menstrual age</li> </ul> </li> <li>● adults (age 20–65 years):             <ul style="list-style-type: none"> <li>○ body needs nutrients for maintenance and to ensure it functions correctly</li> <li>○ balanced diet is key to prevent weight gain or fluctuation</li> </ul> </li> <li>● older people (age 65+ years):             <ul style="list-style-type: none"> <li>○ calcium to prevent osteoporosis</li> <li>○ sufficient water and fibre to prevent constipation and bowel disorders</li> <li>○ iron to prevent anaemia</li> <li>○ vitamin C to aid the absorption of iron</li> <li>○ less fat and sugar as physical activity is reduced</li> <li>○ less salt to reduce blood pressure and risk of heart disease</li> </ul> </li> </ul>
<b>3.7</b>	<b>Food-related health conditions</b>
	<p>The learner will understand what food is unsuitable or should be avoided and which foods should be included in the diet for specific health conditions, intolerances, and allergies. For the most common allergies, the learner will also understand which foods cause a reaction and what alternative ingredients/foods are recommended.</p>
<b>3.7.1</b>	<b>Health conditions</b>
	<p>The learner will understand what food is unsuitable or should be avoided and which foods should be included in the diet for specific health conditions:</p> <ul style="list-style-type: none"> <li>● coronary heart disease:             <ul style="list-style-type: none"> <li>○ a common but serious heart condition, where the blood vessels supplying blood to the heart are blocked or narrowed</li> <li>○ foods a person with coronary heart disease should avoid:                 <ul style="list-style-type: none"> <li>▪ saturated fats</li> <li>▪ fatty meat</li> <li>▪ cakes and pastries</li> <li>▪ cream</li> <li>▪ foods high in salt</li> </ul> </li> <li>○ to lower the risk of coronary heart disease:                 <ul style="list-style-type: none"> <li>▪ reduce saturated fat intake</li> <li>▪ reduce salt intake</li> <li>▪ increase fruit and vegetable intake</li> <li>▪ increase fibre intake</li> <li>▪ choose healthier methods of cookery, such as grilling, poaching and baking</li> </ul> </li> </ul> </li> <li>● type 2 diabetes:             <ul style="list-style-type: none"> <li>○ a condition that causes too much sugar (glucose) in the blood known as hyperglycaemia</li> <li>○ high blood pressure or raised cholesterol levels</li> <li>○ symptoms include:                 <ul style="list-style-type: none"> <li>▪ feeling very thirsty</li> <li>▪ blurred vision</li> <li>▪ itching of the skin</li> <li>▪ slow healing of cuts and wounds</li> </ul> </li> <li>○ the following foods should be included in the diet to prevent or stabilise diabetes:                 <ul style="list-style-type: none"> <li>▪ carbohydrates with high fibre content</li> </ul> </li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>▪ reduced salt intake</li> <li>▪ lean sources of protein</li> <li>▪ less red and processed meat</li> <li>▪ sugar free sweeteners</li> <li>▪ low fat milks</li> <li>▪ olive oil</li> <li>• coeliac disease: <ul style="list-style-type: none"> <li>○ immune system attacks and damages the gut when gluten is eaten</li> <li>○ body finds it more difficult to absorb other nutrients</li> <li>○ can experience symptoms of diarrhoea, stomach aches, bloating, weight loss and loss of energy</li> <li>○ products a coeliac should avoid: <ul style="list-style-type: none"> <li>▪ bread</li> <li>▪ pasta</li> <li>▪ cereals</li> <li>▪ biscuits, cakes and pastries</li> </ul> </li> <li>○ alternative products available for a coeliac: <ul style="list-style-type: none"> <li>▪ quinoa</li> <li>▪ rice</li> <li>▪ potatoes</li> <li>▪ nuts and seeds</li> <li>▪ oats</li> </ul> </li> </ul> </li> </ul>
<b>3.7.2</b>	<b>Intolerances</b>
	<p>The learner will understand what food is unsuitable or should be avoided and which foods should be included in the diet for specific intolerances:</p> <ul style="list-style-type: none"> <li>• lactose intolerance – a person who is lactose intolerant: <ul style="list-style-type: none"> <li>○ cannot digest lactose (the sugar is found in milk)</li> </ul> </li> <li>• products a lactose intolerant person should avoid: <ul style="list-style-type: none"> <li>○ dairy products</li> </ul> </li> <li>• lactose free alternative products: <ul style="list-style-type: none"> <li>○ soya milk</li> <li>○ milk derived from nuts</li> <li>○ oat milk</li> <li>○ rice milk</li> </ul> </li> <li>• wheat intolerance – a person who is wheat intolerant: <ul style="list-style-type: none"> <li>○ their body is unable to break down wheat for it to be absorbed into the digestive system</li> <li>○ can experience symptoms of bloating, flatulence, and diarrhoea</li> </ul> </li> <li>• products a wheat intolerant person should avoid: <ul style="list-style-type: none"> <li>○ bread</li> <li>○ couscous</li> <li>○ flour</li> <li>○ pasta</li> <li>○ spelt</li> <li>○ semolina</li> </ul> </li> <li>• wheat free alternative products: <ul style="list-style-type: none"> <li>○ rice</li> <li>○ oats</li> <li>○ corn</li> <li>○ rye</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ barley</li> </ul>
<b>3.7.3</b>	<b>Allergies</b>
	<p>The learner will understand what food is unsuitable or should be avoided and which foods should be included in the diet for specific allergies. For the most common allergies, the learner will also understand which foods cause a reaction and what alternative ingredients/foods are recommended:</p> <ul style="list-style-type: none"> <li>• allergies – an adverse physical reaction to allergens found in food: <ul style="list-style-type: none"> <li>○ nut allergies – the most common nuts to cause a reaction are peanuts and tree nuts such as almonds, walnuts, cashews and pine nuts</li> <li>○ a person who has a nut allergy: <ul style="list-style-type: none"> <li>▪ can experience a minor to a severe reaction which can be life threatening</li> <li>▪ can experience: <ul style="list-style-type: none"> <li>• raised red bumps on the skin</li> <li>• runny nose</li> <li>• cramps</li> <li>• swelling of the lips and eyelids</li> <li>• nausea or vomiting</li> </ul> </li> <li>▪ severe reaction is anaphylaxis: <ul style="list-style-type: none"> <li>• usually appears very quickly</li> <li>• throat swells preventing breathing</li> <li>• people with a severe reaction carry an EpiPen to provide adrenaline to reduce the allergic reaction</li> </ul> </li> </ul> </li> <li>○ products – people with a nut allergy should always read food labels and avoid any product containing nuts, or products processed in locations where nuts are present</li> <li>○ the following products can be available for a person with a nut allergy as an alternative because they can be substituted in recipes: <ul style="list-style-type: none"> <li>▪ pumpkin seeds</li> <li>▪ sunflower seeds</li> <li>▪ chickpeas</li> </ul> </li> </ul> </li> </ul>
<b>3.8</b>	<b>Nutritional information on food labels</b>
	<p>The learner will understand the symbols on food labels and the purpose of each of these:</p> <ul style="list-style-type: none"> <li>• the Food Standards Agency developed the traffic light system that informs the consumer about the nutritional information on food labels, to help them make an informed choice about: <ul style="list-style-type: none"> <li>○ fat</li> <li>○ saturated fat</li> <li>○ salt</li> <li>○ sugar</li> <li>○ energy content</li> </ul> </li> <li>• red – high amounts present</li> <li>• amber – medium amounts present</li> <li>• green – low amounts present</li> <li>• reference intake (RI) – the maximum number of calories and nutrients to be consumed on an average day</li> <li>• vegetarian and vegan symbol – the V label is a registered symbol for labelling vegan and vegetarian products, which appears on packaging</li> <li>• allergy advice – there are 14 known allergens that need to be included on food labels by law:</li> </ul>

	<ul style="list-style-type: none"><li>○ celery</li><li>○ cereals containing gluten (wheat, rye, barley and oats)</li><li>○ crustaceans (prawns, crab and lobster)</li><li>○ eggs</li><li>○ fish</li><li>○ lupin</li><li>○ milk</li><li>○ molluscs (mussels, whelks and snails)</li><li>○ mustard</li><li>○ nuts</li><li>○ peanuts</li><li>○ sesame seeds</li><li>○ sulphur dioxide or sulphites (if levels are more than 10mg per kilogram or litre)</li></ul>
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#### 4. Factors affecting food choice

The learner will understand that there are many factors that influence what we choose to eat when food is prepared and cooked. They include social factors, the environmental impact and seasonal constraints.	
<b>4.1</b>	<b>Social factors</b>
	<p>The learner will understand the range of social factors that determine food choices and understand how food choices may be changed to maintain a balanced diet:</p> <ul style="list-style-type: none"> <li>• locality: <ul style="list-style-type: none"> <li>○ urban</li> <li>○ rural</li> </ul> </li> <li>• accessibility: <ul style="list-style-type: none"> <li>○ closeness to shops</li> <li>○ transport</li> <li>○ access to internet</li> </ul> </li> <li>• personal: <ul style="list-style-type: none"> <li>○ upbringing</li> <li>○ religious influences</li> <li>○ ethical beliefs</li> <li>○ choice: <ul style="list-style-type: none"> <li>▪ vegetarian</li> <li>▪ vegan</li> <li>▪ Fairtrade</li> </ul> </li> <li>○ experience of other cultures</li> <li>○ dietary or medical requirements</li> <li>○ allergies</li> </ul> </li> <li>• economic: <ul style="list-style-type: none"> <li>○ availability</li> <li>○ variety</li> <li>○ choice of brand</li> <li>○ income</li> <li>○ nutritional composition</li> </ul> </li> </ul>
<b>4.2</b>	<b>Environmental factors</b>
	<p>The learner will understand environmental factors and how they affect food choices and the impact on the environment:</p> <ul style="list-style-type: none"> <li>• organic: <ul style="list-style-type: none"> <li>○ lack of pesticide and fertiliser usage</li> <li>○ cost</li> <li>○ no use of hormones</li> <li>○ better welfare standards</li> </ul> </li> <li>• carbon footprint: <ul style="list-style-type: none"> <li>○ emissions</li> <li>○ food miles</li> <li>○ cost</li> <li>○ packaging</li> </ul> </li> <li>• weather: <ul style="list-style-type: none"> <li>○ availability of product</li> <li>○ cost linked to supply and demand</li> </ul> </li> <li>• pesticides:</li> </ul>

	<ul style="list-style-type: none"> <li>○ maximise the amount of produce</li> <li>○ kill insects and pests</li> <li>○ run-off pollutes rivers</li> <li>○ use linked to some diseases</li> <li>● food waste:             <ul style="list-style-type: none"> <li>○ managing food within sell by dates</li> <li>○ supermarket offers</li> <li>○ shelf life</li> <li>○ discarding food as it does not meet standards (shape, colour)</li> </ul> </li> </ul>
<b>4.3</b>	<b>Seasonality</b>
	<p>The learner will understand how the seasons affect food availability, types of seasonal fruit and vegetables grown in the UK, and the benefits of using seasonal produce during each season:</p> <ul style="list-style-type: none"> <li>● spring</li> <li>● summer</li> <li>● autumn</li> <li>● winter</li> <li>● benefits of using seasonal foods:             <ul style="list-style-type: none"> <li>○ nutritional value:                 <ul style="list-style-type: none"> <li>▪ higher in nutritional value</li> <li>▪ some antioxidants such as vitamin C will rapidly decline when stored for periods of time</li> </ul> </li> <li>○ flavour:                 <ul style="list-style-type: none"> <li>▪ seasonal foods are fresher and taste better, sweeter and are fully ripe</li> </ul> </li> <li>○ availability:                 <ul style="list-style-type: none"> <li>▪ produce in season is plentiful and more readily available</li> </ul> </li> <li>○ cost:                 <ul style="list-style-type: none"> <li>▪ food in season is generally cheaper</li> <li>▪ where produce is local, availability is improved as food miles are reduced, making it cheaper</li> </ul> </li> <li>○ reduced food miles:                 <ul style="list-style-type: none"> <li>▪ if seasonal fruit is eaten in the country of origin or locally, food miles are significantly reduced:                     <ul style="list-style-type: none"> <li>● reduction in transport</li> <li>● labour costs</li> </ul> </li> </ul> </li> </ul> </li> </ul>

## 5. Food preparation, cooking skills and techniques

<p>The learner will understand the stages and purpose of a recipe when food is prepared and cooked, and the importance of practice and reflection and how this relates to a successful outcome that can be replicated over time. The learner will understand the function of ingredients and the food preparation, cooking skills and techniques used. The learner will also understand how to present completed dishes, developing garnishing and decorative techniques.</p>	
<b>5.1</b>	<b>Key stages and the purpose of a recipe</b>
	<p>The learner will understand the key stages of a recipe and factors that impact on the recipe:</p> <ul style="list-style-type: none"> <li>• key stages: <ul style="list-style-type: none"> <li>○ ingredients</li> <li>○ equipment needed</li> <li>○ sequence</li> <li>○ timing</li> <li>○ method</li> <li>○ oven times</li> <li>○ oven temperature</li> <li>○ skills</li> </ul> </li> <li>• factors that impact on a recipe: <ul style="list-style-type: none"> <li>○ time</li> <li>○ waste</li> <li>○ accuracy</li> <li>○ preparation</li> <li>○ consistency of practice</li> <li>○ ability to successfully replicate the dish over time</li> <li>○ cost</li> </ul> </li> </ul>
<b>5.2</b>	<b>The characteristics and function of ingredients</b>
	<p>The learner will understand how ingredients have different characteristics and functions in a recipe when food is prepared and cooked. The learner will understand the different working characteristics of ingredients and the processes required to achieve uniform and consistent results each time food is prepared and cooked, and how to manipulate ingredients and processes when things go wrong to achieve a successful outcome:</p> <ul style="list-style-type: none"> <li>• aeration – the addition of air to a mixture</li> <li>• thickening (gelatinisation) – starch granules heated in a liquid absorb the liquid and thicken the mix</li> <li>• shortening – fats or oils coat flour and prevent gluten forming</li> <li>• setting – combining ingredients with a setting agent</li> <li>• aesthetics – the appearance of the dish that is pleasing to the eye</li> <li>• taste – appropriate seasoning and the combination of flavours</li> </ul>
<b>5.3</b>	<b>Preparation skills</b>
	<p>The learner will understand the need to work in a safe, hygienic manner when carrying out a range of preparation skills needed to complete a recipe, and how they may impact upon a recipe when food is prepared and cooked. The learner will also understand the importance of honing their skills by practising to achieve consistent results:</p> <ul style="list-style-type: none"> <li>• weighing and measuring: <ul style="list-style-type: none"> <li>○ importance of accuracy</li> <li>○ ratio of ingredients</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ impact on the finished dish: <ul style="list-style-type: none"> <li>▪ taste</li> <li>▪ texture</li> <li>▪ edibility</li> <li>▪ appearance</li> <li>▪ consistency and uniformity of product</li> </ul> </li> <li>● peeling: <ul style="list-style-type: none"> <li>○ minimal amount of skin removed</li> <li>○ impact on the finished dish: <ul style="list-style-type: none"> <li>▪ nutritional content</li> <li>▪ taste</li> <li>▪ appearance</li> </ul> </li> </ul> </li> <li>● knife skills: <ul style="list-style-type: none"> <li>○ choice of knife appropriate to the task when preparing and cooking vegetables, herbs, fruit, fish, meat and dessert items</li> <li>○ cut into a variety of sizes and shapes</li> <li>○ filleting fish</li> <li>○ slicing, dicing and trimming meats</li> <li>○ mixing, shaping and removing items from a tray</li> </ul> </li> <li>● preparation of tins: <ul style="list-style-type: none"> <li>○ lining</li> <li>○ greasing</li> <li>○ flouring</li> </ul> </li> </ul>
<b>5.4</b>	<b>Cooking techniques</b>
	<p>The learner will understand a range of different cooking techniques and their application and impact on a recipe:</p> <ul style="list-style-type: none"> <li>● creaming: <ul style="list-style-type: none"> <li>○ beating butter and sugar together to form a light and fluffy texture</li> <li>○ incorporating sufficient air</li> </ul> </li> <li>● rubbing-in: <ul style="list-style-type: none"> <li>○ rubbing together flour and fat using the fingertips until the mixture resembles breadcrumbs</li> </ul> </li> <li>● whisking: <ul style="list-style-type: none"> <li>○ blending ingredients until smooth</li> <li>○ incorporating sufficient air for meringues, sponges and batters</li> </ul> </li> <li>● kneading: <ul style="list-style-type: none"> <li>○ in the making of bread or dough, combining flour and water together so that strands of gluten are formed, which gives bread its texture</li> </ul> </li> <li>● grating: <ul style="list-style-type: none"> <li>○ creating small pieces of food by rubbing the food against a grater used for cheese, vegetables and fruit</li> </ul> </li> <li>● marinading: <ul style="list-style-type: none"> <li>○ soaking in a blend of oil, acid, spices and herbs to tenderise and flavour meat, fish or alternatives prior to cooking</li> </ul> </li> <li>● basting: <ul style="list-style-type: none"> <li>○ cooking meat with either its own juices or a preparation such as a sauce or marinade; the meat is left to cook then periodically coated with the juice</li> </ul> </li> <li>● blanching: <ul style="list-style-type: none"> <li>○ quickly or partially cooking vegetables in boiling water then placing in cold water to stop the cooking process</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>• reducing: <ul style="list-style-type: none"> <li>○ thickening and intensifying the flavour of a liquid by rapidly boiling the contents in an uncovered pan to evaporate excess liquid; this is used generally for soups and sauces</li> </ul> </li> </ul>
<b>5.5</b>	<b>Cooking methods</b>
	<p>The learner will understand a range of different cooking methods, their function and the impact on the nutritional content when cooking food. The learner will also understand the most suitable ingredients for the methods chosen:</p> <ul style="list-style-type: none"> <li>• simmering</li> <li>• boiling</li> <li>• stir frying</li> <li>• grilling</li> <li>• shallow frying</li> <li>• deep frying</li> <li>• microwaving</li> <li>• roasting</li> <li>• steaming</li> <li>• poaching</li> <li>• sautéing</li> <li>• baking</li> <li>• stewing</li> <li>• braising</li> <li>• pot roasting</li> <li>• en papillote (paper bag cooking)</li> <li>• casseroles</li> </ul>
<b>5.6</b>	<b>Presentation skills</b>
	<p>The learner will understand a range of presentation skills, garnishing, decorating and choosing and dressing a serving plate or dish, and how all these impact on the success of a completed dish:</p> <ul style="list-style-type: none"> <li>• choice of plate</li> <li>• choice of utensils</li> <li>• design</li> <li>• colour</li> <li>• texture</li> <li>• flavour</li> <li>• garnish</li> <li>• decoration</li> </ul>

## 6. Recipe amendment, development and evaluation

<p>The learner will understand the importance of developing their palate to ensure their amendments show an appropriate combination and balance of ingredients and flavours which they adjust through seasoning and taste to ensure a pleasing, edible dish. The learner will understand how a recipe can be amended, developed, and evaluated to meet the nutritional needs of individuals, occasion and specific groups of people when food is prepared and cooked.</p>	
<b>6.1</b>	<b>Recipe amendment</b>
	<p>The learner will understand that recipe amendment may take into account:</p> <ul style="list-style-type: none"> <li>• factors affecting food choice: <ul style="list-style-type: none"> <li>○ social</li> <li>○ environmental</li> <li>○ seasonality</li> <li>○ individual characteristics of ingredients and altered characteristics when paired with other ingredients</li> </ul> </li> <li>• food-related health conditions</li> <li>• occasion</li> <li>• budget</li> <li>• sensory factors</li> </ul>
<b>6.1.1</b>	<b>Amending and developing recipes</b>
	<p>The learner will understand how to amend and develop recipes when food is prepared and cooked, using a range of ingredients for:</p> <ul style="list-style-type: none"> <li>• different groups of people</li> <li>• activity level</li> <li>• food-related health conditions</li> <li>• factors affecting food choice: <ul style="list-style-type: none"> <li>○ social</li> <li>○ environmental</li> <li>○ seasonality</li> </ul> </li> </ul>
<b>6.2</b>	<b>Evaluating completed dishes</b>
	<p>The learner will understand how amended dishes are evaluated and the factors which must be considered:</p> <ul style="list-style-type: none"> <li>• choice of alternative ingredients and the impact of their individual characteristics on: <ul style="list-style-type: none"> <li>○ taste</li> <li>○ appearance/presentation</li> <li>○ smell</li> <li>○ texture</li> </ul> </li> <li>• nutritional content of completed dishes</li> <li>• final presentation of cooked dishes</li> <li>• how the completed dishes could be improved</li> </ul>

## 7. Menu and action planning for completed dishes

<p>The learner will understand the requirements of a customer brief, menus, and action planning to prepare and cook dishes. The learner will understand how to evaluate the planning stages and the success of the completed dishes. The learner will also understand how well the customer brief was met and what improvements could be made.</p>	
<b>7.1</b>	<b>Interpreting a customer brief</b>
	<p>The learner will understand the purpose of a customer brief:</p> <ul style="list-style-type: none"> <li>• specific requirements to determine: <ul style="list-style-type: none"> <li>○ theme of the menu</li> <li>○ number of courses</li> <li>○ number of dishes required</li> <li>○ number of people being catered for</li> <li>○ budget</li> <li>○ nutritional content</li> <li>○ food-related health conditions</li> <li>○ range of preparation, cooking methods and techniques</li> <li>○ factors affecting food choice</li> <li>○ sensory features of chosen dishes</li> </ul> </li> <li>• selection of appropriate dishes to meet the customer's requirements</li> <li>• reasons for choice to the customer</li> </ul>
<b>7.2</b>	<b>Menu planning</b>
	<p>The learner will understand the purpose of planning a menu for customers:</p> <ul style="list-style-type: none"> <li>• considerations when planning a menu: <ul style="list-style-type: none"> <li>○ factors affecting food choice</li> <li>○ food-related health conditions</li> <li>○ nutritional value</li> <li>○ individual's skillset</li> <li>○ budget</li> </ul> </li> </ul>
<b>7.3</b>	<b>Action planning</b>
	<p>The learner will understand the stages of planning to cook dishes within a specified timeframe to meet the requirements of a customer brief:</p> <ul style="list-style-type: none"> <li>• planning: <ul style="list-style-type: none"> <li>○ safe and hygienic working practices for self and the cooking environment</li> <li>○ selection of a range of skills and techniques in the chosen menu</li> <li>○ selection of ingredients</li> <li>○ selection of equipment</li> <li>○ timeline</li> <li>○ dovetailing</li> <li>○ fridge/oven space</li> <li>○ oven temperature and timing</li> </ul> </li> </ul>

<b>7.4</b>	<b>Evaluate the planning and outcome of completed dishes against the requirements of a customer brief</b>
	<p>The learner will understand the strengths and weaknesses to consider when dishes are evaluated:</p> <ul style="list-style-type: none"><li>• how well the customer brief was met</li><li>• menu planning</li><li>• action planning</li><li>• an ability to follow recipes</li><li>• preparation, cooking methods and techniques</li><li>• an ability to demonstrate a developed palate by balancing a combination of ingredients with different characteristics, resulting in a pleasing, edible menu</li><li>• nutritional content of completed dishes</li><li>• the success of the sensory attributes:<ul style="list-style-type: none"><li>○ taste</li><li>○ texture</li><li>○ appearance/presentation</li><li>○ smell</li></ul></li><li>• how the completed dishes could be improved</li></ul>

## Teaching guidance

In this section, we provide some useful advice and suggested guidance to support the delivery of the teaching content.

Website links are provided as sources of potentially useful information for delivery/learning of this subject area. NCFE does not explicitly endorse any learning resources available on these websites. For official NCFE endorsed learning resources, please see the additional and teaching materials sections on the qualification page on the NCFE website.

### 1. Teaching guidance – health and safety relating to food, nutrition and the cooking environment

It is important that learners are given the opportunity to gain knowledge and understanding of the importance of safe preparation of food in the cooking environment, and the implications of poor food safety.

Learners need to be able to demonstrate from the outset the importance of good personal hygiene practices and ensure this is practised at every step.

Similarly, keeping themselves safe whilst working in the cooking environment needs to be introduced at the start and embedded throughout practical work. It is recommended that the HSE website is used for real examples of case studies to help the learners understand the wide range of potential risks in food preparation areas.

#### Suggested activities:

Design a poster which shows the personal hygiene standards needed in a kitchen, including protective clothing, identifying the reasons why the standards are necessary. The posters could be used as a reference point during practical lessons.

Learners could complete a hazard spotting exercise on their school kitchen (or kitchen at home) by identifying sources and types of contamination, including chemical, physical and bacterial food poisoning.

Learners could demonstrate the ways that cross-contamination could take place in a kitchen whilst preparing raw chicken, showing all potential routes.

Learners could complete a risk assessment for the prevention of food poisoning in the kitchen by identifying the range of food poisoning bacteria that may be present. This could be extended to include the risks at all stages, including shopping, storage, preparation, cooking and serving.

A template for a health and safety risk assessment could be provided for learners to identify the range of health and safety risks in their kitchen (classroom or home kitchen). This could be shared and discussed before completing one for a larger scale kitchen. This could be their school kitchen or following a visit to a local restaurant kitchen.

Learners could be asked to design a chart to show the range of cleaning methods required for a selection of both small and large equipment. They should be able to use correct terminology, including detergent, bactericide and sanitiser, and understand the importance of using hot soapy water at 60°C when other cleaning chemicals are not available.

### 1. Teaching guidance – health and safety relating to food, nutrition and the cooking environment

Use 'opening and closing checklists' during practical lessons. Learners could take turns at completing a checklist and presenting their findings to the group. They could consider:

- personal presentation
- cleanliness of all surfaces before they begin
- food checks
- correct food storage (including the temperature of fridges and freezers)
- storage of equipment
- standards of cleaning completed
- correct disposal of waste

#### Resources:

Classroom teaching pack:

- PowerPoint
- lesson plans
- scheme of work
- worksheets

#### Other resources:

Safer Food, Better Business pack/range of teaching resources:

[www.food.gov.uk/business-guidance/safer-food-better-business-teaching-resources-for-colleges](http://www.food.gov.uk/business-guidance/safer-food-better-business-teaching-resources-for-colleges)

#### Video clips:

[www.bbc.co.uk/teach/class-clips-video/design-and-technology-gcse-the-causes-of-food-poisoning/zftkjhv](http://www.bbc.co.uk/teach/class-clips-video/design-and-technology-gcse-the-causes-of-food-poisoning/zftkjhv)

#### Posters and worksheets on food safety/health and safety:

[www.twinkl.co.uk](http://www.twinkl.co.uk)

#### External visits/guest speakers:

The learners would benefit from listening to a local environmental health officer discuss how they work with local small and large businesses to keep the public safe. It may be easier to find a local restaurant chef or cook at a nearby care home, hospital, or from their school kitchen.

A visit to their own school kitchen or another local, large-scale kitchen is highly recommended, so that learners appreciate the range of equipment that is needed, as well as being able to listen to the unit supervisor explain the need for personal hygiene, correct protective clothing and their approach to all aspects of food safety and health and safety.

Additionally, practitioners may be contacted through a variety of methods and speak to learners via Google Hangouts, Microsoft Teams, or other online platforms.

**1. Teaching guidance – health and safety relating to food, nutrition and the cooking environment**

**Useful websites:**

[www.food.gov.uk](http://www.food.gov.uk)

[www.who.int](http://www.who.int)

[www.hse.gov.uk/simple-health-safety/risk](http://www.hse.gov.uk/simple-health-safety/risk)

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## 2. Teaching guidance – food legislation and food provenance

It is important that learners are given the opportunity to gain knowledge and understanding about where food comes from, and the part it plays in our daily diet in the UK. They should explore the wide range of foods now available and understand the role that processed and manufactured foods play, including their nutritional significance.

### Suggested activities:

Class discussion: where do the learners' families buy their food? Do they use local shops and markets or larger supermarkets? Encourage learners to share their ideas and the implications of their shopping, including the cost, quality, choice of foods available, and carbon footprint.

This could include a follow-up visit to a supermarket to look at the advantages and disadvantages in comparison with local, smaller shops. This could be linked to a shopping trip to buy produce and cost it for a recipe that learners are to prepare and cook, comparing the types of ingredients (for example, fresh, frozen, tinned, dried).

Class discussion: what are the different ways in which food is grown? Does all food come from an animal or a plant? Can the learners identify how some of the food is then processed ready for eating?

Class discussion: how many learners regularly eat fish and chips? Do they know where the fish comes from? How viable are our fish supplies?

Learners could be asked to choose a food commodity (for example, red meat, poultry, fish, milk, cereals, fruit and vegetables) and research how the food is produced and present this on a poster. This could be completed as a group project and extended to examine a range of issues, such as seasonality, availability, transport, organic farming, and free range.

Learners could conduct a sensory analysis of a range of different produce to compare quality across a range of processed foods, such as fresh and frozen fruit, fresh and dried pasta, and fresh/frozen/tinned vegetables. Learners could discuss the impact of the manufacturing process on colour, texture, and taste.

Learners could compare fresh and dried pasta, looking at the ingredients used in each and exploring how both types have been made. Learners could prepare their own pasta, and cook pasta dishes using both types of pasta, designing a dish to suit a vegetarian or someone who is wheat intolerant.

What makes some processed foods less healthy? Ask the learners to keep a food diary of their meals for a week and identify how many items would be classed as 'processed'. This could include any foods we are already advised to cut down on, such as ice cream, ham, sausages, crisps, mass-produced bread, breakfast cereals, biscuits, carbonated drinks, fruit-flavoured yogurts, and instant soup. Ask the learners to discuss their findings. What are the recommendations of the British Heart Foundation on processed foods?

### Resources:

Classroom teaching pack:

- PowerPoint
- lesson plans
- scheme of work

**2. Teaching guidance – food legislation and food provenance**

- worksheets

**Other resources:****Video clips:**

[www.bbc.co.uk/teach/class-clips-video/design-and-technology-gcse-food-preparation-and-nutrition/zvjh8xs](http://www.bbc.co.uk/teach/class-clips-video/design-and-technology-gcse-food-preparation-and-nutrition/zvjh8xs)

**External visits/guest speakers:**

The learner may benefit from listening to the owner of a local farm shop discuss how they source their produce and why.

Additionally, practitioners may be contacted through a variety of methods and speak to learners via Google Hangouts, Microsoft Teams, or other online platforms.

**Useful websites:**

[www.gov.uk/food-labelling-and-packaging](http://www.gov.uk/food-labelling-and-packaging)

[www.nutrition.org.uk/putting-it-into-practice/food-labelling/looking-at-labels](http://www.nutrition.org.uk/putting-it-into-practice/food-labelling/looking-at-labels)

[www.foodafactoflife.org.uk/14-16-years/where-food-comes-from/food-quality-and-assurance](http://www.foodafactoflife.org.uk/14-16-years/where-food-comes-from/food-quality-and-assurance)

[www.bbcgoodfood.com/howto/guide/what-processed-food](http://www.bbcgoodfood.com/howto/guide/what-processed-food)

[www.soilassociation.org](http://www.soilassociation.org)

[www.nutritionociety.org/publications/british-journal-nutrition](http://www.nutritionociety.org/publications/british-journal-nutrition)

[www.bda.uk.com](http://www.bda.uk.com) (British Dietetic Association)

### 3. Teaching guidance – food groups, key nutrients and a balanced diet

It is important that learners are given the opportunity to gain knowledge and understanding about each of the main food groups, the key nutrients and their main sources and functions, and the part they play in providing a balanced diet. Learners should be taught the full content so they are aware of the different dietary needs of a wide range of groups of people across age ranges.

It is important that the learners fully understand the terms ‘food groups’ and ‘nutrients’, are able to differentiate clearly between these, and are ready to apply this knowledge in both the examined assessment and non-exam assessment.

Learners need to be able to identify the 8 government healthy eating tips and should be able to apply them to different contexts of meal planning, identifying cause and effect of excess or insufficient nutrients. Learners should understand the impact a restricted diet can have on an individual and the importance of meal planning to ensure that appropriate nutrients are included.

This learning needs to be followed through to their practical sessions and the teacher should encourage this at every opportunity. There are many useful teaching resources available for this topic, and the teacher should make use of them in organising colourful displays and by providing reference sources around the classroom.

There is a lot of information to cover in this section; new technical terms, as well as names of specific nutrients and recommended amounts, and such displays can be referred to throughout lessons. For example, learners could be asked to complete a group activity to construct a display on the food and cookery room wall to inform all learners who use the room about main food groups and food sources.

Learners could work together and take one section of the Eatwell Guide and carry out research to find out the proportion of the diet represented by the food group and the reasons for the recommendation. They could discuss the foods that fit into each group and consider a range of recipes to show which ingredients belong to which section.

#### **Suggested activities:**

Learners could make a poster to illustrate each of the 8 healthy diet guidelines to present to younger children to help them understand the importance. Learners could choose a particular age group and decide how they might present their poster to them.

Learners could consider their own daily food consumption and whether they eat enough fibre. They could then think about how they could improve the amount they eat.

Learners could make a list of the fibre content of a selection of foods. (For example, wholegrain bread, brown rice, porridge oats, pear, lentils, packet breakfast cereal). The learners could consider their fluid intake at the same time.

Learners could be introduced to food diaries and how they can be used by various professionals; this could be done by showing an example of a food diary and asking the learners to identify what is healthy about it, what is less healthy, what could be improved and how.

Learners could complete their own food diary, listing everything they had to eat and drink yesterday, and analyse it, considering what is healthy about it, what is less healthy, what could be improved and how. They could do this by colour-coding the diary. Learners could consider the diets of other people over a 3 day period.

### 3. Teaching guidance – food groups, key nutrients and a balanced diet

Analyse the findings: are the '8 tips for healthy eating' being followed? What recommendations would they suggest, making their diets healthier, and give reasons why.

Learners could create ideas for incorporating 5 portions of fruit and vegetables for a student living away from home and consider the cost and range of fruits and vegetables available. Ask the learners to list what counts as a portion.

Learners could prepare a meal using healthier cooking methods (for example, a healthier version of a traditional fried breakfast). Why is the meal healthier? Discuss the outcomes and impact on taste as well as nutrition.

Learners could prepare a visual display of what 100 kcals looks like in a range of foods. Learners could weigh/measure out the food, such as cheese, butter, yogurt, breakfast cereal, porridge oats, biscuits, cakes, apples, apple juice, tomatoes, chocolate, milk, wholemeal and white bread. They could discuss the energy-rich foods and determine which are not useful in our diets.

Using the Eatwell Guide, consider asking learners to look at a range of recipes and place each main ingredient in the appropriate food group (for example, in a vegetable lasagne, there is protein in the milk, carbohydrate in the pasta, and fat in the roux sauce). Learners should look at the guide and work out if the dish is balanced and compare their findings with others working on different dishes. Consider holding a class discussion on the outcomes.

Learners could consider the information provided on food labels about their vitamin and mineral content. Learners could then discuss their findings.

A chart could be created, listing vitamins and minerals in the first column with facts about each one's role or importance in the second column, and the foods it is associated with in the third.

Learners could be asked to research typical energy values of food per 100g (kJ and kcal) in popular snack foods (for example, crisps, nuts, biscuits, yogurts, chocolate bars and breakfast bars). Comparisons could be made, and learners could determine which have the highest energy values. Learners could devise and prepare a healthier snack that is low in sugar, fat and salt and evaluate the product for taste and appeal as an alternative to higher calorie purchased items.

Learners could be asked to adapt a traditional recipe to create a healthier version (for example, shepherd's pie, spaghetti Bolognese, lasagne, apple crumble and custard, chicken curry, burgers, scones and pizza). Learners could complete a sensory analysis of the healthier options and report the changes to fat, sugar, salt and energy levels in the dishes.

Food labelling: learners could investigate a range of food labels, and the information provided by manufacturers across a range of products. What claims do the manufacturers make and are these accurate? For example, to make a health claim about calcium, a product must contain at least 15% of the daily reference intake. Learners could work in groups to examine a range of labels and health claims such as 'low fat', 'no added sugar' and 'high in fibre'. The learners could explain the significance of the allergens being written in a bold font on the label.

Traffic light system on food labels: ask learners to compare 2 or 3 similar processed products, such as tinned, frozen and manufactured, and produce a report on the nutritional content in each. What do

**3. Teaching guidance – food groups, key nutrients and a balanced diet**

the figures really mean for fat, sugar and salt content? How useful is our present labelling system and does it help us to choose the food we eat?

**Resources:**

Classroom teaching pack:

- PowerPoint
- lesson plans
- scheme of work
- worksheets

**Other resources:****Video clips:**

[www.bbc.co.uk/teach/class-clips](http://www.bbc.co.uk/teach/class-clips) (the science behind dietary fibre/protein/fat)

**Posters and worksheets:**

[www.foodafactoflife.org.uk](http://www.foodafactoflife.org.uk)

**External visits/guest speakers:**

The learners may benefit from listening to the BBC video clips to encourage initial discussions at the start of lessons. Additionally, practitioners may be contacted through a variety of methods and speak to learners via Google Hangouts, Microsoft Teams, or other online platforms.

**Useful websites:**

<https://foodteacherscentre.co.uk/resources>  
[www.nutrition.org.uk](http://www.nutrition.org.uk)

**4. Teaching guidance – factors affecting food choice**

It is important that learners are given the opportunity to gain knowledge and understanding about the wide range of influences on an individual's food choice, and how it has an impact on the food we prepare and cook.

**Suggested activities:**

Are learners able to detect foods by smell alone? Teachers could use a range of strong-smelling foods, such as cheese, anchovies, honey, mint sauce, garlic and golden syrup. This task could be extended by getting the learners to set up their own mystery tasting stations and ask others to see if they recognise foods by smell alone, or by smell and texture. Learners could use fruit or vegetables with different textured skin or flesh, such as lychees, peppers, kiwi fruit, oranges and peaches. How many learners can only detect foods by their taste? Ask them to discuss their findings as a class.

Learners could examine the spices used in curry dishes. They could each prepare a basic vegetable curry made with 3 spices of their choice (in addition to some chilli), keeping the recipe to themselves.

#### 4. Teaching guidance – factors affecting food choice

Learners could taste each other's dishes to identify the spices that have been used. Learners could consider what makes a curry hot, discuss this and other aspects that affect the taste.

Learners could compile a list of what factors would influence food choice for a range of people to include:

- a family with 3 children and a busy lifestyle
- a single parent with 2 school age children
- a teenage student who is an active swimmer
- an elderly person living on a state pension
- a single person who wants to eat organic food
- a couple living in a city centre with limited access to food shops

Teachers could ask learners to work in small groups to encourage discussion and, by sharing the range of issues raised, they should be able to compile a comprehensive list. Social, environmental, nutritional, and seasonal factors could be highlighted.

How seasons affect food and availability: learners could be asked to complete a diagram showing the 4 seasons of the year with foods that are seasonal, and give the name of a dish that could be made using each food (for example, in autumn, apples and apple pie). A group discussion could then explore why we can buy foods that are not in season (for example, strawberries in January). What impact can this have on the environment, on cost, and on taste?

Learners could be provided with a fictional (or real) restaurant menu from a local hotel, for a party of guests arriving from a range of countries. Ask the learners to give advice as to the suitability of each item on the menu, considering the possible religious backgrounds the guests might have. They should indicate the religious groups for which the dishes will be suitable, or not suitable. The menu could include items such as prawn skewers, steak in pepper sauce, pork burgers, chicken curry, and bacon and tomato quiche.

Learners could be asked to make a simple everyday meal that is also readily available as a shop bought ready to eat meal (for example, chilli con carne, shepherd's pie, chicken curry). They could cost out the fresh ingredients and buy them at a local supermarket alongside the ready to eat meal. Alternatively, they could cost out the fresh ingredients using an online shopping site. They must prepare and cook the dish, and then compare both dishes for cost, nutritional content, and sensory aspects, and arrive at their preferred choice and discuss why, referring to social, environmental and seasonal factors.

In small groups, learners could be asked to research into the dietary requirements of a range of individuals and produce a poster for classroom display. This could include diabetes, heart disease, obesity, lactose intolerance and coeliac disease.

#### Other resources:

#### Video clips:

[www.bbc.co.uk/bitesize](http://www.bbc.co.uk/bitesize)  
[archive.foodafactoflife.org.uk](http://archive.foodafactoflife.org.uk) (sensory analysis templates)

#### External visits/guest speakers:

#### 4. Teaching guidance – factors affecting food choice

Additionally, professionals may be contacted through a variety of methods and speak to learners via Google Hangouts, Microsoft Teams, or other online platforms.

##### Useful websites:

[www.bbc.co.uk/bitesize](http://www.bbc.co.uk/bitesize)

[www.food4life.org.uk](http://www.food4life.org.uk)

[www.foodafactoflife.org.uk](http://www.foodafactoflife.org.uk)

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### 5. Teaching guidance – food preparation, cooking skills and techniques

It is important that learners are given the opportunity to gain knowledge and understanding of all the stages of food preparation and cooking for a range of ingredients and across a wide variety of recipes. The recipes covered should allow them to collate a useful repertoire to use as a reference at any point in their programme.

It is very important that practical work takes place throughout the programme, allowing learners sufficient time in the kitchen, ideally each week, in which to develop and practise their skills, whilst using a range of equipment, in order for them to fully develop a wide range of food preparation, cooking skills and techniques. Learners need to develop skills that show they can achieve a uniform and consistent result each time.

Learners need to be fully prepared for what will be expected of them in the non-exam assessment. Throughout their practical work, learners must apply all hygiene and safety measures, as well as health and nutritional considerations, wherever possible and where appropriate. It is important that learners evaluate their completed dishes from the start and build up their confidence in being able to describe the texture, taste and appearance of the dish using appropriate terminology. A sensory analysis tool could be used to support this exercise.

When they present their dishes, learners are expected to focus on overall appearance of the dish and be able to present them with appropriate garnishes and decoration each time, as well as choosing appropriate utensils and plates.

#### **Suggested activities:**

Practical work sheets: teachers might find it useful to use a standard document for each practical class that captures the following for each recipe used:

- ingredients
- functions of the primary ingredients
- method
- preparation and cooking skills being demonstrated
- health and safety points
- timings
- equipment required

Learners can be gradually asked to complete the worksheet themselves as their knowledge increases (for example, an apple pie would refer to using, cleaning and storing knives, using a peeler and corer, chopping board, mixing bowl, sieve, rolling pin, and demonstrate skills including measuring, peeling, chopping, rubbing-in, pastry making, baking), considering areas for improvement. These documents could then act as a useful reference for the learners.

Functions of ingredients: learners could be given a previous practical recipe (for example, apple pie) and annotate the sheet to show the various stages of the recipe, such as preparation, method and timings. The learners could be asked to carry out research into the various purposes of ingredients in the recipe, such as aeration, thickening, shortening, aesthetics, and taste. This recipe sheet could also provide a reference source for their future use. A group discussion could follow to take their next practical recipe and identify the purpose of the different ingredients in the recipe.

Preparation and cooking skills: teachers could demonstrate the preparation, cooking and service of a dish (or use a video clip of a well-known chef) and learners could identify all the preparation and

**5. Teaching guidance – food preparation, cooking skills and techniques**

cooking skills being used, listing them as the demonstration progresses. Each learner could take one or more skill including basic preparation skills (such as weighing, measuring, peeling, chopping, creaming and rubbing-in) as well as cooking skills (to include simmering, boiling, baking, stir frying, grilling and roasting), and carry out research into how the skill is carried out, and ways in which it is used with different ingredients. They could then present their findings back to the class, who will complete a summary chart for their future reference.

Time plans: learners need to practise how they use their time effectively when preparing and cooking a dish, to meet a deadline. They could be asked to start with a simple time plan for one dish, completing a template provided, that is reviewed and amended as the sessions progress, with teacher feedback. The learners can then build this up to completing a time plan for 2 dishes that is dovetailed, has all stages listed, and identifies health and safety considerations, selection of ingredients, equipment, and fridge/oven space, in readiness for the next stage in their own menu planning.

**Resources:**

Classroom teaching pack:

- PowerPoint
- lesson plans
- scheme of work
- worksheets

**Other resources:****Worksheets:**

[www.busyteacher.org](http://www.busyteacher.org)

**External visits/guest speakers:**

The learner may benefit from video clips of well-known chefs or a visit by a chef from a local restaurant.

Additionally, practitioners may be contacted through a variety of methods and speak to learners via Google Hangouts, Microsoft Teams, or other online platforms.

**Useful websites:**

[www.foodafactoflife.org.uk/recipes](http://www.foodafactoflife.org.uk/recipes)  
[www.bbc.co.uk/food](http://www.bbc.co.uk/food)

## 6. Teaching guidance – recipe amendment, development and evaluation

It is important that learners are given the opportunity to gain knowledge and practical experience of amending and developing recipes to meet the needs of individuals and specific groups of people. They need to understand the range of reasons why recipes need to be amended, and the teacher will need to provide a range of scenarios to be able to explore this.

Learners must be able to assess a recipe and its contribution to healthy eating. This could include any factors including the ingredients used, cooking method selected, portion control, and serving suggestions. Learners should be able to demonstrate interesting recipe adaptation ideas, including lowering the fat, sugar and salt content, increasing the fibre and nutritional content through the addition of ingredients, promoting the 5-a-day concept and making changes to cooking and preparation methods.

At this stage in their course, learners should be more confident in fully evaluating their completed dishes and using the correct terminology to describe the appearance, texture, and taste of the food they present. The learner needs to understand the importance of developing their palate to ensure their amendments to recipes show an appropriate combination and balance of ingredients and flavours, which they adjust through seasoning and taste to ensure a pleasing, edible dish. Sensory analysis tools are useful for them to use, as well as peer assessment.

### Suggested activities:

Learners could be asked to design a daily menu that would be suitable for each of the following groups:

- a single person living on their own, with a limited budget
- a very active student, new to living away from home
- low-income family of 4, with toddlers
- teenagers on a camping trip
- family with 4 school-aged children and busy lifestyle, one of whom is a vegetarian
- elderly couple living on a pension

The learners could work in small groups and be asked to prepare a presentation that gives reasons for their choice, including social, environmental and nutritional factors. Learners could then evaluate their final dishes for taste, texture, appearance and smell.

Learners could be asked to design, cook, prepare and evaluate a lunch menu suitable for a teenager with either:

- lactose intolerance
- coeliac disease

The range of dishes presented across the group could lead to very useful discussions on food intolerances and allergies.

The learners could be provided with a typical daily food intake from an adult who has recently been diagnosed as diabetic. What are the implications of following the current diet and what improvements would they recommend and why?

The learners could be provided with a range of traditional recipes, such as spaghetti Bolognese, chicken curry, meatballs in tomato sauce, beef burgers, fish and chips, and cheese and tomato pizza.

**6. Teaching guidance – recipe amendment, development and evaluation**

The learners could be asked to annotate each one with suggestions as to how they will make it healthier, with reasons for their choice. Alternatives to cooking methods used could also be made.

The learners could be provided with the menu from the school dining room and asked to amend it with reasons for their choice, to meet the nutritional requirements of the range of school children. Nutritional merits of the present menu could be discussed first, and reference made to the present advice on healthy eating.

**Resources:**

Classroom teaching pack:

- PowerPoint
- lesson plans
- scheme of work
- worksheets

**Other resources:**

- recipe books from a range of chefs and cooks

**External visits/guest speakers:**

The learner may benefit from listening to a local chef (for example, a chef from a local children's nursery or care home for the elderly) or watching TV clips of more famous chefs or clips from MasterChef and The Great British Bake Off.

Additionally, practitioners may be contacted through a variety of methods and speak to learners via Google Hangouts, Microsoft Teams, or other online platforms.

**Useful websites:**

[www.nhs.uk/conditions](http://www.nhs.uk/conditions)

[www.nutrition.org.uk](http://www.nutrition.org.uk)

[www.coeliac.org.uk/information-and-support](http://www.coeliac.org.uk/information-and-support)

[www.diabetes.org](http://www.diabetes.org)

## 7. Teaching guidance – menu and action planning for completed dishes

It is important that learners are given the opportunity to demonstrate the skills they have developed across the programme, by being able to respond to a customer brief, designing appropriate menus and action plans, then following through with the preparation, cooking, and evaluation of their dishes. It is important for the teacher to consider that at this stage, their practical work should allow them to demonstrate the skills, knowledge and understanding they have gained from the programme overall. Scenarios set should be challenging, but achievable.

In the preparation of their dishes, using their action plans, learners will be able to demonstrate that they can:

- prepare themselves and their work area safely and hygienically
- select the appropriate ingredients and follow recipes
- select correct equipment
- demonstrate preparation and cooking skills they have learned
- demonstrate safe and hygienic cleaning and storage of equipment and utensils
- demonstrate appropriate presentation of their final dishes, including decoration and garnishes
- evaluate the planning and outcome of completed dishes against the requirements of a customer brief, including their ability to evaluate the overall final taste and appearance of the dishes cooked

It is suggested that in the first instance, a simple one course dish could be planned, presented and evaluated, and then build up to a 2-course menu that allows the learners to demonstrate the range of skills they have learned, as well as being able to effectively action plan. It is expected that action plans will need amending, following teacher feedback, prior to the practical work beginning.

It is important that learners assess their final dishes for appearance, taste, texture and smell, and make recommendations for improvements with reasons given.

Teacher input and possible class discussion: why do we need to produce a plan of action for the practical session? How do we produce a plan of action? What should we include? What order should we do things in? How can we use the time most effectively? If we are going to do a 2-course meal, how can 2 courses be made alongside each other? How might this impact on our choice of dishes? And how can we write this as an action plan?

### **Suggested activities:**

Learners could be asked to select an appropriate dish of their choice that demonstrates a range of preparation and cooking skills, for one of the following:

- a low sugar summer dessert
- a low fat breakfast dish
- a low cost lunch dish for an elderly person
- a supper dish for a vegetarian or vegan

Learners will plan, prepare, and cook the dish. They could be asked to explain their reasons for their choice, how it meets the task set, the cost requirements, nutritional value, range of preparation and cooking skills required, social and environmental factors, and sensory factors. They could present their dishes and their analysis to the rest of the group. An action plan will be needed.

Suggested customer brief:

**7. Teaching guidance – menu and action planning for completed dishes**

The childcare class at your school/college is holding a party for children aged 5–6 years. They have asked you to plan, cook and serve at least 2 dishes for the party. Each dish should be suitable for children of this age group, healthy to eat, and show a range of preparation and cooking skills. You will have 2 hours in which to prepare, cook and serve your choice of dishes and to wash up and clear away.

Suggested customer brief:

You have invited 2 people aged 80 to visit you for lunch next week. Plan, cook and evaluate a 2-course meal for them. Your choice of dishes should be suitable for their age group, healthy to eat, and show a range of preparation and cooking skills. You will have 2 hours in which to prepare, cook and serve your choice of dishes and to wash up and clear away.

In both cases, learners need to evaluate their performance. They could be asked to identify the strengths and weaknesses relating to the menu chosen and the brief set, planning and preparation and their completed dishes. It is important that they are able to make a final critical evaluation on the overall appearance, texture, aroma, and taste of the dishes presented, and what improvements they could make. A sensory analysis tool could also be used, as well as peer and customer feedback. Suggestions for improvement could also be made, with clear reasons given.

**Resources:**

Classroom teaching pack:

- PowerPoint
- lesson plans
- scheme of work
- worksheets

**Other resources:****Sensory analysis worksheets/sensory vocabulary:**

[www.foodafactoflife.org.uk/14-16-years](http://www.foodafactoflife.org.uk/14-16-years)

**External visits/guest speakers:**

The learner may benefit from listening to a local restaurant chef, such as a chef from a local children's nursery or care home for the elderly, or caterer for school meals discuss how they plan and organise their kitchen to ensure everything is ready on time.

Additionally, practitioners may be contacted through a variety of methods and speak to learners via Google Hangouts, Microsoft Teams or other online platforms.

**Useful websites:**

[www.tes.com](http://www.tes.com)

[www.foodafactoflife.org.uk](http://www.foodafactoflife.org.uk)

## Synoptic connections

Synoptic assessment requires learners to combine elements of their learning and show accumulated knowledge and understanding across the qualification content. It enables learners to evidence their capability to integrate and apply knowledge, understanding and skills gained with breadth and depth in context.

It is therefore essential when planning for teaching and throughout delivery that the interdependencies and links build across the content of the qualification and are highlighted and reinforced.

The qualification comprises 7 content areas in a single unit model. All content is mandatory and must be taught.

The teaching content does not have to be delivered in a linear way; the unit contents are interdependent in knowledge, skills and concepts.

Teachers may take a synoptic approach across the qualification. This will enable learners to be able to apply theories and concepts from across the qualification specification in context to skills-based situations. Through combining content and developing holistic connections, learners will be able to demonstrate and evidence their full knowledge and understanding of the subject area and the food and cookery industry.

Learners will have the opportunity to identify relevant study skills and reflect upon their preferred learning style throughout the qualification.

### Section 3: additional information

#### School accountability measures (performance points)

This V Cert qualification has been developed to meet the criteria set by the Department for Education (DfE) to be included in the key stage 4 performance tables. Each grade has been assigned a points value. Please check the Register of Regulated Qualifications website [register.ofqual.gov.uk](https://register.ofqual.gov.uk) for further information.

#### Discounting

If a learner is taking a GCSE and V Cert in the same year with the same discount code, such as GCSE Physical Education and an NCFE V Cert in health and fitness, the first entry will count. However, because we do not upload V Cert data to the DfE until August, the exam entry for V Certs is classed as the date the centre claims certification.

- if the centre delivers the GCSE Physical Education exam first and then claims the V Cert afterwards, the GCSE will count
- if the centre delivers the V Cert first and claims the certificate before the GCSE Physical Education exam is sat, the V Cert will count
- if the centre delivers the GCSE and the exam is sat on the same day the V Cert certificate is claimed, then it is the best result that counts

Discount codes for V Cert qualifications can be found on the NCFE website. We advise centres to refer to the [Discounting and Early Entry Guidance](#) document provided by the DfE. For more information on discounting please contact the DfE directly.

#### Qualification dates

Regulated qualifications have operational end dates and certification end dates.

We review qualifications regularly, working with sector representatives, vocational experts and stakeholders to make any changes necessary to meet sector needs and to reflect recent developments.

If a decision is made to withdraw a qualification, we will set an operational end date and provide reasonable notice to our centres. We will also take all reasonable steps to protect the interest of learners.

An operational end date will only show on the Ofqual Register of Regulated Qualifications [register.ofqual.gov.uk](https://register.ofqual.gov.uk) if a decision has been made to withdraw a qualification. After this date we can no longer accept learner registrations. However, certification is allowed until the certification end date so that learners have time to complete any programmes of study. The certification end date will only show on the Ofqual Register once an operational end date has been set. After this date we can no longer process certification claims.

Where a qualification has an external assessment, this can only be taken up to the last assessment date set by us. No external assessments will be permitted after this date so learners will need to be entered in sufficient time.

## Support materials

The following support materials are available to assist with the delivery of this qualification and are available on the NCFE website:

- learning resources
- qualification factsheet

## Other support materials

The resources and materials used in the delivery of this qualification must be age-appropriate and due consideration should be given to the wellbeing and safeguarding of learners in line with your centre's safeguarding policy when developing or selecting delivery materials.

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