Pearson Edexcel Level 3 Certificate for Proficiency in Food Industry Skills

Specification

Competence-based qualification
First registration April 2011

Issue 3

Edexcel, BTEC and LCCI qualifications

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About Pearson

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Summary of Pearson Edexcel Level 3 Certificate for Proficiency in Food Industry Skills specification Issue 3 changes

Summary of changes made between previous issue and this current issue	Page number
All references to QCF have been removed throughout the specification	
Definition of TQT added	1
Definition of sizes of qualifications aligned to TQT	2
TQT value added	6
Guided learning definition updated	17
QCF references removed from unit titles and unit levels in all units	21-468

Earlier issue(s) show(s) previous changes.

If you need further information on these changes or what they mean, contact us via our website at: qualifications.pearson.com/en/support/contact-us.html.

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Introducing Pearson Edexcel NVQ qualifications

What are NVQ qualifications?

National Vocational Qualifications (NVQs) are work-based qualifications that give learners the opportunity to develop and demonstrate their competence in the area of work or job role to which the qualification relates.

NVQs are based on the National Occupational Standards (NOS) for the appropriate sector. NOS define what employees, or potential employees, must be able to do and know, and how well they should undertake work tasks and work roles. At Level 2 and above, these qualifications are recognised as the competence component of Apprenticeship Frameworks. Qualifications at Level 1 can be used in Traineeships, which are stepping-stones to Apprenticeship qualifications. NVQs qualifications can also be delivered as stand-alone for those who wish to take a work-based qualification.

NVQs qualifications are outcomes-based with no fixed learning programme – allowing flexible delivery that meets the individual learner's needs. They are suitable for those in employment or those who are studying at college and have a part-time job or access to a substantial work placement so that they are able to demonstrate the competencies that are required for work.

Most learners will work towards their qualification in the workplace or in settings that replicate the working environment as specified in the assessment requirements/strategy for the sector. Colleges, training centres and/or employers can offer these qualifications provided they have access to appropriate physical and human resources.

Sizes of NVQ/Competence-based qualifications

For all regulated qualifications, Pearson specify a total number of hours that is estimated learners will require to complete and show achievement for the qualification – this is the Total Qualification Time (TQT). The TQT value indicates the size of a qualification.

Within the TQT, Pearson identifies the number of Guided Learning Hours (GLH) that we estimate a centre delivering the qualification might provide. Guided learning means activities, such as lessons, tutorials, online instruction, supervised study and giving feedback on performance, that directly involve tutors and assessors in teaching, supervising and invigilating learners. Guided learning includes the time required for learners to complete external assessment under examination or supervised conditions.

In addition to guided learning, other required learning directed by tutors or assessors will include private study, preparation for assessment and undertaking assessment when not under supervision, such as preparatory reading, revision and independent research.

As well as TQT and GLH, qualifications can also have a credit value – equal to one tenth of TQT, rounded to the nearest whole number.

TQT and credit values are assigned after consultation with users of the qualifications.

NVQ/Competence-based qualifications are available in the following sizes:

- Award – a qualification with a TQT value of 120 or less (equivalent to a range of 1–12 credits)

- Certificate – a qualification with a TQT value in the range of 121–369 (equivalent to a range of 13–36 credits)

- Diploma – a qualification with a TQT value of 370 or more (equivalent to 37 credits and above).

Qualification titles covered by this specification

This specification gives you the information you need to offer the Pearson Edexcel Level 3 Certificate for Proficiency in Food Industry Skills.

Qualification title	Qualification Number (QN)	Operational start date
Pearson Edexcel Level 3 Certificate for Proficiency in Food Industry Skills	600/1320/5	01/04/11

Qualifications eligible and funded for post-16-year-olds can be found on the funding Hub. The Skills Funding Agency also publishes a funding catalogue that lists the qualifications available for 19+ funding.

You should use the Qualification Number (QN), when you wish to seek public funding for your learners. Each unit within a qualification will also have a unique reference number, which is listed in this specification.

The qualification title and unit reference numbers will appear on the learners' final certification document. Learners need to be made aware of this when they are recruited by the centre and registered with Pearson.

Key features of the Pearson Edexcel Level 3 Certificate for Proficiency in Food Industry Skills

This qualification:

- are nationally recognised
- are based on the food industry skills National Occupational Standards (NOS). The NOS, assessment strategy and qualification structure(s) are owned by Improve.

The Pearson Edexcel Level 3 Certificate for Proficiency in Food Industry Skills has been approved as a component for the Food and Drink Manufacturing Advanced Apprenticeship framework.

What is the purpose of this qualification?

This qualification is designed for learners who are working in a range of food operations roles, typically in automated production/processing companies. It offers learners the opportunity to develop skills and knowledge required to prove competence at work. It will also suit learners competent at core production/processing activities, looking to expand their existing skills, perhaps to support multi-skilling or to develop into a specialist area such as quality assurance or laboratory operations.

Who are this qualification for?

This qualification is for all learners aged 16 and above who are capable of reaching the required standards.

Pearson's policy is that the qualifications should:

- be free from any barriers that restrict access and progression
- ensure equality of opportunity for all wishing to access the qualification(s).

What are the benefits of this qualification to the learner and employer?

This qualification offer the food industry a unique mix of occupational skills and knowledge units covering production/processing, food sales and service or support operations competencies, combined with the detailed knowledge units relevant to all roles.

The flexible choice of units, allows learners to select units that are most relevant to their own employment, learning and progression requirements. The choice of units also reflects the wide variety of jobs which people do in different types of companies in the industry.

The common operations units also offer learners the opportunity to take competencies which are generic to the whole food and drink industry, such as food safety, working with others and quality.

What are the potential job roles for those working towards this qualification?

- Abattoir operative
- Baker
- Brewery worker
- Butcher
- Confectioner
- Food processing operative
- Food scientist/technologist
- Meat hygiene inspector
- Meat process worker
- Technical brewer

What progression opportunities are available to learners who achieve this qualification?

On successful completion of this qualification learners can progress to Level 4 qualifications such as the Pearson Edexcel Level 4 Award, Certificate and Diploma for Proficiency in Food Manufacturing Excellence.

What is the qualification structure for the Pearson Edexcel Level 3 Certificate for Proficiency in Food Industry Skill?

The Total Qualification Time (TQT) for this qualification is 270

The Guided Learning Hours for this qualification is 222.

To achieve the qualification, learners must achieve a minimum of 27 credits, comprising of the following combination of credits from each of the three unit groups: Group A, a minimum of 21 credits, Group B, it is not mandatory to take any units from Group B but up to 4 credits can be achieved and Group C, it is not mandatory to take any credits from this group but up to 6 can be achieved. Any further credit achieved up to 36 credits will be recorded with all the units that have been achieved towards the qualification.

Group A – Food Industry Skills Units (Mandatory group)

Unit reference number	Unit title	Credit	Level
J/502/7428	Support Commissioning of Plant, Equipment and Processes in Food Operations	3	3
F/502/7427	Understand How to Support Commissioning of Plant, Equipment and Processes in Food Operations	2	3
D/602/5811	Maintain Plant and Equipment in Food Operations	4	3
K/602/5830	Understand How to Maintain Plant and Equipment in Food Operations	3	3
A/602/4617	Diagnose Problems in Food Operations	3	3
F/602/4618	Understand How to Diagnose Problems in Food Operations	3	3
J/602/4619	Resolve Problems in Food Operations	3	3
A/602/4620	Understand How to Resolve Problems in Food Operations	4	3
D/601/8311	Carry Out Sampling for Quality Control in Food Operations	2	3
H/601/8312	Understand How to Carry Out Sampling for Quality Control in Food Operations	3	3
L/502/7365	Carry Out Testing for Quality Control in Food Operations	3	3
K/502/7406	Understand How to Carry Out Tests for Quality Control in Food Operations	2	3

Unit reference number	Unit title	Credit	Level
M/502/7407	Monitor and Control Quality of Work Activities in Food Operations	2	3
F/602/4697	Monitor and Control Throughput to Achieve Targets in Food Operations	2	3
J/602/4698	Understand How to Monitor and Control Throughput to achieve Targets in Food Operations	3	3
L/602/4699	Carry Out Quality Audits in Food Operations	3	3
T/602/4700	Understand How to Carry Out Quality Audits in Food Operations	3	3
T/502/7408	Develop Test Samples in Food Manufacture	3	3
A/502/7409	Understand How to Develop Test Samples in Food Manufacture	2	3
M/502/7410	Develop Product Specifications in Food Manufacture	2	3
T/502/7411	Understand How to Develop Product Specifications in Food Manufacture	2	3
A/502/7412	Evaluate and Improve Production in Food Manufacture	3	3
F/502/7413	Understand How to Evaluate and Improve Production in Food Manufacture	2	3
A/602/4701	Control Energy Efficiency in Food Operations	3	3
F/602/4702	Control Waste Minimisation in Food Operations	3	3
J/602/4703	Understand How to Control Waste Minimisation in a Food Operations	3	3
L/602/4704	Control Water Usage in Food Operations	3	3
R/602/4705	Understand How to Control Water Usage in Food Operations	3	3
Y/602/4706	Control Transport Efficiency in Food Operations	3	3
D/602/4707	Understand How to Control Transport Efficiency in Food Operations	3	3
T/602/0646	Monitor and Control Waste Disposal in Food Operations	3	3
M/602/4517	Understand How to Monitor and Control Waste Disposal in Food Operations	3	3
J/502/7414	Plan Production Schedules in Food Manufacture	3	3

Unit reference number	Unit title	Credit	Level
L/502/7415	Understand How to Plan Production Schedules in Food Manufacture	2	3
R/502/7416	Monitor and Report on Production Progress in Food Manufacture	2	3
Y/502/7417	Understand How to Monitor and Report on Production Progress in Food Manufacture	2	3
D/502/7418	Carry Out Process Control in Food Manufacture	2	3
H/502/7419	Understand How to Carry Out Process Control in Food Manufacture	2	3
Y/502/7420	Produce Production Specifications in Food Manufacture	3	3
M/502/7584	Understand How to Produce Production Specifications in Food Manufacture	2	3
T/502/7490	Start Up Multi-stage Operations in Food Manufacture	2	3
K/502/7471	Understand How to Start Up Multi-stage Operations in Food Manufacture	2	3
M/502/7472	Shut Down Multi-stage Operations in Food Manufacture	2	3
F/502/7475	Understand How to Shut Down Multi-stage Operations in Food Manufacture	2	3
D/600/9804	Manage Customer Service in Own Area of Responsibility	4	3
K/502/7423	Monitor and Evaluate Customer Service in Food Operations	4	3
M/502/7424	Understand How to Monitor and Evaluate Customer Service in Food Operations	3	3
H/502/7422	Monitor and Maintain Standards of Conduct in Food Manufacture	2	3
D/502/7421	Understand How to Monitor and Maintain Standards of Conduct in Food Manufacture	3	3
F/602/4585	Set Up and Maintain Food Service Operations	2	3
J/602/4586	Monitor Effectiveness of Food Service Operations	2	3
L/602/4587	Understand How to Set Up and Maintain Food Service Operations	2	3
Y/601/2538	Analyse and Report Data	6	3
F/600/9469	Manage Personal Development	4	2

Unit reference number	Unit title	Credit	Level
M/600/9600	Set Objectives and Provide Support for Team Members	5	3
M/600/9628	Manage or Support Equality of Opportunity, Diversity and Inclusion in Own Area of Responsibility	4	3
L/600/9636	Support Team Members in Identifying, Developing and Implementing New Ideas	4	3
Y/600/9669	Plan, Allocate and Monitor Work of a Team	5	3
R/600/9685	Manage Conflict in a Team	3	3
Y/600/9686	Lead and Manage Meetings	4	3
T/600/9730	Manage Knowledge in Own Area of Responsibility	4	3

**Group B – Food Industry Common Operation Units
(Optional group)**

Unit reference number	Unit title	Credit	Level
H/602/5826	Monitor Food Safety at Critical Control Points in Operations	1	3
K/602/5827	Monitor Health, Safety and Environmental Systems in Food Operations	2	3
M/602/5828	Understand How to Monitor Health, Safety and Environmental Management Systems in Food Operations	3	3
H/602/1713	Maintain, Promote and Improve Environmental Good Practice in Food Operations	2	3
K/602/1714	Understand How to Monitor and Improve Environmental Good Practice in Food Operations	3	3
Y/602/1692	Monitor Product Quality in Food Operations	3	3
T/602/5829	Understand How to Control Product Quality in Food Operations	2	3
L/602/5075	Manage Organisational Change for Achieving Excellence in Food Operations	4	3
R/602/5076	Understand How to Manage Organisational Change for Achieving Excellence in Food Operations	3	3
H/600/9660	Develop Working Relationships with Colleagues	3	2

Group C – Food Operations Knowledge Units (Optional group)

Unit reference number	Unit title	Credit	Level
D/601/5313	Understanding the Principles and Practices of Assessment	3	3
Y/600/2382	The Principles of Hazard Analysis and Critical Control Points (HACCP) for Food Manufacturing	3	3
T/502/0183	The Principles of Food Safety Supervision for Manufacturing	3	3
D/602/4044	Principles of Monitoring and Assessing Risks in Food Operations	2	3
L/602/3987	Principles of Quality Sampling and Testing in Food Operations	3	3
T/602/4034	Principles of Quality in Food Operations	3	3
D/602/4061	Principles of Raw Food Materials in Food Operations	2	3
L/602/4038	Principles of Product Development in Food Operations	4	3
D/602/4058	Principles of Engineering Maintenance in Food Operations	3	3
L/601/2701	Principles of Sustainability in Food Operations	4	3
F/601/2954	Principles of Continuous Improvement Techniques (Kaizen) in Food Operations	3	3
D/601/9684	Principles of Using Information Communication Technology (ICT) and Management Information Systems (MIS) in Food Technology	4	4
H/602/4501	Principles of Food Data Analysis in Food and Drink	4	3
Y/502/7496	Principles of Sensory Assessment in Food Technology	3	3
K/602/4502	Principles of Appearance and Texture in Food Technology	3	3
M/602/4503	Principles of Flavours in Food Technology	4	3
T/602/4504	Principles of Rheological Characteristics in Food Technology	4	3
A/602/4505	Principles of Weights and Measures in Food Technology	4	3
J/502/7557	Principles of Energy Transfer in Heating Food Technology	4	3
A/502/7426	Principles of the Dehydration Process in Food Technology	4	3

Unit reference number	Unit title	Credit	Level
L/502/7429	Principles of Energy Transfer in Cooling Food Technology	4	3
L/502/7558	Principles of the Refrigeration Cycle in Food Technology	4	3
F/602/4506	Principles of Freezing Methods in Food Technology	4	3
H/602/4515	Principles of Pigments in Food Technology	5	4
K/602/4516	Principles of Functional Food Additives in Food Technology	4	3
A/602/4522	Principles of Yeast Biology for Food and Drink	4	3
A/602/4536	Principles of Microbiology in Food Technology	4	3
M/602/3013	Principles of Sterile Processing in Food Technology	4	3
T/602/4552	Principles of Cleaning Raw Food Materials	3	3
A/602/4553	Principles of Sorting and Grading Produce and Food Materials	3	3
F/602/4554	Principles of Bulk Size Reduction of Produce and Food Materials	4	3
J/602/4555	Principles of Homogenisation in Food Technology	4	3
H/502/7498	Principles of Filtration in Food Technology	4	3
J/502/7493	Principles of Centrifugation in Food Technology	3	3
L/502/7494	Principles of Blanching in Food Technology	3	3
R/502/7495	Principles of Irradiation in Food Technology	4	3
F/502/7430	Principles of Canning in Food Technology	4	3
L/602/4556	Principles of Aseptic Packaging in Food Technology	3	3
D/602/4562	Principles of Bar Coding in Food Operations	3	3
K/602/4564	Principles of Paper and Board Packaging in Food Operations	4	3
M/602/4565	Principles of Plastic and Cellulose Films in Food and Drink	4	3
T/602/4566	Principles of Food Labelling in Food Operations	4	3
D/601/9944	Principles of Achieving Excellence in Food Operations	4	4
R/601/9956	Principles of Improving Organisational Performance in Achieving Excellence in Food Operations	5	4

Unit reference number	Unit title	Credit	Level
H/601/9685	Principles of Energy Efficiency in Food Operations	4	4
Y/601/9683	Principles of Food Policy and Regulation	5	4

How is the qualification graded and assessed?

The overall grade for the qualification is a 'pass'. The learner must achieve all the required units within the qualification structure.

To pass a unit the learner must:

- achieve **all** the specified learning outcomes

- satisfy **all** the assessment criteria by providing sufficient and valid evidence for each criterion

- show that the evidence is their own.

The qualification is designed to be assessed:

- in the workplace or

- in conditions resembling the workplace, as specified in the assessment requirements/strategy for the sector, or

- as part of a training programme.

Assessment strategy

The assessment strategy for this qualification has been included in *Annexe C*. They have been developed by Improve in partnership with employers, training providers, awarding organisations and the regulatory authorities. The assessment strategy includes details on:

- criteria for defining realistic working environments

- roles and occupational competence of assessors, expert witnesses, internal verifiers and standards verifiers

- quality control of assessment

- evidence requirements.

Evidence of competence may come from:

- **current practice** where evidence is generated from a current job role

- a **programme of development** where evidence comes from assessment opportunities built into a learning/training programme whether at or away from the workplace

- the **Recognition of Prior Learning (RPL)** where a learner can demonstrate that they can meet the assessment criteria within a unit through knowledge, understanding or skills they already possess without undertaking a course of learning. They must submit sufficient, reliable and valid evidence for internal and standards verification purposes. RPL is acceptable for accrediting a unit, several units or a whole qualification

- a **combination** of these.

It is important that the evidence is:

Valid	Relevant to the standards for which competence is claimed
Authentic	produced by the learner
Current	sufficiently recent to create confidence that the same skill, understanding or knowledge persist at the time of the claim
Reliable	indicates that the learner can consistently perform at this level
Sufficient	fully meets the requirements of the standards.

Types of evidence (to be read in conjunction with the assessment strategy in *Annexe C*)

To successfully achieve a unit the learner must gather evidence which shows that they have met the required standard in the assessment criteria. Evidence can take a variety of different forms including the examples below. Centres should refer to the assessment strategy for information about which of the following are permissible.

- direct observation of the learner's performance by their assessor (O)

- outcomes from oral or written questioning (Q&A)

- products of the learner's work (P)

- personal statements and/or reflective accounts (RA)

- outcomes from simulation, where permitted by the assessment strategy (S)

- professional discussion (PD)

- assignment, project/case studies (A)

- authentic statements/witness testimony (WT)

- expert witness testimony (EPW)

- evidence of Recognition of Prior Learning (RPL).

The abbreviations may be used for cross-referencing purposes.

Learners can use one piece of evidence to prove their knowledge, skills and understanding across different assessment criteria and/or across different units. It is, therefore, not necessary for learners to have each assessment criterion assessed separately. Learners should be encouraged to reference the assessment criteria to which the evidence relates.

Evidence must be made available to the assessor, internal verifier and Pearson standards verifier. A range of recording documents is available on the Pearson website qualifications.pearson.com. Alternatively, centres may develop their own.

Centre recognition and approval

Centre recognition

Centres that have not previously offered Pearson qualifications need to apply for and be granted centre recognition as part of the process for approval to offer individual qualifications. New centres must complete both a centre recognition approval application and a qualification approval application.

Existing centres will be given 'automatic approval' for a new qualification if they are already approved for a qualification that is being replaced by the new qualification and the conditions for automatic approval are met. Centres already holding Pearson approval are able to gain qualification approval for a different level or different sector via Edexcel online.

Approvals agreement

All centres are required to enter into an approvals agreement which is a formal commitment by the head or principal of a centre to meet all the requirements of the specification and any linked codes or regulations. Edexcel will act to protect the integrity of the awarding of qualifications, if centres do not comply with the agreement. This could result in the suspension of certification or withdrawal of approval.

Quality assurance

Detailed information on Pearson's quality assurance processes is given in *Annexe A*.

What resources are required?

Each qualification is designed to support learners working in the food manufacturing sector. Physical resources need to support the delivery of the qualifications and the assessment of the learning outcomes and must be of industry standard. Centres must meet any specific resource requirements outlined in *Annexe C: Assessment strategy*. Staff assessing the learner must meet the requirements within the overarching assessment strategy for the sector.

Unit format

Each unit in this specification contains the following sections.

Unit title:

> This is the formal title of the unit that will appear on the learner's certificate

Unit reference number:

> This is the unit owner's reference number for the specified unit.

Level:

> All units and qualifications have a level assigned to them. The level assigned is informed by the level descriptors by Ofqual, the qualifications regulator.

Credit value:

> All units have a credit value. The minimum credit value is one, and credits can only be awarded in whole numbers. Learners will be awarded credits when they achieve the unit.

Guided learning hours:

> Guided Learning Hours (GLH) is the number of hours that a centre delivering the qualification needs to provide. Guided learning means activities that directly or immediately involve tutors and assessors in teaching, supervising, and invigilating learners, for example lectures, tutorials, online instruction and supervised study.

Unit summary:

> This provides a summary of the purpose of the unit.

Assessment requirements/evidence requirements:

> The assessment/evidence requirements are determined by the SSC. Learners must provide evidence for each of the requirements stated in this section.

Assessment methodology:

> This provides a summary of the assessment methodology to be used for the unit.

Learning outcomes:	Assessment criteria:	Evidence type:	Portfolio reference:	Date:

> Portfolio reference: The learner should use this box to indicate where the evidence can be obtained eg portfolio page number.

> Date: The learner should give the date when the evidence has been provided.

> Learning outcomes state exactly what a learner should know, understand or be able to do as a result of completing a unit.

> The assessment criteria of a unit specify the standard a learner is expected to meet to demonstrate that a learning outcome, or a set of learning outcomes, has been achieved.

> Learners must reference the type of evidence they have and where it is available for quality assurance purposes. The learner can enter the relevant key and a reference. Alternatively, the learner and/or centre can devise their own referencing system.

Units

Unit 1: Support Commissioning of Plant, Equipment and Processes in Food Operations

Unit reference number: J/502/7428

Level: 3

Credit value: 3

Guided learning hours: 21

Unit summary

This unit supports workforce development for those who support commissioning of plant, equipment and processes in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, supporting commissioning of plant, equipment and processes in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Prepare to commission plant, equipment and processes	1.1 monitor and adhere to procedures affecting commissioning, including: – environmental issues – health and safety – food safety issues 1.2 report requirements identified for new procedures to relevant people 1.3 identify staff training needs to operate new and modified equipment and report to relevant people 1.4 prepare plant for operation			
2 Contribute to commissioning	2.1 establish the status of all relevant items of equipment 2.2 record the operational responses of the plant, equipment and materials 2.3 check operational responses data against specifications 2.4 take action to correct any deviations in performance			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date

3 Report on the commissioning activity	3.1 report deviations to relevant personnel
	
	3.2 establish and maintain effective communication with managers and colleagues to report on:
	
	    – quality of product
	
	    – health and safety issues
	
	    – food safety issues
	
	    – environmental issues
	
	    – training needs
	
	    – advice provided
	
	3.3 complete and process the necessary commissioning documentation			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 2: Understand How to Support Commissioning of Plant, Equipment and Processes in Food Operations

Unit reference number: F/502/7427

Level: 3

Credit value: 2

Guided learning hours: 14

Unit summary

This unit supports workforce development for those who understand how to support commissioning of plant, equipment and processes, in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when supporting commissioning of plant, equipment and processes in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know about preparation prior to commissioning of plant, equipment and processes	1.1 evaluate relevant standards of health and safety and food safety associated with commissioning			
	1.2 describe how a commissioning plan can be communicated to relevant parties			
	1.3 describe the importance of meeting documentation requirements for commissioning			
	1.4 explain how to access and interpret relevant guidelines and specifications			
	1.5 describe the components and process for conducting a training needs analysis			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know about commissioning plant	2.1 describe limits of authority and competence for commissioning operators			
	2.2 describe the relevant plant, process and equipment specifications			
	2.3 evaluate the impact on operations that commissioning may have			
	2.4 describe when the range of options available for corrective action should be used			
	2.5 describe the process capability of newly installed plant and equipment			
	2.6 describe how a process is validated			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 3: Maintain Plant and Equipment in Food Operations

Unit reference number: D/602/5811

Level: 3

Credit value: 4

Guided learning hours: 26

Unit summary

This unit supports workforce development for those who maintain plant and equipment in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, maintaining plant and equipment in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Plan maintenance activities	1.1	access and interpret relevant information and instructions			
	1.2	evaluate the impact of instructions on operations			
	1.3	prioritise own work activities			
	1.4	interpret maintenance log			
	1.5	refer to planned maintenance schedule			
2 Prepare for maintenance activities	2.1	identify resources that will be required			
	2.2	ensure resources are fit for purpose			
	2.3	prepare work area for maintenance activity			
3 Communicate plans to the relevant people	3.1	check that maintenance activities are correctly authorised			
	3.2	report maintenance events to relevant colleagues			
	3.3	complete and process required documentation			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Undertake maintenance activities	4.1 monitor and adhere to procedures			
	4.2 use tools, materials, equipment and techniques that are fit for purpose			
	4.3 identify defects and discrepancies in components			
	4.4 take the necessary corrective action			
	4.5 minimise the wastage of consumable items			
	4.6 dispose of non-reusable items			
	4.7 leave plant and equipment safe, tidy and fit for future use			
5 Report on maintenance activities	5.1 ensure uncompleted work is recorded and reported to relevant people			
	5.2 evaluate the effectiveness of maintenance activities			
	5.3 communicate with managers and colleagues			
	5.4 complete and process required documentation			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 4: Understand How to Maintain Plant and Equipment in Food Operations

Unit reference number: K/602/5830

Level: 3

Credit value: 3

Guided learning hours: 23

Unit summary

This unit supports workforce development for those who understand how to maintain plant and equipment, in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when maintaining plant and equipment in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1　Know about planned maintenance	1.1　outline the importance of monitoring and adhering to procedures, to include: –　health and safety –　food safety –　environmental 1.2　explain how to assess the maintenance requirements of plant and equipment 1.3　describe limits of own authority when carrying out maintenance and the importance of working within them 1.4　evaluate the effectiveness of planned maintenance 1.5　describe the implications of not carrying out maintenance 1.6　outline how to evaluate the effectiveness of maintenance 1.7　evaluate the materials selection process 1.8　describe typical defects and discrepancies due to ineffective maintenance			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to carry out maintenance	2.1 describe the importance of documentation required for maintenance			
	2.2 describe how plant operating systems work			
	2.3 explain the impact of maintenance on operations			
	2.4 describe how to leave plant and equipment safe, tidy and fit for use			
	2.5 describe information and resources required for maintenance			
3 Know how to carry out and remedial maintenance	3.1 explain what to do if maintenance uncovers unexpected problems			
	3.2 describe what to do if resources are not fit for purpose			
	3.3 evaluate effective waste minimisation procedures			
	3.4 describe how to communicate remedial actions to relevant people			
	3.5 explain how to evaluate the effectiveness of maintenance activities			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 5: Diagnose Problems in Food Operations

Unit reference number:	A/602/4617
Level:	3
Credit value:	3
Guided learning hours:	14

Unit summary

This unit supports workforce development for those who diagnose problems in food operations within a food business.

The unit is designed for use primarily by operatives, team leaders, supervisors, technicians and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, when diagnosing problems in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by presenting relevant evidence of workplace performance, and may be supported by witness testimony and other workplace evidence. Any observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Identify problems	1.1	identify differences from normal operating conditions quickly			
	1.2	assess the impact of problems			
	1.3	take action to ensure safety of self and colleagues			
2 Diagnose problems	2.1	check and follow legal or regulatory requirements for: – hygiene – health and safety – environmental standards			
	2.2	establish the nature, cause and the effect of the problems			
	2.3	investigate problems in a safe and cost-effective manner, with minimum delay or wastage			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Report problems	3.1 communicate problems to the relevant person 3.2 complete and process all records			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 6:   Understand How to Diagnose Problems in Food Operations

Unit reference number: F/602/4618

Level: 3

Credit value: 3

Guided learning hours: 16

Unit summary

This unit supports workforce development for those who need to know how to diagnose problems in a food business.

The unit is designed for use primarily by operatives, team leaders, supervisors, technicians and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when applying workplace organisation techniques for achieving excellence in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know how to identify problems	1.1 outline standards of health, safety and hygiene that are required and the importance of applying them			
	1.2 explain the business's need for problem solving			
	1.3 evaluate the benefits of formalised problem solving			
	1.4 summarise operating procedures, standards and critical control factors in own work area			
	1.5 clarify limits of own authority and reporting arrangements in the event of problems that cannot be resolved			
2 Know how to diagnose problems	2.1 summarise how plant, equipment, tools, and testing equipment work and are used			
	2.2 explain product and process specifications and how to identify deviations from them			
	2.3 outline typical operating problems in own work area and their possible effect on other operations			
	2.4 explain how to investigate problems in a safe and cost-effective manner and the importance of doing so			
	2.5 explain how to define and verify the root cause of problems			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	2.6 outline methods that can be used to gather evidence about problems			
	2.7 outline how to analyse problems to determine their nature, cause and effects			
3 Know how to communicate problems	3.1 explain lines and methods of effective communication and the importance of using them			
	3.2 summarise the documentation requirements and the importance of meeting them			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 7: Resolve Problems in Food Operations

Unit reference number: J/602/4619

Level: 3

Credit value: 3

Guided learning hours: 16

Unit summary

This unit supports workforce development for those who resolve problems in a food business.

The unit is designed for use primarily by operatives, team leaders, supervisors, technicians and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, when resolving problems in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by presenting relevant evidence of workplace performance, and may be supported by witness testimony and other workplace evidence. Any observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Establish what the problems are	1.1 check and follow legal or regulatory requirements for: – hygiene – health and safety – environmental standards 1.2 check the available information and clarify or seek further information			
2 Implement solutions	2.1 select solutions which are effective in relation to operational requirements 2.2 ensure that the corrective actions determined meet with organisational requirements 2.3 implement own chosen solution to restore operating conditions safely and effectively 2.4 monitor operations to ensure that correct operating conditions are met and maintained 2.5 communicate the results of own actions to the relevant person			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
3 Report on further action to be taken	3.1	identify the need for further work and report this to the relevant person in sufficient detail for action to be taken			
	3.2	make suggestions to prevent the problem from happening again and ways to improve operations to managers and colleagues			
	3.3	complete and process all records			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 8: Understand How to Resolve Problems in Food Operations

Unit reference number: A/602/4620

Level: 3

Credit value: 4

Guided learning hours: 22

Unit summary

This unit supports workforce development for those who need to know how to resolve problems in a food business.

The unit is designed for use primarily by operatives, team leaders, supervisors, technicians and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when applying workplace organisation techniques for achieving excellence in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know how to establish what the problems are	1.1 outline standards of health, safety and hygiene and the importance of applying them			
	1.2 explain how the plant and equipment works			
	1.3 summarise the product and process specifications, the operating procedures, and standards in the area of work			
	1.4 detail where further information can be sourced			
	1.5 explain typical operating problems that occur in own work area and their possible effect on other operations			
	1.6 outline how to analyse problems in a systematic way and why it is important to do so			
	1.7 clarify the limits of own authority and reporting arrangements in the event of problems that cannot be resolved			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to implement solutions	2.1 outline the action to take in response to operating problems			
	2.2 summarise the factors to take into consideration when selecting solutions			
	2.3 outline how to assess the impact of solutions on other operations			
	2.4 explain how and when to use temporary and permanent solutions to restore operations in an effective way			
	2.5 explain how to monitor product integrity during and after overcoming problems and the importance of this			
	2.6 explain how to evaluate the effectiveness of solutions implemented			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to report on further action to be taken	3.1 outline the lines and methods of effective communication and the importance of using them			
	3.2 summarise the recording and communication needs, and the importance of using them correctly			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 9: Carry Out Sampling for Quality Control in Food Operations

Unit reference number: D/601/8311

Level: 3

Credit value: 2

Guided learning hours: 8

Unit summary

This unit supports workforce development for those who carry out sampling for quality control in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, carrying out sampling for quality control in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Sample food products to meet sampling requirements	1.1	prepare sampling resources			
	1.2	carry out hygienic sampling			
	1.3	label the samples for traceability			
	1.4	store sample prior to testing			
	1.5	clean sampling tools and equipment			
2 Maintain integrity of sample	2.1	record information about the sample for traceability purposes			
	2.2	follow instructions to maintain the condition of the sample			
	2.3	protect the sample from sources of contamination			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 10: Understand How to Carry Out Sampling for Quality Control in Food Operations

Unit reference number: H/601/8312

Level: 3

Credit value: 3

Guided learning hours: 26

Unit summary

This unit supports workforce development for those who understand how to carry out sampling for quality control, in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when carrying out sampling for quality control in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know about the principles of sampling	1.1 describe procedures for sampling			
	1.2 describe methods of hygienic sampling			
	1.3 explain the procedures post sampling			
	1.4 describe equipment used to take samples			
	1.5 explain actions to take to deal with defective equipment			
	1.6 explain controls in the sampling process			
	1.7 explain how to check products against specifications			
2 Know about maintaining sample integrity	2.1 describe traceability principles			
	2.2 describe a sampling plan			
	2.3 describe best practice when storing samples for testing			
	2.4 explain importance of labelling of samples			
3 Know about factors that influence samples	3.1 describe sample information that may be required prior to sampling			
	3.2 describe environmental factors that may influence sample results			
	3.3 describe intrinsic food properties that may affect sample results			
	3.4 explain why defective equipment may affect sample result			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 11: Carry Out Testing for Quality Control in Food Operations

Unit reference number: L/502/7365

Level: 3

Credit value: 3

Guided learning hours: 11

Unit summary

This unit supports workforce development for those who carry out testing for quality control in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, carrying out testing for quality control in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Prepare for quality testing	1.1	assemble resources for testing			
	1.2	ensure equipment is ready and calibrated for testing			
	1.3	report variances in equipment or testing			
	1.4	confirm specification for the testing application			
2 Carry out testing for quality	2.1	check integrity of sample			
	2.2	document sample information			
	2.3	perform tests within agreed specification			
	2.4	record test results			
	2.5	investigate out of specification results			
	2.6	report test deviations to relevant people			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 12: Understand How to Carry out Tests for Quality Control in Food Operations

Unit reference number: K/502/7406

Level: 3

Credit value: 2

Guided learning hours: 18

Unit summary

This unit supports workforce development for those who understand how to carry out tests for quality control, in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when carrying out tests for quality control in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know about the importance of accurate quality testing	1.1 explain the importance of standard operating procedures for quality control			
	1.2 describe a protocol for ensuring testing equipment is fit for purpose			
	1.3 describe the content of a typical testing specification			
	1.4 describe how to access and interpret product specifications			
2 Know about testing protocol for quality	2.1 describe the procedures used to identify suitable samples for testing			
	2.2 explain the importance in ensuring sample integrity			
	2.3 describe a suitable protocol for safe storage of samples prior to and after testing			
	2.4 describe how to assess product against key factors in product specifications using approved methods			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Know about equipment used in quality testing	3.1	describe how to prepare and calibrate testing equipment for use			
		3.2	describe the features of testing equipment			
		3.3	evaluate the importance of calibration checks on equipment are required			
		3.4	explain the importance of ensuring equipment is fit for purpose			
		3.5	explain the importance of reporting defective equipment			
4	Understand how to interpret and communicate test results	4.1	describe procedures and actions to take for product non-compliance			
		4.2	explain how to calculate test results			
		4.3	summarise acceptable levels of tolerance in quality interpretation			
		4.4	describe suitable documentation to ensure traceability			
		4.5	evaluate methods of communicating results both in specification and non compliance			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 13: Monitor and Control Quality of Work Activities in Food Operations

Unit reference number:	M/502/7407
Level:	3
Credit value:	2
Guided learning hours:	18

Unit summary

This unit supports workforce development for those who monitor and control quality of work activities in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, monitoring and controlling quality of work activities in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1　Carry out activities to ensure quality results are achieved	1.1　check that there are sufficient resources available to complete work activities within own area of responsibility			
	1.2　monitor consistently the variances in work activities against specifications			
	1.3　complete all relevant quality checks			
2　Report on quality of work activities against specifications	2.1　report all instances of non-compliance accurately and promptly to relevant people			
	2.2　action opportunities for improvement in work activities to relevant people			
	2.3　assess implications of changes on quality control mechanisms			
	2.4　access information from appropriate sources to support your report and recommendations			
	2.5　complete quality records accurately and in line with operational procedures			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 14: Monitor and Control Throughput to Achieve Targets in Food Operations

Unit reference number: F/602/4697

Level: 3

Credit value: 2

Guided learning hours: 9

Unit summary

This unit supports workforce development for those who monitor and control throughput to achieve targets in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, monitoring and controlling throughput to achieve targets in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Monitor and control throughput to achieve targets	1.1 organise work to meet predetermined schedules, targets and make effective use of resources			
	1.2 record the volume of throughput in line with operational requirements			
	1.3 record production run output targets within the agreed operational parameters			
	1.4 investigate output targets within the operational parameters			
2 Take action to resolve problems affecting volume of throughput	2.1 identify problems affecting the volume of throughput			
	2.2 take corrective action to rectify and minimise the effects of the problems			
	2.3 report problems, which exceed the limits of own authority, to the relevant people			
	2.4 resolve problems that fall within own limits of responsibility			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 15: Understand How to Monitor and Control Throughput to Achieve Targets in Food Operations

Unit reference number: J/602/4698

Level: 3

Credit value: 3

Guided learning hours: 15

Unit summary

This unit supports workforce development for those who understand how to monitor quality of work activities, in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when understanding how to monitor quality of work activities in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know about the best advice and guidance surrounding monitoring quality	1.1 describe the importance of conforming to statutory regulation			
	1.2 evaluate current practices for compliance with standard operating procedures			
	1.3 explain the importance of organising work to meet pre-determined schedules			
2 Know about monitoring procedures for quality of work	2.1 list the procedures for monitoring quality of work			
	2.2 evaluate the lines of reporting			
	2.3 state where to obtain advice and support to monitor quality			
	2.4 explain why it is important to make recommendations for continuous improvement			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know about monitoring procedures for throughput	3.1 explain the importance of monitoring throughput			
	3.2 describe types of monitoring systems and how they are used to monitor throughput			
	3.3 describe actions that can be taken to minimise problems affecting throughput			
	3.4 describe how to identify and solve problems which affect throughput			
	3.5 explain why monitoring and control systems are used			
4 Know how to record quality of work issues	4.1 explain why it is important to keep accurate and complete records			
	4.2 describe how to record problems			
	4.3 describe why corrective action plans are important			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Know about solving problems affecting throughput	5.1 describe how to identify and solve problems which affect throughput			
	5.2 evaluate how operational parameters affect the achievement of output targets			
	5.3 summarise the consequences of ineffective monitoring, control systems and processes			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 16: Carry Out Quality Audits in Food Operations

Unit reference number: L/602/4699

Level: 3

Credit value: 3

Guided learning hours: 9

Unit summary

This unit supports workforce development for those who carry out quality audits in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, carrying out quality audits in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Prepare for quality audits	1.1	give auditees the required notice period of the intention to audit			
	1.2	confirm responsibilities and procedures that apply to the work of an auditor			
2 Audit compliance against quality systems	2.1	carry out quality audits according to an agreed plan and schedule			
	2.2	agree corrective action and the date by which it should be carried out with auditees			
	2.3	complete records in accordance with agreed procedures			
	2.4	make appropriate recommendations for improvements to procedures to relevant people			
3 Complete post quality audit actions	3.1	make quality audit reports to authorised people in accordance with procedures			
	3.2	report discrepancies which hold serious or immediate risks for the business or organisation to relevant people			
	3.3	check with auditees that corrective action has been carried out by the agreed dates			
	3.4	report any persistent problems in achieving compliance with quality systems to relevant people			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 17: Understand How to Carry Out Quality Audits in Food Operations

Unit reference number: T/602/4700

Level: 3

Credit value: 3

Guided learning hours: 15

Unit summary

This unit supports workforce development for those who understand how to carry out quality audits, in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when carrying out quality audits in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know about quality auditing best practice	1.1 describe the principles of quality auditing			
	1.2 describe current trends and development in auditing listing examples of good industry practice			
	1.3 outline the impact of relevant legal, regulatory and ethical requirements impacting on auditing systems			
	1.4 outline the importance of conduct in auditing			
	1.5 describe the importance of an organisation's quality policies and procedures in auditing			
	1.6 describe how to evaluate actual practice against procedures in order to identify discrepancies			
	1.7 explain the organisation's plan and schedule for carrying out quality audits			
2 Know how to communicate audit results and recommendations	2.1 describe how to apply the principles and processes of effective communication			
	2.2 explain how to make recommendations for improvements			
	2.3 list people who need to receive reports, presentations and recommendations			
	2.4 explain organisational procedures and timing for communication and reporting			
	2.5 list people who can provide advice on quality auditing issues			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
3　Know how to interpret and action an auditor's report	3.1	list the records of the quality audit that are required			
	3.2	list the people who are authorised to see quality audit reports			
	3.3	describe how to conduct an audit investigation			
	3.4	describe how to identify appropriate corrective action and agree a reasonable date for it to be carried out			
	3.5	explain how to evaluate the risks which audit discrepancies may hold for an organisation			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 18: Develop Test Samples in Food Manufacture

Unit reference number: T/502/7408

Level: 3

Credit value: 3

Guided learning hours: 16

Unit summary

This unit supports workforce development for those who develop test samples in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, developing test samples in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Plan development activities	1.1	evaluate ideas for the product			
	1.2	produce clear objectives for the product			
	1.3	include relevant factors about the product in a realistic programme			
	1.4	bring together all resources identified to achieve the specification			
	1.5	plan accurate specifications for the product trials			
	1.6	agree scheduling of product tests with the relevant people			
2 Manage production of test samples	2.1	implement the tests in a systematic manner within an agreed timescale			
	2.2	make necessary adjustments during the trials to ensure compliance with requirements			
	2.3	amend provisional specifications in accordance with feedback from test samples			
	2.4	accurately establish the resource requirements for the product test samples			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Measure and record development activities	3.1 monitor the tests to obtain accurate and comprehensive feedback			
	3.2 record the outcomes of the product test samples			
4 Present final test samples	4.1 accurately establish how much the test samples conform with requirements			
	4.2 collate all outcomes of the product test samples			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 19: Understand How to Develop Test Samples in Food Manufacture

Unit reference number: A/502/7409

Level: 3

Credit value: 2

Guided learning hours: 15

Unit summary

This unit supports workforce development for those who understand how to develop test samples, in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when developing test samples in food manufacture. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know about product development activities	1.1 outline legalisative and ethical issues that may affect the project			
	1.2 describe how to assess the effect that new products could have on existing products			
	1.3 explain why effective planning is essential to project management			
	1.4 describe how to access and evaluate resources in terms of reliability, relevance and sufficiency			
	1.5 describe why it is important to agree project plans with those involved and the processes which may be used to achieve agreement			
	1.6 describe methods to communicate results at each stage of the process			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know about the development of food products	2.1 explain how to develop and use technical specification			
	2.2 describe the principles of processing techniques, in relation to the product being developed			
	2.3 describe how to develop and use technical specifications			
	2.4 explain how to work out costings			
	2.5 describe possible interactions between raw materials			
	2.6 evaluate the effect of raw materials to the product formulation			
	2.7 explain how functional ingredients contribute to the final product			
	2.8 explain packaging technology and how this affects the development of new products			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know about test samples	3.1 evaluate the shelf life of different products and ingredients			
	3.2 explain the factors that influence shelf life			
	3.3 describe shelf-life assessment and how to carry this out			
	3.4 describe the cooking characteristics of end products			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 20: Develop Product Specifications in Food Manufacture

Unit reference number:	M/502/7410
Level:	3
Credit value:	2
Guided learning hours:	14

Unit summary

This unit supports workforce development for those who develop product specifications in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, developing product specifications in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Construct a final specification	1.1	construct a specification on an accurate evaluation of the outcomes from product trials			
	1.2	define the production methods which will be used			
	1.3	define the production sequences which will be used			
2 Produce a production plan	2.1	agree the material, components and equipment requirements with the relevant people			
	2.2	specify all the necessary quality requirements and measure them			
	2.3	specify all the necessary methods to achieve and measure them			
	2.3	assess production costs			
	2.4	estimate final wholesale price of product			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Communicate the final specification to all relevant people	3.1 clearly define the final product characteristics 3.2 develop specifications that are clear and unambiguous 3.3 communicate the recommendations relating to manufacture to the relevant people			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 21: Understand How to Develop Product Specifications in Food Manufacture

Unit reference number:	T/502/7411
Level:	3
Credit value:	2
Guided learning hours:	12

Unit summary

This unit supports workforce development for those who understand how to develop product specifications, in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

and understanding of learners in the workplace context, when developing product specifications in food manufacture. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know about final product specification	1.1 describe the typical components of a specification			
	1.2 outline how to define and compile specifications			
	1.3 describe the relationship between quality assurance and a specification			
	1.4 outline the impact of legal issues on product specifications			
	1.5 describe how HACCP is used to augment the specification			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know about developing product plans	2.1 describe systems that enable the development process			
	2.2 state the reasons for accepting or rejecting specifications			
	2.3 describe how to analyse data from the trials			
	2.4 evaluate methods to measure outcomes of product trials			
	2.5 agree the material, components and equipment requirements with the relevant people			
	2.6 describe the factors involved in calculating production costs			
	2.7 describe the factors involved in estimating the final wholesale price of product			
	2.8 describe methods to agree the shelf life of the product			
	2.9 explain why hazard analysis and risk assessment should be included in the final specification			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know about communicating the final specification to all relevant people	3.1 state which people need to receive technical data about product manufacture 3.2 outline how to make recommendations relating to manufacture promptly 3.3 describe how to communicate technical data to relevant people and the importance of doing this			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 22: Evaluate and Improve Production in Food Manufacture

Unit reference number: A/502/7412

Level: 3

Credit value: 3

Guided learning hours: 16

Unit summary

This unit supports workforce development for those who evaluate and improve production in a food manufacturing business.

The unit is designed for use primarily by food manufacturing supervisors and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, when evaluating and improving production in food manufacture. It needs to be assessed on the job.

The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Evaluate assessments of the performance of operations within a food or drink manufacturing business	1.1 gather the relevant assessment			
	1.2 arrange for presentations and/or discussions to further understanding of the assessment of operational performance			
	1.3 use knowledge of operations monitoring, trends and developments to review the assessment evidence			
	1.4 analyse evidence to make judgements about operational performance			
	1.5 encourage and take into account input from colleagues when evaluating operational performance			
	1.6 present evaluation to the relevant people at an appropriate level and pace, giving opportunities for them to respond			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Agree objectives for an improvement programme	2.1	consider relevant outcomes that have resulted from the evaluation of operational performance			
		2.2	monitor operational activities at times most likely to identify potential improvements			
		2.3	encourage colleagues to contribute to ideas for improvements			
		2.4	present plans for implementing change to the relevant people			
		2.5	agree an improvement plan with the relevant people			
3	Implement and evaluate an improvement programme	3.1	initiate the improvement programme in a planned manner			
		3.2	confirm that those who will be affected understand the implications of change and their commitment to it			
		3.3	coordinate the activities necessary to implement the improvement programme, maintaining communication with those involved			
		3.4	monitor change, gathering sufficient information to evaluate the effectiveness of the improvements			
		3.5	report results of the change to the relevant people as required			
		3.6	enable agreed improvements to be incorporated into standard working practice			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
4 Report on the outcomes of the improvement programme	4.1	report improvements based upon information resulting from achieved operational change and other relevant information			
	4.2	report improvements in a way which shows how they have contributed to the achievement of the organisation's mission, aims and objectives			
	4.3	present the outcomes to the relevant people			
	4.4	engage in constructive discussions			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 23: Understand How to Evaluate and Improve Production in Food Manufacture

Unit reference number: F/502/7413

Level: 3

Credit value: 2

Guided learning hours: 15

Unit summary

This unit supports workforce development for those who evaluate and improve production in a food business.

The unit is designed for use primarily by food manufacturing supervisors and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when evaluating and improving production in food manufacture. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know how to evaluate assessments of production	1.1 explain how to evaluate assessments, reports and work activities to identify areas for improvement			
	1.2 describe the best means of monitoring organisational activity and gathering information			
	1.3 describe the key technical measures which contribute best to review and evaluation of production			
2 Know how to make recommendations for improvements	2.1 explain how to recommend improvements and construct a case for change			
	2.2 describe how to communicate and make recommendations			
	2.3 describe how to encourage and enable colleagues to make recommendations			
	2.4 explain how to motivate others to be committed to change and improvements			
	2.5 describe the types of information which inform reliable recommendations to plans			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to plan improvements	3.1 explain the principles of organisational planning and its effectiveness			
	3.2 explain how to handle discussions and actual and potential disagreements in a constructive manner			
	3.3 describe the organisation's mission, aims and objectives and how to plan within their framework			
	3.4 explain how to plan for change in a way that minimises adverse organisational effects			
	3.5 explain how to identify the broader implications of change			
	3.6 describe the current industry operational trends and developments			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 24: Control Energy Efficiency in Food Operations

Unit reference number: A/602/4701

Level: 3

Credit value: 3

Guided learning hours: 13

Unit summary

This unit supports workforce development for those who control energy efficiency in food operations.

The unit is designed for use primarily by team leaders/supervisors and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, controlling energy efficiency in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Maintain measures that support sustainable energy usage	1.1	obtain and interpret the organisation's sustainability targets for own area of responsibility			
	1.2	ensure production processes and working practices comply with:			
		– organisational targets			
		– quality specifications			
		– legal requirements			
	1.3	ensure production processes and working practices make efficient use of resources			
	1.4	monitor the working practices and evaluate energy usage and efficiency			
2 Promote measures that support sustainable energy usage	2.1	inform others of their responsibilities in relation to organisational targets to promote energy efficiency			
	2.2	support others in avoiding energy wastage			
	2.3	encourage others to overcome barriers, improve working practices and energy efficiency			
	2.4	provide training to improve energy efficiency			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Promote the development of sustainable energy usage	3.1 identify and make opportunities to encourage others to adopt more energy-efficient working practices			
	3.2 develop and communicate to others recommendations for efficiency improvements			
	3.3 present recommendations that support the further development of sustainable practice: – at an appropriate time – with the right level of detail			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 25: Control Waste Minimisation in Food Operations

Unit reference number: F/602/4702

Level: 3

Credit value: 3

Guided learning hours: 16

Unit summary

This unit supports workforce development for those who control waste minimisation in food operations.

The unit is designed for use primarily by team leader/supervisors and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, who control waste minimisation in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria.

This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Maintain measures that support waste minimisation	1.1 obtain and interpret organisational sustainability targets for own area of responsibility			
	1.2 ensure production processes and working practices comply with: – organisational targets – quality specifications – legal requirements			
	1.3 ensure production processes and working practices make efficient use of resources and avoid waste			
	1.4 monitor the working practices and evaluate waste levels within own area of responsibility			
2 Promote measures that support waste minimisation	2.1 inform others of their responsibilities in relation to organisational targets that promote waste minimisation			
	2.2 support others to avoid and minimise waste			
	2.3 encourage others to overcome barriers, improve working practices and reduce waste			
	2.4 provide training to minimise waste in own area of responsibility			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Promote the development of sustainability through waste minimisation	3.1 identify and make opportunities to encourage others to adopt more sustainable working practices 3.2 develop and communicate to others recommendations for waste reduction 3.3 present recommendations that support the further development of sustainable practice: – at an appropriate time – with the right level of detail			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 26: Understand How to Control Waste Minimisation in a Food Operations

Unit reference number: J/602/4703

Level: 3

Credit value: 3

Guided learning hours: 24

Unit summary

This unit supports workforce development for those who minimise waste, in a food environment.

The unit is designed for use primarily by team leaders/supervisors and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when minimising waste. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know what the requirements are for minimising waste in a food environment	1.1 describe the impact of waste on the environment			
	1.2 explain how waste minimisation supports sustainable food manufacture			
	1.3 explain how legislation impacts on the management and disposal of waste			
	1.4 describe the sources of advice and guidance regarding waste reduction			
	1.5 explain why segregation is important in the management of waste			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to minimise waste produced by the organisation	2.1 describe the organisation's targets for: – waste reduction – re-use – recycling 2.2 explain how product and process design can have an impact on the generation of waste 2.3 describe the different types of waste generated within own area of responsibility 2.4 describe the opportunities available for reducing waste within own area of responsibility 2.5 describe the factors that limit recycling and re-use within own area of responsibility 2.6 explain how failure to meet organisational quality specifications can impact on waste targets			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to promote waste minimisation by the organisation	3.1 describe the potential benefits of waste minimisation to the organisation			
	3.2 explain how others can impact on the generation of waste			
	3.3 explain how staff training and development at work can help minimise waste			
4 Know how to maintain waste minimisation within the organisation	4.1 explain how the management and organisation of work can help minimise waste			
	4.2 describe how to monitor waste within own area of responsibility			
	4.3 describe the barriers that can limit the impact on the management of waste and how these barriers can be overcome			
	4.4 explain how to assess the effectiveness of waste management systems			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 27: Control Water Usage in Food Operations

Unit reference number: L/602/4704

Level: 3

Credit value: 3

Guided learning hours: 16

Unit summary

This unit supports workforce development for those who control water usage in food operations.

The unit is designed for use primarily by team leaders/supervisors and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, control water usage in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Maintain measures that support sustainable water usage	1.1 obtain and interpret organisational sustainability targets for own area of responsibility			
	1.2 ensure production processes and working practices comply with: – organisational targets – quality specifications – legal requirements			
	1.3 ensure production processes and working practices make efficient use of resources in own area of responsibility			
	1.4 monitor the working practices and evaluate water usage and efficiency in own area of responsibility			
2 Promote measures that support sustainable water usage	2.1 inform others of their responsibilities in relation to organisational targets that promote efficient water usage			
	2.2 support others to avoid wasting water			
	2.3 encourage others to overcome barriers and improve working practices and water efficiency			
	2.4 provide training to improve water efficiency			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Promote the development of sustainable water usage	3.1 identify and make opportunities to encourage others to adopt more water efficient working practices			
	3.2 develop and communicate to others recommendations for efficiency improvements			
	3.3 present recommendations that support the further development of sustainable practice: – at an appropriate time – with the right level of detail			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 28: Understand How to Control Water Usage in Food Operations

Unit reference number: R/602/4705

Level: 3

Credit value: 3

Guided learning hours: 25

Unit summary

This unit supports workforce development for those who control water usage in food operations.

The unit is designed for use primarily by team leaders/supervisors and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling water usage in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know what the requirements are for controlling water usage in food operations	1.1 explain how legislation impacts on the organisation's water usage and disposal			
	1.2 describe the impact of water usage on the environment			
	1.3 explain how the management of water supports sustainable food manufacture			
2 Know how to control the use of water within the organisation	2.1 explain how, within the organisation, water is: – obtained – treated – used – recycled – re-used – discharged			
	2.2 describe the organisation's water quality standards			
	2.3 describe the organisation's targets for water usage			
	2.4 explain how water usage is controlled and minimised within own area of responsibility			
	2.5 explain how failure to meet the organisation's quality specifications can impact on water usage			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to promote the efficient use of water within the organisation	3.1 explain how others can impact on water usage			
	3.2 explain how staff training and development can help to maintain the efficient use of water			
4 Know how to maintain efficient water usage measures within the organisation	4.1 explain how the management and organisation of work can help minimise water usage			
	4.2 explain how and why water usage is monitored and controlled within own area of responsibility			
	4.3 describe how to identify potential sources of water pollution within own area of responsibility			
	4.4 describe the barriers that can limit the impact of water management and how these barriers can be overcome			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 29: Control Transport Efficiency in Food Operations

Unit reference number: Y/602/4706

Level: 3

Credit value: 3

Guided learning hours: 16

Unit summary

This unit supports workforce development for those who control transport efficiency in food operations.

The unit is designed for use primarily by team leaders/supervisors and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, control transport efficiency in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Maintain measures that support sustainable transport usage	1.1 obtain and interpret organisational sustainability targets for own area of responsibility 1.2 ensure working practices comply with: – organisational targets – quality specifications – legal requirements 1.3 ensure transportation makes efficient use of resources 1.4 monitor the working practices and evaluate energy usage and efficiency			
2 Promote measures that support sustainable transport usage	2.1 inform others of their responsibilities in relation to organisational targets that promote transport efficiency 2.2 support others to avoid waste 2.3 encourage others to overcome barriers and improve working practices and transport efficiency 2.4 provide training to encourage transport efficiency			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Promote the development of sustainable transport	3.1 identify and make opportunities to encourage others to adopt more efficient working practices 3.2 develop and communicate to others recommendations for efficiency improvements 3.3 present recommendations that support the further development of sustainable practice: – at an appropriate time – with the right level of detail			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 30: Understand How to Control Transport Efficiency in Food Operations

Unit reference number: D/602/4707

Level: 3

Credit value: 3

Guided learning hours: 25

Unit summary

This unit supports workforce development for those who control transport efficiency in food operations.

The unit is designed for use primarily by team leaders/supervisors and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when controlling energy efficiency in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know what the requirements are for controlling transport efficiency in food operations	1.1 explain how legislation impacts on organisational transport usage			
	1.2 describe the impact of transport on carbon emissions			
	1.3 explain how transport efficiency supports sustainable food manufacture			
	1.4 describe the sources of advice and guidance regarding transport efficiency			
	1.5 describe the environmental, economic and social cost of food miles			
	1.6 explain how food miles are determined			
2 Know how to control transport efficient within the organisation	2.1 explain how organisational transport efficiency can help reduce the organisation's carbon footprint			
	2.2 describe the opportunities available to an organisation for reducing food miles			
	2.3 describe the organisation's targets and standards for reducing transport usage			
	2.4 describe the measures used within the organisation to reduce transport usage			
	2.5 explain how failure to meet the organisation's quality specifications can impact on transport usage			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to promote transport efficiency within the organisation	3.1 describe the benefits of transport efficiency to the organisation			
	3.2 describe how others can impact on transport usage			
	3.3 describe the roles and responsibilities for all those involved in improving transport efficiency			
	3.4 explain how staff training and development can help improve transport efficiency			
4 Know how to maintain transport efficiency within the organisation	4.1 explain how the management and organisation of transport can help minimise energy usage			
	4.2 explain how to monitor transport usage efficiency			
	4.3 describe the barriers that can limit the impact of energy reduction initiatives and how these barriers can be overcome			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 31: Monitor and Control Waste Disposal in Food Operations

Unit reference number: T/602/0646

Level: 3

Credit value: 3

Guided learning hours: 15

Unit summary

This unit supports workforce development for those who monitor and control waste disposal in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, monitoring and controlling waste disposal in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Organise and control the storage and handling of waste	1.1 deposit separated waste into the specified storage locations in accordance with operational and statutory requirements			
	1.2 maintain waste storage areas and monitor them so that the specified levels are not exceeded			
	1.3 check that storage conforms to operational and statutory requirements			
	1.4 handle separated waste in ways which eradicate:			
	– the risks of cross-contamination			
	– environmental nuisance			
	– reduction of the commercial value of the waste			
	– breach of statutory requirements			
	1.5 complete the documentation and make it available to the relevant people			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Organise and control the disposal of waste and despatch of by-products	2.1 organise their own and others' work practices to enable the despatch of by-products and the disposal of waste to be carried out in accordance with operational and statutory requirements			
	2.2 take corrective action when problems occur within the limits of own authority, and report the actions taken to the relevant people			
	2.3 dispatch by-products to their specified destinations in accordance with operational and statutory requirements			
	2.4 dispose of waste in accordance with operational and statutory requirements			
	2.5 handle by-products and waste in ways which eradicate the risks of cross-contamination and non-conformance to operational and statutory requirements			
	2.6 complete the documentation and make it available to the relevant people			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 32: Understand How to Monitor and Control Waste Disposal in Food Operations

Unit reference number: M/602/4517

Level: 3

Credit value: 3

Guided learning hours: 29

Unit summary

This unit supports workforce development for those who understand how to monitor and control waste disposal, in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when monitoring and controlling waste disposal in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know how to monitor and control waste disposal in food operations	1.1 outline the work practices to adopt and policies, procedures and instructions to follow when controlling waste disposal			
	1.2 explain how operational requirements affect work practices			
	1.3 explain the statutory regulations, applicable to the control and disposal of waste, and the importance of conforming to them			
	1.4 describe how to complete documentation and explain why accurate records are important			
	1.5 outline the recording and reporting procedures			
	1.6 state who problems should be reported to			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to control and organise waste separation	2.1 explain how to identify and solve problems 2.2 explain what cross-contamination is and its effects on waste separation 2.3 explain how to evaluate the risks of cross-contamination and how to reduce them 2.4 explain what constitutes environmental nuisance and how it can be minimised or avoided 2.5 explain how to maximise yield and minimise waste and the effect this has on the product and on the organisation			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to control and organise the storage and handling of waste	3.1 describe how to handle and dispose of waste			
	3.2 describe how to deposit waste in the specified storage locations and the importance of this			
	3.3 outline the storage requirements of waste and how to check they are met			
	3.4 describe the monitoring requirements relating to storing waste			
	3.5 describe how to monitor the waste storage areas and the implications of poor maintenance			
	3.6 explain the potential effects of storing waste above specified levels and the importance of not doing so			
	3.7 explain the quality specifications to achieve and how handling and storage techniques affect them			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 33: Plan Production Schedules in Food Manufacture

Unit reference number: J/502/7414

Level: 3

Credit value: 3

Guided learning hours: 21

Unit summary

This unit supports workforce development for those who plan production schedules in a food manufacturing business.

The unit is designed for use primarily by food manufacturing supervisors and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, when planning production schedules in food manufacture. It needs to be assessed on the job.

The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Manage work in teams	1.1	set work objectives for the team			
	1.2	give the team opportunities to take responsibility for their own work and assist with the planning process			
2 Allocate resources to meet production plans	2.1	ensure the requirements of the production plans are clear			
	2.2	produce schedules which are consistent with: – production plans – management priorities and objectives – legal and standard operating requirements			
	2.3	produce schedules which make cost-effective use of available resources within given constraints			
	2.4	seek advice from the relevant people if production schedules appear to conflict with legal requirements and/or organisational objectives			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Ensure availability of resources to meet production plans	3.1 keep colleagues informed of production schedules, and particularly any changes, to ensure they can plan their work			
	3.2 confirm that equipment required is available and in good working order before production starts			
	3.3 confirm that the specified type and volume of materials are available, in the specified location for production			
	3.4 ensure that all equipment and materials are ready for use and conform to legal and standard operational requirements			
	3.5 confirm that the required number of staff, with the appropriate skills and knowledge, are available			
	3.6 inform the relevant people immediately if lack of resources will affect production output			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
4 Avoid production problems	4.1	report all damage and faults, with recommendations for corrective action			
	4.2	manage risk and ensure a hazard-free workplace			
5 Maintain accurate and clear records	5.1	maintain all records relating to resources and ensure they are available to management			
	5.2	monitor record and report on all instances of non-compliance with quality requirements			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 34: Understand How to Plan Production Schedules in Food Manufacture

Unit reference number: L/502/7415

Level: 3

Credit value: 2

Guided learning hours: 14

Unit summary

This unit supports workforce development for those who plan production schedules in a food manufacturing business.

The unit is designed for use primarily by food manufacturing supervisors and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when planning production schedules in food manufacture. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know how to assess production requirements and capabilities	1.1 describe the operational status of resources and why this is important			
	1.2 describe how to analyse the availability and use of resources			
	1.3 describe the requirements for storage, moving and delivery to production locations of: – raw materials – ingredients – non-food materials			
	1.4 explain the hazard and risk that may arise in food and drink operations			
	1.5 explain the contingencies and corrective actions to be taken			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
2 Know how to plan production schedules	2.1	describe the production forecasting and planning processes			
	2.2	describe the systems and procedures for production scheduling			
	2.3	explain the importance of production scheduling and the potential impact of inadequate scheduling			
	2.4	explain how to form and manage work in teams			
	2.5	explain how to set and review work objectives			
	2.6	describe the key features of legal and standard operating requirements			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to maintain production schedules	3.1 explain the need to update and amend schedules and adapt resource requirements to meet changing customer demands			
	3.2 explain the importance of liaison with colleagues and what would happen if they were not kept informed			
	3.3 describe different communication methods and styles			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 35: Monitor and Report on Production Progress in Food Manufacture

Unit reference number: R/502/7416

Level: 3

Credit value: 2

Guided learning hours: 9

Unit summary

This unit supports workforce development for those who monitor and report on production progress in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, monitoring and reporting on production progress in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Monitor production progress	1.1 monitor the use of tools and equipment throughout the production process according to specified procedures			
	1.2 ensure use of tools and equipment complies with legal and standard operational procedures and the production schedule			
	1.3 monitor the operation of safety devices and security locks according to specified procedures			
2 Report and maintain records on production progress	2.1 report on production issues affecting the progress of production or the quality of the product or safety of personnel			
	2.2 complete production and equipment records and documentation			
	2.3 file records in the appropriate place to ensure that authorised personnel have access to current and accurate production information			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 36: Understand How to Monitor and Report On Production Progress in Food Manufacture

Unit reference number: Y/502/7417

Level: 3

Credit value: 2

Guided learning hours: 12

Unit summary

This unit supports workforce development for those who need to understand how to monitor and report on production progress, in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when monitoring and reporting on production progress in food manufacture. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know how to monitor production progress	1.1 explain the importance of monitoring and reporting production progress			
	1.2 outline the key features of legal and operational requirements			
	1.3 explain how to use and interpret standard operational procedures and schedules			
	1.4 explain how to deal with non-compliance issues			
	1.5 outline operational limits and tolerances of equipment and machinery			
	1.6 describe how to diagnose faults within the limits of own responsibility for tools, equipment and products			
2 Know how to report and maintain records on production progress	2.1 describe the requirements for and use of scheduling and equipment maintenance			
	2.2 explain how to access and interpret equipment maintenance records			
	2.3 explain how to report and make recommendations resulting from fault diagnosis			
	2.4 describe the requirements for and use of quality control documentation			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 37: Carry Out Process Control in Food Manufacture

Unit reference number: D/502/7418

Level: 3

Credit value: 2

Guided learning hours: 11

Unit summary

This unit supports workforce development for those who carry out process control in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, carrying out process control in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Be able to carry out quantitative checking procedures	1.1	prepare equipment and materials to carry out quantitative checks			
	1.2	collect the items, products or materials to be checked			
	1.3	carry out checking procedures following legal and standard operating requirements			
	1.4	record the results of the checks carried out immediately after each check is completed			
	1.5	follow standard operating procedures to deal with any problems revealed by the checks			
	1.6	pass the results of checks to the relevant people			
2 Be able to carry out instrumentation checks	2.1	assemble the equipment and documentation to carry out instrumentation checks			
	2.2	identify the checks to be made on instruments and when and where they should be checked			
	2.3	check the instruments are working and take accurate readings			
	2.4	record readings taken or observations made			
	2.5	follow standard operating procedures to deal with situations when instrument readings do not meet specifications			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 38: Understand How to Carry Out Process Control in Food Manufacture

Unit reference number: H/502/7419

Level: 3

Credit value: 2

Guided learning hours: 15

Unit summary

This unit supports workforce development for those who need to understand how to carry out process control, in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when carrying out process control in food manufacture. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the requirements of process control	1.1 describe the controls relating to checking operations			
	1.2 explain why it is important to record information for process control checks			
	1.3 explain why it is important to validate processing and production			
	1.4 explain why the tolerances set are important			
	1.5 detail the legislation relating to process and production control			
2 Understand how to carry out quantitative checking procedures	2.1 describe the equipment used in quantitative checking operations			
	2.2 explain how to prepare equipment to carry out quantitative checks			
	2.3 explain the definition and extent of process controls			
	2.4 outline the key quantitative controls			
	2.5 describe the type of information that can be gathered from process control checks and its uses			
	2.6 describe the action to be taken when results are out of line with specification			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand how to carry out instrument checks	3.1 describe the instrumentation used in processing operations 3.2 explain how to read instruments 3.3 explain how to check that instruments are working 3.4 state how often instruments should be checked and who should check them			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 39: Produce Production Specifications in Food Manufacture

Unit reference number: Y/502/7420

Level: 3

Credit value: 3

Guided learning hours: 14

Unit summary

This unit supports workforce development for those who produce production specifications in a food business.

The unit is designed for use primarily by team leaders/managers and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, producing production specifications in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Check and assess criteria	1.1 obtain and record the opinions of relevant people on the appropriateness and validity of criteria			
	1.2 assess the criteria incorporated in the specification			
	1.3 identify the inputs, outputs and intermediate stages of products and processes			
2 Develop and confirm validity of specifications	2.1 develop specifications which are:			
	– cost-effective and make best use of resources			
	– contain accurate, legible and consistent information			
	– allow for acceptable deviations and concessions based on justifiable reasons			
	– conform to statutory and operational requirements			
	2.2 confirm the validity of the sampling, checking and testing procedures to be used			
	2.3 check and confirm that the specification is achievable			
	2.4 identify problems and take relevant corrective action			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 40: Understand How to Produce Production Specifications in Food Manufacture

Unit reference number: M/502/7584

Level: 3

Credit value: 2

Guided learning hours: 13

Unit summary

This unit supports workforce development for those who need to understand how to contribute to the development of production specifications in a food business.

The unit is designed for use primarily by Operatives and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when contributing to the development of production specifications in food manufacture. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know how to develop production specifications	1.1 summarise the key statutory regulations that affect specification development			
	1.2 explain who to consult with during the development of production specifications and the importance of this			
	1.3 outline methods used to consult with others during specification development			
	1.4 explain how to select, develop and check the validity of criteria to be included in specifications and how to ensure they are relevant to customer, product and process requirements			
	1.5 outline how to develop specifications for approval			
2 Know how to monitor specifications	2.1 explain sampling methods and techniques used to check specifications and how to assess their validity			
	2.2 explain how to assess criteria and identify inputs, outputs, and intermediate stages of production and process			
	2.3 outline how to check the specification is achievable			
	2.4 outline how to assess the cost and resource effectiveness of specifications			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to deal with problems, deviations and concessions	3.1 summarise actions to be taken when specifications fail to meet customer product and process requirements 3.2 outline the effect of deviations and concessions in specifications 3.3 explain what constitutes acceptable deviations and concessions and how to incorporate them into specifications			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 41: Start Up Multi-stage Operations in Food Manufacture

Unit reference number: T/502/7490

Level: 3

Credit value: 2

Guided learning hours: 9

Unit summary

This unit supports workforce development for those who start up multi-stage operation in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, starting up multi-stage operations in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Prepare to start up multi-stage operations	1.1	evaluate the effectiveness of start-up procedures			
		1.2	make recommendations for improvements to procedures to the relevant people			
		1.3	establish and maintain communication with managers and colleagues			
		1.4	ensure that all necessary plant, equipment, materials and services are available and fit for use			
2	Start up multi-stage operations	2.1	ensure that required instrumentation is working to specifications and take relevant action in response to any faults			
		2.2	ensure that plant is configured to achieve optimum performance			
		2.3	ensure that start-up is in accordance with procedures and uses resources efficiently			
		2.4	evaluate faults for impact on operations and take appropriate action within the limits of own authority			
		2.5	complete necessary documentation and process it according to specified procedures			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 42: Understand How to Start Up Multi-stage Operations in Food Manufacture

Unit reference number: K/502/7471

Level: 3

Credit value: 2

Guided learning hours: 11

Unit summary

This unit supports workforce development for those who understand how to start up multi-stage operations in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when starting up multi-stage operations in food manufacture. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know how to start up multi-stage operations	1.1 explain how the start-up process works			
	1.2 describe the procedures for start-up and explain why it is important to follow them			
	1.3 explain how to access and interpret the relevant plant, process, equipment and materials specifications			
	1.4 explain the lines and methods of communication and importance of using them			
	1.5 explain the documentation requirements why it is important to meet them			
	1.6 outline limits of own authority and competence and why it is important to work within them			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to deal with problems arising during the start-up of operations	2.1 describe the main types of equipment malfunction 2.2 explain how to use problem-solving and diagnostic techniques and the importance of this 2.3 explain how faults can impact on operations			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 43: Shut Down Multi-stage Operations in Food Manufacture

Unit reference number: M/502/7472

Level: 3

Credit value: 2

Guided learning hours: 9

Unit summary

This unit supports workforce development for those who shut down multi-stage operations in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, shutting down multi-stage operations in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1　Prepare to shut down multi-stage operations	1.1	maintain communication with managers and colleagues			
	1.2	ensure that plant shut-down times and durations optimise efficiency			
	1.3	ensure that the plant is shut down efficiently			
2　Shut down multi-stage operations	2.1	shut down designated plant, equipment and associated services in accordance with procedures			
	2.2	deal with residual materials in a manner which optimises their future use			
	2.3	ensure that plant and equipment are safe, secure and fit for purpose so that operations can continue when necessary			
	2.4	evaluate the effectiveness of shut-down procedures for effectiveness			
	2.5	make recommendations for improvements to procedures to relevant people			
	2.6	complete documentation and process it according to specified procedures			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 44: Understand How to Shut Down Multi-stage Operations in Food Manufacture

Unit reference number: F/502/7475

Level: 3

Credit value: 2

Guided learning hours: 9

Unit summary

This unit supports workforce development for those who understand how to shut down multi-stage operations in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when shutting down multi-stage operations in food manufacture. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know how to shut down multi-stage operations in food manufacture	1.1 outline the limits of own authority and competence and why it is important to work within them			
	1.2 explain why it is important to use the lines and methods of communication available			
	1.3 outline the importance of meeting documentation requirements			
	1.4 outline the procedures for dealing with residual materials and the importance of following them			
	1.5 describe what happens after shut-down and how this influences actions			
	1.6 explain the procedures for shut-down and the importance of following them			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 45: Manage Customer Service in Own Area of Responsibility

Unit reference number:	D/600/9804
Level:	3
Credit value:	4
Guided learning hours:	25

Unit summary

This unit will ensure that learners are able to explain customer service standards to support staff and monitor customer service performance in their own area of responsibility.

Assessment methodology

This unit is assessed using evidence from the workplace, ie observable performance, physical products of work (such as reports, plans, correspondence etc), witness testimony, discussion and questioning etc.

Simulation is not allowed.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Be able to establish and communicate measurable customer service standards for own area of responsibility	1.1 state organisational, legal and regulatory requirements for customer service standards			
	1.2 explain expected standards for customer service performance to employees in own area of responsibility			
	1.3 describe measurement criteria to monitor customer service performance			
2 Be able to support staff in meeting customer service standards	2.1 identify staff and other resources to meet customer service standards			
	2.2 communicate roles and responsibilities to employees and provide support			
	2.3 describe how to resolve customer service queries within own organisation's policy			
3 Be able to monitor and evaluate customer service performance, systems and processes	3.1 monitor customer service performance against established criteria			
	3.2 analyse feedback from staff and customers on the quality of customer service			
	3.3 evaluate customer feedback and identify areas for improvement			
	3.4 recommend changes to customer service processes or standards based on performance evaluation			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 46: Monitor and Evaluate Customer Service in Food Operations

Unit reference number: K/502/7423

Level: 3

Credit value: 4

Guided learning hours: 19

Unit summary

This unit supports workforce development for those who monitor and evaluate customer service in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, monitoring and evaluating customer service in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Plan to ensure reliable customer service in food operations	1.1 develop and agree workplans and schedules with relevant people 1.2 organise others to respond to the needs of customers 1.3 provide information and advice to team members to support the provision of reliable customer service 1.4 identify and meet product knowledge needs of team members 1.5 seek advice when decisions about ensuring customer service are needed 1.6 organise supplies of materials and products to meet customer needs			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
2　Monitor sales and evaluate customer service in food operations	2.1	analyse sales and customer service records to identify opportunities for improvements			
	2.2	produce and agree plans and criteria for evaluating customer service			
	2.3	assess customer feedback to identify potential improvements in products and services			
	2.4	collect feedback on service from customers and colleagues			
	2.5	evaluate customer feedback and suggestions from colleagues for the improvement to customer service			
	2.6	recommend improvements in customer service			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Maintain effective and efficient customer service in food operations	3.1 organise team members' work to meet customer service expectations			
	3.2 give practical support to colleagues to provide effective customer service during busy periods			
	3.3 monitor stocks of materials and products in order to ensure that adequate supplies are available to meet customer demand			
	3.4 implement improvements in customer service			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 47: Understand How to Monitor and Evaluate Customer Service in Food Operations

Unit reference number: M/502/7424

Level: 3

Credit value: 3

Guided learning hours: 21

Unit summary

This unit supports workforce development for those who understand how to monitor and evaluate customer service, in a food business.

The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when monitoring and evaluating customer service. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know how to contribute to sales through ensuring reliable customer service	1.1 explain why and how work schedules and workloads are planned to meet customer needs			
	1.2 explain how to ensure that supplies of materials and products are available			
	1.3 describe how to identify customer needs in food operations and how to organise the work of team members to respond to those needs			
	1.4 describe how to provide information and advice about customer service			
	1.5 explain how to seek advice about customer service decisions			
	1.6 describe how to identify and resolve a lack of required customer service knowledge or skills among others			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to monitor sales and evaluate customer service in food operations	2.1 describe how to complete documentation about customer service to make it available for others			
	2.2 explain the purpose of monitoring the volume of customer service complaints			
	2.3 describe how to monitor and assess customer feedback and the importance of doing so			
	2.4 describe how to identify potential improvements in customer service			
	2.5 outline ways in which feedback can be obtained from customers			
	2.6 explain the importance of ensuring that recommendations for improvements in customer service offer benefits for customers and the organisation			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to maintain effective and efficient customer service in food operations	3.1 define how statutory regulations affect customer service delivery			
	3.2 explain how to implement improvements in customer service			
	3.3 describe the product and material types that should be monitored to improve customer service in food operations			
	3.4 explain how to monitor product and material stocks in food operations			
	3.5 describe how to assess and revise customer service policies and procedures			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 48: Monitor and Maintain Standards of Conduct in Food Manufacture

Unit reference number: H/502/7422

Level: 3

Credit value: 2

Guided learning hours: 9

Unit summary

This unit supports workforce development for those who maintain required standards of conduct in a food manufacture business. The unit is designed for use primarily by food manufacturing supervisors and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace when monitoring and maintaining standards of conduct in food manufacture. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Promote the required standards of conduct	1.1	set a good example with the way you behave by complying with the required standards of conduct			
	1.2	treat all matters relating to staff conduct with the necessary level of confidentiality			
	1.3	ensure the importance of meeting the required standards of conduct are communicated to staff			
	1.4	take action which is designed to be positive and encourage improvement on the part of the individual or team			
2 Communicate the required standards of conduct and what will happen if those standards are not met	2.1	keep staff informed of the required standards of conduct in a manner and at a level and pace appropriate to the individual and the situation			
	2.2	offer advice in a positive manner			
	2.3	arrange further support where it is required			
	2.4	inform staff of the current disciplinary and grievance procedures relevant to them in a manner and at a level and pace appropriate to the individual and the situation			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Allow staff opportunities to give feedback	3.1 provide opportunities for individuals to discuss problems which directly or indirectly affect their conduct			
	3.2 provide opportunities for staff to contribute suggestions for improvements in staff conduct			
	3.3 respond to concerns about staff conduct in a manner which is designed to encourage improvement on the part of individuals			
4 Record and report on issues relating to standards of conduct	4.1 establish any potential difference from the required standards			
	4.2 keep records which are accessible to the relevant people of discussions, action taken and outcomes			
	4.3 present recommendations to the relevant people for further action and improvement to staff conduct			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 49: Understand How to Monitor and Maintain Standards of Conduct in Food Manufacture

Unit reference number: D/502/7421

Level: 3

Credit value: 3

Guided learning hours: 13

Unit summary

This unit supports workforce development for those who understand how to monitor and maintain standards of conduct, in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when monitoring and maintaining standards of conduct in food manufacture. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Know what the requirements are for monitoring standards of conduct	1.1	outline the organisational standards			
		1.2	explain how to communicate taking into account the needs and requirements of others			
		1.3	explain why confidentiality is important and ways to maintain it			
		1.4	explain why it is important to demonstrate impartiality and equality of opportunity			
2	Know how to maintain standards of conduct	2.1	describe how to motivate others			
		2.2	describe own level of responsibility and competence			
		2.3	explain how to provide leadership and its importance			
		2.4	explain why it is important to lead by example			
		2.5	explain how to take action that encourages people to improve			
		2.6	describe how to recognise people's needs for help and ways to respond to those needs			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to deal with unacceptable conduct	3.1 explain why it is important to report differences from the required standards of conduct to relevant people			
	3.2 describe how to deal with conflict and stressful situations			
	3.3 outline the disciplinary and grievance procedures			
	3.4 outline what the organisational and legal requirements are and their application to an actual situation			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 50: Set Up and Maintain Food Service Operations

Unit reference number: F/602/4585

Level: 3

Credit value: 2

Guided learning hours: 14

Unit summary

This unit supports workforce development for those who set up and maintain food service operations in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, setting up and maintaining food service operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Prepare for food service operations	1.1 agree and confirm standards and targets for food service operations to meet business requirements			
	1.2 allocate tasks and instruct relevant people to ensure that standards and targets are met			
	1.3 provide support and supervision to enable the team to meet specified targets and standards			
	1.4 allocate resources to ensure that standards and targets are met			
2 Maintain the effectiveness and efficiency of food service operations	2.1 check that standards and targets are being met			
	2.2 identify and resolve problems in food service operations within the limit of own responsibilities			
	2.3 measure work outputs and achievements against targets to identify potential improvements			
	2.4 ensure that all records and documentation are legible, accurate and complete			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 51: Monitor Effectiveness of Food Service Operations

Unit reference number: J/602/4586

Level: 3

Credit value: 2

Guided learning hours: 14

Unit summary

This unit supports workforce development for those who monitor effectiveness of food service operations in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, monitoring effectiveness of food service operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Monitor food service operations	1.1	monitor food service operations against targets			
	1.2	check that the quality of the products and customer service are maintained			
	1.3	adapt allocation of work activities to meet changing priorities and targets			
	1.4	report to the relevant people factors influencing effectiveness which are outside own area of responsibility			
	1.5	make recommendations to the relevant people to improve food service operations			
2 Control risk in the workplace	2.1	monitor safe use of all tools and equipment to minimise risk			
	2.2	identify potential and actual hazards and take corrective action to deal with them			
	2.3	ensure food safety operations comply with organisational and legal requirements			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 52: Understand How to Set Up and Maintain Food Service Operations

Unit reference number: L/602/4587

Level: 3

Credit value: 2

Guided learning hours: 16

Unit summary

This unit supports workforce development for those who understand how to set up and maintain food service operations, in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know how to set up food service operations	1.1 outline the key features of legal and operational requirements			
	1.2 outline the standard operating procedures for food service operations			
	1.3 explain how to set and agree targets for food service operations			
2 Know how to maintain food service operations	2.1 explain why it is important to have cost-effective and efficient food service operations			
	2.2 explain why it is important to work to targets and standards			
	2.3 describe what action to take on variances and non-compliance in maintaining conditions			
	2.4 describe the corrective action and procedures to follow when dealing with contingencies			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 53: Analyse and Report Data

Unit reference number: Y/601/2538

Level: 3

Credit value: 6

Guided learning hours: 30

Unit summary

This unit is about analysing and reporting data that meets the aims and objectives of the research.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand how to organise and evaluate data that has been researched	1.1 describe purpose and benefits of organising data so that it can be analysed			
	1.2 explain how to evaluate the relevance, validity and reliability of data			
	1.3 explain how to analyse and prepare researched data so results will be accurate and free from bias			
	1.4 explain the differences between primary and secondary research methods			
	1.5 explain the differences between quantitative and qualitative research methods			
	1.6 describe how to search for relevant data sources			
2 Understand how to report data that has been researched	2.1 describe ways of reporting data so that it: – meets agreed aims and objectives – is accurate and free from bias			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Be able to analyse and evaluate data	3.1 organise data so that it can be analysed and reported			
	3.2 select relevant, valid and reliable data to analyse			
	3.3 apply analysis and evaluation techniques, as required			
	3.4 review data to produce accurate, unbiased results and conclusions			
	3.5 check the accuracy of the analysis, and make adjustments, if required			
	3.6 obtain feedback on data analysis, if required			
4 Be able to report data	4.1 present data in agreed format			
	4.2 present data to agreed timescale			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 54:   Manage Personal Development

Unit reference number: F/600/9469

Level: 2

Credit value: 4

Guided learning hours: 20

Unit summary

This unit will ensure that learners can identify and assess progress against performance requirements in own work role.

Assessment methodology

This unit is assessed using evidence from the workplace, ie observable performance, physical products of work (such as reports, plans, correspondence etc), witness testimony, discussion and questioning etc.

Simulation is not allowed.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Be able to identify and agree performance requirements of own work role	1.1 outline work role performance requirements with those they report to			
2 Be able to measure and progress against objectives	2.1 identify ways that progress will be measured against own work objectives			
3 Be able to identify gaps in skills and knowledge in own performance	3.1 explain knowledge and skills required for own work role 3.2 identify opportunities and resources available for personal development 3.3 produce a development plan to address own needs and agree with line manager			
4 Be able to carry out and assess activities within own development plan	4.1 plan activities in own development plan that address identified needs 4.2 collect feedback from colleagues on the result of development activities on own performance 4.3 assess the success of activities carried out as part of own development plan			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 55: Set Objectives and Provide Support for Team Members

Unit reference number: M/600/9600

Level: 3

Credit value: 5

Guided learning hours: 35

Unit summary

This unit helps learners to set and support individuals and teams to achieve objectives.

Assessment methodology

This unit is assessed using evidence from the workplace, ie observable performance, physical products of work (such as reports, plans, correspondence etc), witness testimony, discussion and questioning etc.

Simulation is not allowed.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Be able to communicate a team's purpose and objectives to the team members	1.1	describe the purpose of a team			
	1.2	set team objectives with its members which are SMART (Specific, Measurable, Achievable, Realistic and Time-bound)			
	1.3	communicate the team's purpose and objectives to its members			
2 Be able to develop a plan with team members showing how team objectives will be met	2.1	discuss with team members how team objectives will be met			
	2.2	ensure team members to participate in the planning process and think creatively			
	2.3	develop plans to meet team objectives			
	2.4	set SMART personal work objectives with team members			
3 Be able to support team members identifying opportunities and providing support	3.1	identify opportunities and difficulties faced by team members			
	3.2	discuss identified opportunities and difficulties with team members			
	3.3	provide advice and support to team members to overcome identified difficulties and challenges			
	3.4	provide advice and support to team members to make the most of identified opportunities			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Be able to monitor and evaluate progress and recognise individual and team achievement	4.1 monitor and evaluate individual and team activities and progress 4.2 provide recognition when individual and team objectives have been achieved			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 56: Manage or Support Equality of Opportunity, Diversity and Inclusion in Own Area of Responsibility

Unit reference number: M/600/9628

Level: 3

Credit value: 4

Guided learning hours: 20

Unit summary

This unit helps learners understand how to manage equality, diversity and inclusion in own area of responsibility.

Assessment methodology

This unit is assessed using evidence from the workplace, ie observable performance, physical products of work (such as reports, plans, correspondence etc), witness testimony, discussion and questioning etc.

Simulation is not allowed.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand own responsibilities under equality legislation, relevant codes of practice and own organisational policies	1.1 explain how equality of opportunity, diversity and inclusion relate to legal, industry requirements and organisational policies 1.2 describe how equality of opportunity, diversity and inclusion are considered in planning in own area of responsibility			
2 Be able to communicate an organisation's written equality, diversity and inclusion policy and procedures in own area of responsibility	2.1 outline an organisation's equality, diversity and inclusion policy and procedures			
3 Be able to monitor equality, diversity and inclusion within own area of responsibility	3.1 monitor how equality, diversity and inclusion activities in own area of responsibility are in line with own organisation			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 57: Support Team Members in Identifying, Developing and Implementing New Ideas

Unit reference number:	L/600/9636
Level:	3
Credit value:	4
Guided learning hours:	20

Unit summary

This unit helps learners to support team members in identifying, developing and implementing new ideas. It also helps learners to provide recognition for innovation.

Assessment methodology

This unit is assessed using evidence from the workplace, ie observable performance, physical products of work (such as reports, plans, correspondence etc), witness testimony, discussion and questioning etc.

Simulation is not allowed.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Be able to develop team ideas and develop the creativity of team members	1.1 encourage team members to identify ideas 1.2 record team members' ideas			
2 Be able to assess the viability of team members' ideas	2.1 assess with team members the potential benefits and risks associated with an idea, and the resources required			
3 Be able to support team members to implement ideas	3.1 explain how to support team members in submitting formal proposals for approval 3.2 explain to team members how to identify and overcome barriers to implementing an idea			
4 Be able to implement team ideas	4.1 monitor the implementation of ideas by own team 4.2 communicate the progress of implementation to relevant others own organisation			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 58: Plan, Allocate and Monitor Work of a Team

Unit reference number:	Y/600/9669
Level:	3
Credit value:	5
Guided learning hours:	25

Unit summary

This unit helps learners to plan and allocate the work for a team, and support, monitor and improve team performance.

Assessment methodology

This unit is assessed using evidence from the workplace, ie observable performance, physical products of work (such as reports, plans, correspondence etc), witness testimony, discussion and questioning etc.

Simulation is not allowed.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to plan work for a team	1.1	agree team objectives with own manager			
		1.2	develop a plan for a team to meet agreed objectives, taking into account capacity and capabilities of the team			
2	Be able to allocate work across a team	2.1	discuss team plans with a team			
		2.2	agree work allocation and smart (specific, measurable, achievable, realistic and time-bound) objectives with team members			
		2.3	agree standard of work required by team			
3	Be able to manage team members to achieve team objectives	3.1	support all team members in order to achieve team objectives			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Be able to monitor and evaluate the performance of team members	4.1 assess team members' work against agreed standards and objectives			
	4.2 identify and monitor conflict within a team			
	4.3 identify causes for team members not meeting team objectives			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 59: Manage Conflict in a Team

Unit reference number: R/600/9685

Level: 3

Credit value: 3

Guided learning hours: 20

Unit summary

This unit will ensure that learners understand how to identify potential and actual conflicts within a team and take action to resolve them.

Assessment methodology

This unit is assessed using evidence from the workplace, ie observable performance, physical products of work (such as reports, plans, correspondence etc), witness testimony, discussion and questioning etc.

Simulation is not allowed.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Be able to support team members' understanding of their role and position within a team	1.1 communicate to team members the standards of work and behaviour expected of them			
	1.2 explain how team members can work together and support each other			
2 Be able to take measures to minimise conflict within a team	2.1 identify issues with organisational structures, systems or procedures that are likely to give rise to conflict			
	2.2 identify potential conflict between team members			
	2.3 explain action required to avoid potential conflict and agree strategies for conflict resolution			
3 Be able to understand how to encourage team members to resolve their own conflicts	3.1 explain how team members can be encouraged to identify and resolve their own problems and conflicts			
	3.2 explain how respect can be developed and maintained between team members			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Be able to understand legal and organisational requirements concerning conflict	4.1 explain legal and organisational requirements concerning conflict in own team 4.2 explain how to maintain complete, accurate and confidential records of conflicts and their outcomes			

Learner name: _____

Date:_____

Learner signature: _____

Date:_____

Assessor signature: _____

Date:_____

Internal verifier signature: _____

Date:_____

(*if sampled*)

Unit 60: Lead and Manage Meetings

Unit reference number:	Y/600/9686
Level:	3
Credit value:	4
Guided learning hours:	20

Unit summary

This unit will ensure that learners are able to prepare for, lead and follow-up issues identified in meetings.

Assessment methodology

This unit is assessed using evidence from the workplace, ie observable performance, physical products of work (such as reports, plans, correspondence etc), witness testimony, discussion and questioning etc.

Simulation is not allowed.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Be able to prepare to lead a meeting	1.1	perform activities needed to be carried out in preparation for leading a meeting			
		1.2	produce documentation in support of activities			
2	Be able to manage meeting procedures	2.1	identify any formal procedures that apply in own organisation			
3	Be able to chair a meeting	3.1	manage the agenda in co-operation with participants to ensure meeting objectives are met			
		3.2	produce minutes of the meeting and allocate action points after discussions			
4	Be able to undertake post-meeting tasks	4.1	explain that the minutes of the meeting provide an accurate record of proceedings			
		4.2	communicate and follow up meeting outcomes to relevant individuals			
		4.3	evaluate whether the meeting's objectives were met and identify potential improvements			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 61: Manage Knowledge in Own Area of Responsibility

Unit reference number: T/600/9730

Level: 3

Credit value: 4

Guided learning hours: 15

Unit summary

This unit will ensure that learners are able to understand how knowledge is managed, using agreed procedures and processes in own organisation.

Assessment methodology

This unit is assessed using evidence from the workplace, ie observable performance, physical products of work (such as reports, plans, correspondence etc), witness testimony, discussion and questioning etc.

Simulation is not allowed.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Be able to understand existing knowledge management in own area of responsibility	1.1 describe how knowledge is gained and applied in own area of responsibility			
	1.2 explain how knowledge is shared in own area of responsibility			
	1.3 outline how intellectual property is protected in own area of responsibility			
2 Be able to develop knowledge	2.1 identify established processes and procedures which can develop knowledge			
	2.2 explain how to support individuals to ensure knowledge development processes are followed			
3 Be able to share knowledge	3.1 communicate established processes and procedures which share knowledge across own area of responsibility			
	3.2 explain how to support individuals to ensure knowledge-sharing processes are followed			
4 Be able to monitor and evaluate knowledge management in own area of responsibility	4.1 assess the knowledge development process in own area of responsibility			
	4.2 implement any changes to improve knowledge management			
	4.3 monitor change and development in the knowledge development process			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 62:   Monitor Food Safety at Critical Control Points in Operations

Unit reference number: H/602/5826

Level: 3

Credit value: 1

Guided learning hours: 5

Unit summary

This unit supports workforce development for those who monitor food safety at critical control points in a food or animal feed business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Identify and monitor critical control points	1.1 apply food safety control measures			
	1.2 complete operational controls and checks at the set time frequency			
	1.3 keep records of checks and obtain verification of completed checks			
2 Take corrective action when control measures fail	2.1 take corrective action in a timely manner			
	2.2 seek advice and support for matters outside own level of authority or expertise			
	2.3 report specifications or procedures that are out of line with set limits to the relevant person			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 63: Monitor Health, Safety and Environmental Systems in Food Operations

Unit reference number:	K/602/5827
Level:	3
Credit value:	2
Guided learning hours:	12

Unit summary

This unit supports workforce development for those who monitor health, safety and environmental systems in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Implement compliance systems	1.1 implement health, safety and environmental monitoring systems in limits of own authority			
	1.2 monitor conditions to ensure health, safety and environmental system requirements are met			
2 Undertake operational audits	2.1 undertake health, safety and environmental management audits of operations			
	2.2 take corrective action when required			
	2.3 report outcomes of monitoring to relevant people			
	2.4 maintain records in accordance with organisational and statutory requirements			
3 Make recommendations for improvements to systems	3.1 recommend ways to improve health, safety and environmental management systems			
	3.2 disseminate information about improvements to the relevant people			
	3.3 ensure that information provided enables people to implement improvements			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 64: Understand How to Monitor Health, Safety and Environmental Management Systems in Food Operations

Unit reference number:	M/602/5828
Level:	3
Credit value:	3
Guided learning hours:	20

Unit summary

This unit supports workforce development for those who understand how to monitor health, safety and environmental management systems in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know current relevant legislation	1.1 explain the principles of current legislation for health, safety and environmental management			
	1.2 describe relevant statutory body requirements			
	1.3 detail the enforcement structure of regulatory bodies			
2 Understand communication and recording methods	2.1 explain how to communicate with relevant people			
	2.2 explain how to recognise ideas and views			
	2.3 describe how to make presentations			
	2.4 outline methods of reporting and recording			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand organisational procedures and policies	3.1 explain the principles of organisational policies and systems			
	3.2 evaluate tangible and intangible benefits of health and safety to the organisation and the external environment			
	3.3 describe the organisations' procedures for the following: – health systems – safety systems – environmental systems – dealing with emergencies – environmental issues – health screening			
	3.4 describe the organisations' procedures for the prevention, investigation and reporting of incidents and accidents			
	3.5 assess the implications of current health, safety and environmental legislation on the business and individuals			
	3.6 analyse, review and validate internal and external information			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
4 Understand organisational compliance	4.1	explain the importance of compliance with systems and legislation			
	4.2	describe the consequences of non-compliance			
	4.3	explain how to ensure compliance with current statutory requirements			
	4.4	detail system requirements that monitor and maintain a healthy and safe environment			
	4.5	explain how to carry out a risk assessment			
	4.6	detail methods of risk assessments			
	4.7	detail risks and hazards specific to own area of responsibility			
	4.8	evaluate the need for involvement of health, safety and environmental specialists			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 65: Maintain, Promote and Improve Environmental Good Practice in Food Operations

Unit reference number:	H/602/1713
Level:	3
Credit value:	2
Guided learning hours:	10

Unit summary

This unit supports workforce development for those who maintain, promote and improve environmental good practice in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Maintain environmental good practice	1.1	comply with environmental good practice			
	1.2	monitor the working practice of others to evaluate their impact on the environment			
	1.3	follow correct procedures when dealing with environmental damage			
2 Promote and improve environmental good practice	2.1	inform and encourage others to maintain good environmental workplace practice			
	2.2	evaluate work practices seeking areas for improvements			
	2.3	present clear and detailed recommendations to the relevant person			
	2.4	complete and process documentation			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 66: Understand How to Monitor and Improve Environmental Good Practice in Food Operations

Unit reference number: K/602/1714

Level: 3

Credit value: 3

Guided learning hours: 18

Unit summary

This unit supports workforce development for those who understand how to monitor and improve environmental good practice, in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when monitoring and improving environmental good practice in food operations. It can be assessed on or off the job.The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Know how to follow organisational procedures for environmental good practice	1.1	explain organisational and legislative requirements relating to environmental damage			
		1.2	describe organisational policy relating to environmental good practice			
		1.3	describe levels of responsibilities of individual team members in relation to maintaining environmental good practice			
		1.4	explain why it is important not to exceed the limits of own authority			
2	Know how to recognise environmental good practice	2.1	describe the types of pressures on the environment that may occur			
		2.2	explain how environmental pressures should be taken into account when planning work			
		2.3	describe the methods that can be used to minimise environmental damage			
		2.4	explain how the efficient use of resources contributes to maintaining environmental good practice			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to improve environmental good practice	3.1 explain why it is important to follow reporting procedures for environmental accidents and near misses			
	3.2 describe methods of presenting recommendations			
	3.3 explain how to create systems for presenting recommendations			
	3.4 explain why evaluating and reflecting on feedback concerning recommendations is important			
	3.5 describe how feedback can be used to shape further recommendations			
	3.6 describe how environmental good practice can be adopted or improved			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 67: Monitor Product Quality in Food Operations

Unit reference number: Y/602/1692

Level: 3

Credit value: 3

Guided learning hours: 20

Unit summary

This unit supports workforce development for those who monitor product quality in a food business. The unit is designed for use primarily by a food manufacturing supervisor and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, monitoring product quality in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by at least two observations of performance in the workplace, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Monitor product quality	1.1 wear appropriate personal protective clothing and equipment during quality monitoring			
	1.2 identify and report factors which may adversely affect product quality			
	1.3 identify and report to the relevant people instances of non-conformance to quality standards			
	1.4 take action to reject or isolate products or items which do not conform to specification			
2 Contribute to resolving quality problems	2.1 seek advice on quality problems outside own authority or expertise			
	2.2 offer support to, or seek help for, colleagues who encounter quality problems			
	2.3 evaluate quality problems within the limits of own expertise and understanding			
	2.4 feed back to the relevant people observations on quality			
	2.5 receive and confirm instructions for the resolution of quality problems			
	2.6 carry out agreed action to resolve quality problems and feedback results to the relevant people			
	2.7 communicate with others to ensure that resolutions to quality problems are understood			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 68: Understand How to Control Product Quality in Food Operations

Unit reference number:	T/602/5829
Level:	3
Credit value:	2
Guided learning hours:	10

Unit summary

This unit supports workforce development for those who understand how to control product quality, in a food business. The unit is designed for use primarily by team leaders and others who carry out these workplace activities. The aim of the unit is to assess knowledge and understanding to recognised National Occupational Standards.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know about good manufacturing practices (GMPs)	1.1 describe relevant company quality policies 1.2 describe relevant quality working practices 1.3 describe how to obtain quality documentation 1.4 evaluate the effectiveness of documentation and data security			
2 Know how to evaluate quality issues in own area of work	2.1 explain how quality control affects efficiency of work activities 2.2 explain how to evaluate quality issues in own area of work 2.3 evaluate common quality issues across the workplace			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know about requirements for good communications	3.1 describe the methods used to keep documentation up to date			
	3.2 appraise communication of quality within the working environment			
	3.3 describe own limits of authority when controlling product quality			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 69: Manage Organisational Change for Achieving Excellence in Food Operations

Unit reference number: L/602/5075

Level: 3

Credit value: 4

Guided learning hours: 21

Unit summary

This unit supports workforce development for those who manage organisational change for achieving excellence in a food business. The unit is designed for use primarily by operatives, team leaders, supervisors, technicians and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the skills of learners in the workplace, managing organisational change for achieving excellence in food operations. It needs to be assessed on the job. The learner must be able to demonstrate their competent performance consistently over a period of time, to meet all of the assessment criteria. This will be achieved by presenting relevant evidence of workplace performance, and may be supported by witness testimony and other workplace evidence. Observations must ensure that the learner's working practice is at commercial speed and in compliance with standard operating procedures.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Prepare for managing organisational change	1.1 identify how plan for change fit with the overall achieving excellence strategy			
	1.2 identify the specific achieving excellence plans for change			
	1.3 confirm the key objectives and scope of the plans for change with relevant colleagues and any stakeholders			
	1.4 identify available resources			
	1.5 make any final changes to plans where necessary and confirm with relevant people			
2 Manage organisational change	2.1 apply processes and resources to manage potential risks arising from the change and deal with contingencies			
	2.2 implement the change plan			
	2.3 select and apply a range of management tools and techniques to monitor, control and review progress			
	2.4 identify any required changes to the plan and obtain agreement from relevant people where necessary			
	2.5 achieve plan for change objectives using the agreed level of resources			
	2.6 confirm completion of the plan for change with relevant people and stakeholders			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Communicate plans for organisational change	3.1 brief any change team members on the plans for change, detailing their roles and responsibilities			
	3.2 provide ongoing support, encouragement and information to any change team members			
	3.3 communicate progress to relevant people, stakeholders and members of any change team on a regular basis			
	3.4 seek feedback on the value of own contribution to change management			
	3.5 provide feedback on the value of own contribution to the relevant person			
4 Monitor plans for organisational change	4.1 evaluate the success of the change programme			
	4.2 identify what lessons can be learned, recognising contributions of any team members and other colleagues			
	4.3 review the impact of change			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 70: Understand How to Manage Organisational Change for Achieving Excellence in Food Operations

Unit reference number:	R/602/5076
Level:	3
Credit value:	3
Guided learning hours:	17

Unit summary

This unit supports workforce development for those who need to understand how to manage organisational change for achieving excellence in a food business. The unit is designed for use primarily by operatives, team leaders, supervisors, technicians and others who carry out these workplace activities. The aim of the unit is to determine competent performance to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the knowledge and understanding of learners in the workplace context, when managing organisational change for achieving excellence in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Know how to prepare for managing organisational change	1.1 outline the plans for change agreed in line with the strategy for achieving excellence			
	1.2 summarise the theories for understanding teams/team-building techniques and their application			
	1.3 explain how to assess the risks and benefits associated with implementation of change			
	1.4 summarise business and operational critical activities and their interdependencies			
	1.5 assess those factors that need to be changed along with the associated priorities and reasons			
	1.6 define the theory and application of the change/performance curve			
	1.7 summarise stakeholder and line management expectations and how they influence the process			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to manage organisational change	2.1 summarise the main models and methods for managing change and their strengths and weaknesses			
	2.2 describe the importance of contingency planning and how to do so effectively			
	2.3 explain how to make critical decisions			
	2.4 evaluate the range of information sources available to support achieving excellence			
	2.5 outline the internal and resource barriers to change, and techniques to overcome them			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
3 Know how to review and communicate organisational change	3.1	assess the techniques used to monitor, control and review progress during organisational change			
	3.2	explain how to evaluate the success of change implementation			
	3.3	differentiate between formal and informal channels of communication			
	3.4	explain how to give and receive feedback about change management			
	3.5	explain how to evaluate consultation arrangements that are best suited to implement achieving excellence			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 71: Develop Working Relationships with Colleagues

Unit reference number: H/600/9660

Level: 2

Credit value: 3

Guided learning hours: 15

Unit summary

This unit will help learners to establish and develop effective working relationships with colleagues.

Assessment methodology

This unit is assessed using evidence from the workplace, ie observable performance, physical products of work (such as reports, plans, correspondence etc), witness testimony, discussion and questioning etc.

Simulation is not allowed.

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
1	Understand the benefits of working with colleagues	1.1	describe the benefits of productive working relationships			
2	Be able to establish working relationships with colleagues	2.1	identify colleagues within own and other organisations			
		2.2	agree the roles and responsibilities for colleagues			
3	Be able to act in a professional and respectful manner when working with colleagues	3.1	explain how to display behaviour that shows professionalism			
4	Be able to communicate with colleagues	4.1	identify, information to others clearly and concisely			
		4.2	explain how to receive and clarify own understanding of information			
5	Be able to identify potential work-related difficulties and explore solutions	5.1	identify potential work-related difficulties and conflicts of interest			
		5.2	explain how to resolve identified potential difficulties			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 72: Understanding the Principles and Practices of Assessment

Unit reference number: D/601/5313

Level: 3

Credit value: 3

Guided learning hours: 24

Unit summary

The aim of this unit is to assess the learning and development practitioner's knowledge and understanding of the principles and practices of assessment. 'Practitioner' means anyone with a learning and development responsibility as the whole or a part of their role.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the principles and requirements of assessment	1.1 explain the function of assessment in learning and development			
	1.2 define the key concepts and principles of assessment			
	1.3 explain the responsibilities of the assessor			
	1.4 identify the regulations and requirements relevant to the assessment in own area of practice			
2 Understand different types of assessment method	2.1 compare the strengths and limitations of a range of assessment methods with reference to the needs of individual learners			
3 Understand how to plan assessment	3.1 summarise key factors to consider when planning assessment			
	3.2 evaluate the benefits of using a holistic approach to assessment			
	3.3 explain how to plan a holistic approach to assessment			
	3.4 summarise the types of risk that may be involved in assessment in own area of responsibility			
	3.5 explain how to minimise risks through the planning process			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Understand how to involve learners and others in assessment	4.1 explain the importance of involving the learner and others in the assessment process			
	4.2 summarise types of information that should be made available to learners and others involved in the assessment process			
	4.3 explain how peer and self-assessment can be used effectively to promote learner involvement and personal responsibility in the assessment of learning			
	4.4 explain how assessment arrangements can be adapted to meet the needs of individual learners			
5 Understand how to make assessment decisions	5.1 explain how to judge whether evidence is: – sufficient – authentic – current			
	5.2 explain how to ensure that assessment decisions are: – made against specified criteria – valid – reliable – fair			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
6	Understand quality assurance of the assessment process	6.1	evaluate the importance of quality assurance in the assessment process			
		6.2	summarise quality assurance and standardisation procedures in own area of practice			
		6.3	summarise the procedures to follow when there are disputes concerning assessment in own area of practice			
7	Understand how to manage information relating to assessment	7.1	explain the importance of following procedures for the management of information relating to assessment			
		7.2	explain how feedback and questioning contribute to the assessment process			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
8 Understand the legal and good practice requirements in relation to assessment	8.1 explain legal issues, policies and procedures relevant to assessment, including those for confidentiality, health, safety and welfare			
	8.2 explain the contribution that technology can make to the assessment process			
	8.3 evaluate requirements for equality and diversity and, where appropriate, bilingualism in relation to assessment			
	8.4 explain the value of reflective practice and continuing professional development in the assessment process			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 73: The Principles of Hazard Analysis and Critical Control Points (HACCP) for Food Manufacturing

Unit reference number:	Y/600/2382
Level:	3
Credit value:	3
Guided learning hours:	20

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of food safety for manufacturing, in a food business or in a learning environment. The unit is designed for use primarily by operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1. Understand the importance of HACCP based food safety management procedures	1.1 outline the need for HACCP based food safety management procedures			
	1.2 describe the HACCP approach to food safety procedures			
	1.3 summarise legislation relating to HACCP			
2. Understand the preliminary processes for HACCP based procedures	2.1 explain the requirements of a HACCP team			
	2.2 outline the pre-requisites for HACCP			
	2.3 describe food production processes including use of end product			
	2.4 use process flow diagrams in the development of HACCP based food safety management procedures			
3. Understand how to develop HACCP based food safety management procedures	3.1 identify hazards and risks in the production process			
	3.2 determine critical control points			
	3.3 establish critical limits			
4. Understand how to implement HACCP based food safety management procedures	4.1 establish and implement monitoring procedures at critical control points			
	4.2 describe corrective actions			
5. Understand how to evaluate HACCP based procedures	5.1 describe documentation and record keeping procedures			
	5.2 outline the verification and review of procedures			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 74: The Principles of Food Safety Supervision for Manufacturing

Unit reference number:	T/502/0183
Level:	3
Credit value:	3
Guided learning hours:	25

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of food safety for manufacturing, in a food business or in a learning environment. The unit is designed for use primarily by operatives and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

There are no additional assessment requirements specified by a sector or regulatory body.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand how food business operators can ensure compliance with food safety legislation	1.1 summarise the importance of food safety management procedures			
	1.2 explain the responsibilities of employers and employees in respect of food safety legislation and procedures for compliance			
	1.3 explain how the legislation is enforced			
	1.4 outline the requirements of food safety audits			
2 Understand the application and monitoring of good hygiene practice	2.1 justify the importance of high standards of personal hygiene			
	2.2 explain procedures for cleaning and disinfection including the need for workplace and equipment schedules			
	2.3 explain procedures to control contamination and cross-contamination			
	2.4 describe the importance of and methods for waste disposal			
	2.5 describe the importance of and methods for pest control			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand how to implement food safety management procedures	3.1 describe the consequences for food safety from microbial, chemical, physical and allergenic hazards			
	3.2 describe methods and procedures for controlling food safety to include critical control points, critical limits and corrective actions			
	3.3 explain the requirement for temperature control			
	3.4 explain the importance of traceability			
	3.5 explain the importance of continually reviewing and, as appropriate, improving the organisation's procedures			
4 Understand the role of supervision in food safety management procedures	4.1 explain the requirements for induction and on-going training of staff			
	4.2 explain the importance of monitoring and reporting in food safety management			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 75: Principles of Monitoring and Assessing Risks in Food Operations

Unit reference number: D/602/4044

Level: 3

Credit value: 2

Guided learning hours: 13

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of monitoring and assessing risks, in a food production business or in a learning environment.

The unit is designed for use primarily by food production supervisors (and others) who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of monitoring and assessing risks. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand health and safety legislation and workplace policies and procedures for food operations	1.1 outline the key features of legislation including: – Health and Safety at Work Act – health and safety management regulations – COSHH 1.2 describe the legal duties of employers and employees for: – health and safety – risk assessments 1.3 describe the importance of keeping organisational health and safety records 1.4 outline how a health and safety policy and procedures are best structured in a food operation 1.5 explain how to develop an effective health and safety communication strategy 1.6 outline how to monitor the activities and understanding of relevant people with respect to health and safety issues in the workplace			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Understand risks and hazards in food operations	2.1 explain the difference between a hazard and a risk			
	2.2 outline methods of identifying hazards in the workplace			
	2.3 explain the importance of promptly dealing with and reporting risks and hazards in the workplace and implications of not doing so			
3 Understand how to conduct risk assessments in the workplace	3.1 explain the purpose, legal implications and importance of carrying out risk assessments			
	3.2 outline methods used to conduct an effective risk assessments and the resources required to do so			
	3.3 describe how to deal with results of risk assessments			
	3.4 state sources of information about risk assessments			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 76: Principles of Quality Sampling and Testing in Food Operations

Unit reference number: L/602/3987

Level: 3

Credit value: 3

Guided learning hours: 18

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of quality sampling and testing, in a food production business or in a learning environment.

The unit is designed for use primarily by food production supervisors (and others) who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of quality sampling and testing. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the requirements of sampling for quality control	1.1 summarise the operational and regulatory requirements for sampling product quality			
	1.2 outline the purpose and methods of sampling			
	1.3 describe the implications of not carrying out adequate sampling of product quality sampling			
	1.4 explain what the acceptable levels of tolerance are in interpretation and decision-making			
2 Understand how to prepare for sampling	2.1 describe how to choose the correct resources and equipment and to check that they are fit for purpose			
	2.2 outline how to prepare products for assessment against specifications			
	2.3 describe how to identify suitable samples for testing			
	2.4 outline methods of safe storage and sample preparation			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3　Understand the procedures for sampling for quality control	3.1　outline controls used in the sampling process			
	3.2　explain how to calculate test results and assess these against key factors identified in product specifications			
	3.3　explain the importance of tolerance			
	3.4　explain the importance of labelling, identifying and maintaining the integrity of samples			
	3.5　summarise how to record sampling results for traceability purposes			
4　Understand how to feedback test outcomes	4.1　describe the importance of effective communication in delivering test outcomes			
	4.2　explain how to report results to relevant people			
	4.3　outline how to select the appropriate methods of communication for the audience			
	4.4　explain the importance of presenting key points of test outcomes in the appropriate format			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 77: Principles of Quality in Food Operations

Unit reference number: T/602/4034

Level: 3

Credit value: 3

Guided learning hours: 18

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of quality in food operations, in a food production business or in a learning environment.

The unit is designed for use primarily by food production supervisors (and others) who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of quality in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the importance of controlling product quality in food operations	1.1 summarise the importance of complying with current legislation and industry codes of practice to control product quality			
	1.2 explain the importance of maintaining product quality			
	1.3 explain how quality control affects efficiency of work activities			
	1.4 describe typical factors that affect quality			
	1.5 outline the documentation requirements for recording product quality			
	1.6 describe the importance of keeping records and data safe and secure			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Understand how to monitor quality	2.1	describe how to obtain information, specifications and resources required to monitor product quality			
		2.2	outline procedures for monitoring quality			
		2.3	describe how to take actions to minimise typical problems affecting quality			
		2.4	explain how operational parameters affect achieving output targets			
		2.5	explain the importance of monitoring throughput and procedures used to do this			
		2.6	summarise the potential consequences of ineffective monitoring and control			
		2.7	outline procedures to deal with non conformance in quality and how to develop solutions for this			
3	Understand how to conduct quality audits	3.1	summarise the key principles of quality auditing			
		3.2	outline how to conduct an audit investigation			
		3.3	explain how to implement any corrective actions identified during audits			
		3.4	describe quality audit documentation requirements and importance of maintaining secure records			
		3.5	describe how to interpret and communicate reports from quality auditors			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 78: Principles of Raw Food Materials in Food Operations

Unit reference number: D/602/4061

Level: 3

Credit value: 2

Guided learning hours: 14

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of food and raw materials, in a food production business or in a learning environment.

The unit is designed for use primarily by food production supervisors, and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of food and raw materials. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand sources and functional role of raw materials used in food operations	1.1 outline the main sources of raw materials for use in food operations, to include: – cereals – fruits – vegetables – meat – fish – nuts – dairy products 1.2 explain the functional role of raw materials as ingredients in finished products, to include: – preservation – enhanced eating qualities – nutritional value – ingredients lists			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Understand supply and production of raw food materials	2.1 outline annual production figures required for annual UK consumption for raw materials, to include: – cereals – fruits – vegetables – meat – fish – nuts – dairy products 2.2 outline the raw material production techniques to include: – cultivation and farming methods and conditions – intensive and extensive agriculture related to country of origin – production trends – health and safety requirements			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date

	2.3 explain handling and transportation systems for raw materials, to include:
	
	    – cereals
	
	    – fruits
	
	    – vegetables
	
	    – meat
	
	    – fish
	
	    – nuts
	
	    – dairy products
	
	2.4 explain factors affecting supply in the UK:
	
	    – political
	
	    – economic
	
	    – health scares
	
	    – environmental
	
	2.5 identify factors affecting storage:
	
	    – methods and conditions
	
	    – quality
	
	    – contamination
	
	    – health and safety requirements			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the use of additives in raw food materials	3.1 describe the categories of additives which are used to treat raw food materials			
	3.2 describe the main function of each of the categories of additives in raw food materials			
	3.3 describe the advantages and disadvantages of additives in raw food materials			
	3.4 state how raw food materials can be classified as organic foods			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 79:   Principles of Product Development in Food Operations

Unit reference number: L/602/4038

Level: 3

Credit value: 4

Guided learning hours: 31

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of product development, in a food production business or in a learning environment.

The unit is designed for use primarily by food production supervisors (and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of processing product development. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand how to obtain and use market research in product development	1.1 summarise industry product development procedures			
	1.2 describe the common sources of market research data needed for a new product development			
	1.3 outline the methods which can be used to obtain information for a new product			
	1.4 summarise customer needs and consumer trends in the industry			
	1.5 explain the importance of using market research data in product development			
2 Understand how to develop test samples	2.1 explain how technical specifications are developed and their use in developing test samples			
	2.2 summarise the stages of planning to produce a test sample			
	2.3 explain how resources and raw materials available can affect product formulation			
	2.4 describe how functional ingredients can contribute to a final product			
	2.5 explain methods used to work out product costings			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Understand how to manage production trials	3.1	outline how legislation affects production trials			
		3.2	describe how to plan and set parameters for the outcomes of a production trial			
		3.3	explain why specifications might need to be modified during a production trial			
		3.4	outline how and when to amend specifications			
4	Understand how to evaluate the outcome of production trials	4.1	outline the methods used to assess a trial product against objectives			
		4.2	explain how to analyse data from production trials			
		4.3	describe how to evaluate the reliability and sufficiency of information from a production trial			
		4.4	explain the importance of communicating the outcomes of production trials			
		4.5	outline the different methods that can be used to communicate the outcomes of production trials			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Understand how to develop product specifications	5.1 explain how to construct product specifications and protocols			
	5.2 explain the common reasons for product specifications to be rejected			
	5.3 describe how to define and compile product specifications to cover the following requirements: – materials – component – equipment			
	5.4 explain why the final specification should include: – risk assessment – hazard analysis – quality assurance methods			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 80: Principles of Engineering Maintenance in Food Operations

Unit reference number:	D/602/4058
Level:	3
Credit value:	3
Guided learning hours:	19

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of engineering maintenance, in a food production business or in a learning environment.

The unit is designed for use primarily by food production supervisors and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of processing product development. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the commissioning of food plant and equipment	1.1 explain how to access and interpret specifications for commissioning plant and equipment			
	1.2 outline how a commissioning process is carried and how this can impact on plans for establishing operations			
	1.3 describe the key aspects of equipment design which affect the productivity of plant and equipment			
	1.4 explain the process of capability for newly installed plant and equipment			
	1.5 explain how to conduct process validation			
2 Understand the importance of engineering maintenance in food operations	2.1 explain the possible implications of not undertaking maintenance to include: – cost of down time – waste control – process quality – overall efficiency			
	2.2 explain the impact that maintenance has on operations			
	2.3 explain the calculation of economic maintenance			
	2.4 describe the impact of depreciation			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
3	Understand the engineering maintenance needs of plant and equipment	3.1	outline how to assess the maintenance needs of food plant and equipment			
		3.2	explain how to determine the immediate and longer term maintenance activities that are necessary			
		3.3	explain how to establish when and how maintenance activities should be carried out			
		3.4	explain how to identify and select maintenance tools and materials and the importance of doing this correctly			
		3.5	describe the difference between a standard and proactive or preventative approach to maintenance			
		3.6	summarise the impact of maintenance overrun on food operations			
4	Understand the completion of maintenance and the handover of food plant and equipment for operations	4.1	explain how to minimise wastage and why it is important			
		4.2	outline how to dispose of waste safely and effectively			
		4.3	explain how to determine the effectiveness of maintenance activities			
		4.4	describe the procedures for the testing of plant and equipment on completion of maintenance			
		4.5	describe the procedure for handover of plant and equipment on completion of maintenance			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 81: Principles of Sustainability in Food Operations

Unit reference number: L/601/2701

Level: 3

Credit value: 4

Guided learning hours: 34

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of sustainability, in a food environment or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of sustainability. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the principles of sustainability	1.1 outline the key principles of environmental sustainability in a food environment in relation to: – energy – waste – water usage – transportation 1.2 describe the relationship between sustainability and the three key elements of corporate social responsibility: – economic – social – environmental 1.3 describe the benefits of sustainability to the organisation and its stakeholders 1.4 summarise how sustainability impacts on all the component functions of an organisation			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Understand factors affecting sustainability targets	2.1	outline how to establish targets for sustainable development, including the use of benchmarking			
		2.2	explain how carbon currency data (carbon footprints) is used as an indicator of sustainability			
		2.3	explain the importance of liaising with national policy-makers to determine the influence of government targets and legal requirements on organisational sustainability			
3	Understand factors affecting support for sustainability targets	3.1	explain how continuous improvement supports sustainability			
		3.2	explain how to gain the commitment of stakeholders to the development of sustainable food production			
		3.3	outline how environmental management systems (EMS) are used to support sustainability in a food environment			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Understand the factors influencing the achievement of sustainability	4.1 summarise the influences which impact upon the achievement of sustainability			
	4.2 explain how to control the efficient use of resources within organisational activities to help achieve sustainability			
	4.3 explain how the actions of others within the supply chain can influence sustainability			
	4.4 explain the potential barriers to achieving sustainability and summarise ways these can be overcome			
	4.5 describe how to access sources of advice and guidance on achieving sustainability			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 82: Principles of Continuous Improvement Techniques (Kaizen) in Food Operations

Unit reference number: F/601/2954

Level: 3

Credit value: 3

Guided learning hours: 15

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of continuous improvement techniques (Kaizen) in food operations or in a learning environment. The unit is designed for use primarily by manager, technicians and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of continuous improvement techniques (Kaizen) in food operations. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the features, importance of Kaizen activity	1.1 explain how the health, safety and hygiene requirements of a work area can influence a Kaizen activity			
	1.2 summarise the main features of a Kaizen activity and the establishment of measurable improvements			
	1.3 evaluate the importance of encouraging people to identify continuous improvements			
	1.4 explain the evaluation of improvement ideas and selection of those that are to be pursued			
	1.5 explain the function of standard operating procedures and specifications			
	1.6 clarify the resources required to support production schedules and specifications			
	1.7 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Understand the criteria and requirements for Kaizen and problem solving	2.1	explain the criteria used to select an area/processing activity for Kaizen activity			
		2.2	explain the importance of understanding the food process and/or activity under review			
		2.3	summarise the requirements for the deployment of Kaizen, and the resources required by the activity			
		2.4	explain the importance of waste in Kaizen activity and why inventory control is important to waste reduction			
		2.5	explain how root cause analysis can support problem solving			
		2.6	explain how own knowledge of food processing activities can support your problem-solving ability			
3	Understand how to interact with Kaizen activity	3.1	explain the application of the Deming cycle (plan, do, check, act)			
		3.2	explain how to engage the knowledge and experience of the people involved in the process in the development of improvement activities			
		3.3	explain how to separate facts and opinions about the food operations and how these affect improvement actions			
		3.4	explain the techniques used to visually communicate the work of the Kaizen activity to participants and others			
		3.5	explain how to use calculations for identifying the required production rate for a process			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	3.6 summarise the cycle time of a process			
	3.7 explain the techniques used to distribute work content to balance cycle times to the rate of customer demand, and how to visually represent it including: – line balance – process displays			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 83: Principles of Using Information Communication Technology (ICT) and Management Information Systems (MIS) In Food Technology

Unit reference number: D/601/9684

Level: 4

Credit value: 4

Guided learning hours: 23

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of using Information Communication Technology and Management Information Systems in food technology, or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of using Information Communication Technology and Management Information Systems in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand ICT and MIS systems used within food and drink businesses	1.1 identify the types of ICT and MIS systems and how they are used within food and drink businesses			
	1.2 outline the processes, facilities and equipment that are required to provide ICT and MIS systems			
	1.3 describe the potential shortfalls of ICT and MIS systems			
2 Understand how ICT and MIS systems are used within food and drink businesses	2.1 explain how ICT systems are used to collect and store process data			
	2.2 describe how to use ICT and MIS systems to: – input – store – process – retrieve data – evaluate – present data			
	2.3 explain how to maintain the security, integrity and accuracy of ICT and MIS systems			
	2.4 describe how to evaluate the effectiveness of ICT and MIS systems			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	2.5 describe how ICT and MIS systems influence and are influenced by quality assurance systems			
	2.6 outline how to plan, monitor and control the application and performance of ICT and MIS systems			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 84: Principles of Food Data Analysis in Food and Drink

Unit reference number: H/602/4501

Level: 3

Credit value: 4

Guided learning hours: 30

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of food data analysis in food and drink, in a food environment or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of food data analysis in food and drink. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the purpose of data analysis	1.1 explain the purpose of data analysis in the food and drink sector			
	1.2 identify what is reliable primary and secondary technological food data			
	1.3 outline the characteristics of primary and secondary technological food data			
	1.4 outline the processes, facilities and equipment that are required to collect and record technological food data			
2 Understand the types of data analysis	2.1 explain, from food processing operations how to source: – primary data – secondary data			
	2.2 define and detail the application in food processing of: – quantitative data – qualitative data			
	2.3 define the main data classifications to include: – categorical – discrete – continuous			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand how to record and present food data	3.1 outline how to record, code and store technological food data			
	3.2 explain how to ensure the reliability and quality of both primary and secondary data in terms of: – currency – authenticity – accuracy – balance			
	3.3 describe how to create, structure and present data sets			
	3.4 detail how to summarise data using measures of central tendency, dispersion and exploratory data analysis			
	3.5 describe how to fit and apply curves to support the analysis of technological food data			
	3.6 identify the resources required to support the effective collection, storage and analysis of data			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 85: Principles of Sensory Assessment in Food Technology

Unit reference number: Y/502/7496

Level: 3

Credit value: 3

Guided learning hours: 22

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of sensory testing in food technology, in a food environment or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of sensory testing in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the physiological and psychological factors influencing sensory assessments	1.1 explain the principles of visual perception in relation to food and drink			
	1.2 describe the role of colour in influencing consumer reactions			
	1.3 outline the physiological processes associated with taste detection			
	1.4 detail the psychological and physiological factors that can impact on sensory tests			
2 Understand the importance of flavour in the sensory assessment of food and drink products	2.1 explain the different flavour sensations and their respective receptors			
	2.2 describe how different tastes interact when combined			
	2.3 identify the various flavour components			
	2.4 describe how flavour is broken down into components			
	2.5 describe how mouthfeel influences the perception of food products			
	2.6 explain the different textures associated with food and drink products.			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 86: Principles of Appearance and Texture in Food Technology

Unit reference number: K/602/4502

Level: 3

Credit value: 3

Guided learning hours: 23

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of appearance and texture in food technology, in a food environment or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of appearance and texture in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the role of appearance and texture in food and drink products	1.1 detail the role of appearance and texture			
	1.2 identify the factors that influence appearance and texture			
	1.3 explain the importance of appearance to consumer acceptance			
	1.4 describe how product appearance and texture is influenced by different components			
	1.5 describe how raw material quality can influence appearance and texture			
2 Understand the importance of quality in the appearance and texture of food and drink products	2.1 identify the types of sensory methods used to assess appearance and texture			
	2.2 explain how processing activities influence the appearance and texture			
	2.3 outline the processes, facilities and equipment that are required to assess the appearance and texture			
	2.4 detail the common quality problems that can occur with product appearance and texture			
	2.5 describe how appearance and texture quality problems can be rectified			
	2.6 describe the role of appearance and texture assessment in quality assurance systems			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 87: Principles of Flavours in Food Technology

Unit reference number: M/602/4503

Level: 3

Credit value: 4

Guided learning hours: 36

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of flavours in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of flavours in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the principles of taste flavours	1.1 explain how the salt flavour produced by taste is a property of electrolytes			
	1.2 review how the saltiness taste can relate to the type of salt including:			
	– chloride			
	– bromide			
	– iodide			
	– sulphate			
	– nitrate			
	– partner metals			
	1.3 explain how low-molecular carbohydrates produce a sweet taste			
	1.4 describe the structure and sweet characteristics of saccharin and aspartame			
	1.5 explain how acid flavour is a property of the hydrogen ion derived from acids			
	1.6 explain how the bitterness taste is a property of alkaloids, and substances containing magnesium, calcium and ammonium ion			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Understand the principles of odour flavours	2.1	explain how food flavours produced by odours are composed of complex mixtures of hydrocarbons, alcohols, acids, aldehydes, ketones and esters			
		2.2	explain how natural food flavours can be extracted from special oil sacs in fruits and vegetables as 'essential oils'			
		2.3	describe the sources of the most common range of essential oils			
3	Understand the chemical structure and characteristics of flavours	3.1	describe the structure and characteristics of the isoprene based terpenoids			
		3.2	explain why the monoterpenes are the most common flavours and have the strongest odours			
		3.3	describe the structure and characteristics monoterpenes including: – acyclic monoterpenes – monocyclic monoterpenes – bicyclic monoterpenes			
		3.4	explain which synthetic alcohols, aldehydes, ketones and esters are used for fruit flavouring			
		3.5	explain the structure and characteristics of the sulphur containing compounds which provide the flavour of onions and cabbage			
		3.6	explain the sensitivities surrounding the use and consumption of synthetic flavours			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 88: Principles of Rheological Characteristics in Food Technology

Unit reference number:	T/602/4504
Level:	3
Credit value:	4
Guided learning hours:	32

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of rheological characteristics in food technology, or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of rheological characteristics in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Understand the importance of rheology for food and drink products	1.1	define rheology and explain its importance			
	1.2	describe the factors that influence rheology			
	1.3	explain the importance of rheology to consumer acceptance			
2 Understand the characteristics of rheology	2.1	explain how processing activities influence the rheological characteristics			
	2.2	explain how rheological characteristics are incorporated into organisational standard operating procedures			
	2.3	describe the characteristics of: – elasticity – plastic flow – viscous flow			
	2.4	explain why elastic deformation is reversible			
	2.5	explain why plastic flow is non-reversible			
	2.6	explain how raw material quality can affect the rheological characteristics			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand how to measure Rheological characteristics	3.1 describe how rheological characteristics of foods can be measured 3.2 describe the methods used to assess the rheological characteristics 3.3 identify the uses of: – texturometer – viscosimeter and jelmeter – shortometer and penetrometer – compressimeter – handheld pressure tester			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 89: Principles of Weights and Measures in Food Technology

Unit reference number: A/602/4505

Level: 3

Credit value: 4

Guided learning hours: 30

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of weights and measures in food technology, in a food environment or in a learning environment. The unit is designed for use primarily by technicians, managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of weights and measures in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the legal and regulatory requirements for weighing and measuring food and drink products	1.1 describe the purpose of weights and measures in the food and drink sector			
	1.2 explain the units of weights and measures			
	1.3 outline the legal or regulatory requirements that control how food is sold by weight, number and measure			
	1.4 explain the implications of inaccuracy when weighing and measuring			
	1.5 describe how UK legal and regulatory requirements are monitored and enforced			
2 Understand the processes of weighing and measuring food and drink products	2.1 describe the facilities and equipment required to weigh and measure food and drink			
	2.2 outline the manner of marking weights and measures and the permitted symbols and abbreviations			
	2.3 outline the processes, facilities and equipment that are required to weigh and measure food			
	2.4 explain why weighing and measuring devices and processes must be calibrated			
	2.5 describe how to undertake the calibration of weighing/measuring devices			
	2.6 describe how weighing devices can become inaccurate and develop errors			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand how to quality assure the weighing and measuring of food and drink products	3.1 describe how to interpret process specifications for weighing and measuring data			
	3.2 outline the risks associated with inaccurate weighing			
	3.3 describe the implications for quality control associated with weighing and measuring			
	3.4 outline the quality assurance processes that are needed to support weighing and measuring			
	3.5 outline the recording and reporting systems that are needed to support the weighing and measuring processes			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 90: Principles of Energy Transfer in Heating Food Technology

Unit reference number: J/502/7557

Level: 3

Credit value: 4

Guided learning hours: 30

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of energy transfer in heating food technology, in a food environment or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of energy transfer in heating food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Understand the principles of energy	1.1	describe the applications of heat treatment			
	1.2	identify sources of direct and indirect heat			
	1.3	describe the changes that occur in food and drink products when they are heated			
	1.4	explain how and why heat treatments are controlled and monitored			
	1.5	outline how energy efficiency is optimised			
	1.6	explain what happens at molecular level when food substances are heated			
2 Understand how to measure energy	2.1	describe how intensity of heat can be measured			
	2.2	explain the use of Celsius, Fahrenheit, and Kelvin scales for measuring temperature			
	2.3	explain how energy values used to heat food are measured using the calorie, British thermal unit and joule scales			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the transfer and characteristics of energy	3.1 describe the difference between temperature and energy needed to heat a food substance 3.2 explain how energy is transferred by: – radiation – conduction – convection 3.3 explain the characteristics of energy transfer to foods: – in ovens and convection ovens – from surface heat contact – in retards – in microwave ovens			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 91: Principles of the Dehydration Process in Food Technology

Unit reference number: A/502/7426

Level: 3

Credit value: 4

Guided learning hours: 34

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of dehydration in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of dehydration in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the physical effects of dehydration in food technology	1.1 define dehydration 1.2 explain the physical effects of dehydration in foods including: – water loss – weight and bulk reduction – the concentration of solutes in specific areas – case hardening 1.3 explain the effect of dehydration on microbial growth and reproduction 1.4 explain what the term 'Water Activity' (WA) in food means, and which types of organisms grow at particular aw ranges			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Understand the chemical and nutritional affects of dehydration in food technology	2.1	explain how osmotic effects can reduce WA in foods like jams and salted foods			
		2.2	diagnose why chemically bound water cannot be easily removed from foods			
		2.3	explain what the nutritional and quality effects of dehydration are including:			
			– vitamin degradation			
			– acceleration of oxidative rancidity			
			– changes in shape, colour, texture			
		2.4	explain why blanching may be necessary in certain products prior to dehydration including:			
			– enzymic reactions			
			– non-enzymic reactions (Maillard)			
3	Understand dehydration processes and economics in food technology	3.1	explain the characteristics and how the sun-drying process is carried out			
		3.2	identify the equipment used in the process			
		3.3	explain the characteristics of, and how warm-air driers dehydrate foods to include:			
			– kiln driers			
			– tunnel driers			
			– fluidised bed driers			
		3.4	identify the equipment used in the process			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	3.5 explain the characteristics of, and how roller or drum driers and spray driers dehydrate liquid foods			
	3.6 identify the equipment used in the process			
	3.7 explain the characteristics of, and how freeze drying and accelerated freeze drying processes work			
	3.8 identify the equipment used in the processes			
	3.9 summarise the economical and food advantages of dehydration methods in the market success of convenience foods			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 92: Principles of Energy Transfer in Cooling Food Technology

Unit reference number: L/502/7429

Level: 3

Credit value: 4

Guided learning hours: 28

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of energy transfer in cooling food technology, in a food environment or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of energy transfer in cooling food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
1 Understand heat transfer in the form of cooling	1.1	describe the applications of cooling			
	1.2	outline direct and indirect methods of cooling			
	1.3	explain the changes that occur in food and drink products when they are cooled			
	1.4	describe how energy efficiency is optimised during cooling			
2 Understand the different methods of cooling food and drink products	2.1	describe how and why cooling processes are controlled and monitored			
	2.2	outline the factors affecting the choice of cooling medium			
	2.3	explain why agitation of the cooling medium can increase cooling effectiveness			
	2.4	describe how foods can be cooled by convection			
	2.5	describe how conversion currents operate in a refrigerator			
	2.6	explain why solid foods cool more slowly than liquid foods			
	2.7	explain why water is a better coolant than air			
	2.8	describe the factors that influence the effectiveness of the refrigeration process ability to cool foods and maintain temperature			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 93: Principles of the Refrigeration Cycle in Food Technology

Unit reference number: L/502/7558

Level: 3

Credit value: 4

Guided learning hours: 32

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of the refrigeration cycle in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of the refrigeration cycle in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the definition and purpose of refrigeration	1.1 explain the definition and purpose of: – refrigeration – refrigerants 1.2 summarise the purpose of the refrigeration process			
2 Understand the technical aspects of the refrigeration cycle	2.1 explain how liquid refrigerant takes up heat in an evaporator 2.2 explain how refrigerant vapour is compressed and condensed into a liquid 2.3 explain the purpose of the expansion valve in the circulation of the refrigerant 2.4 explain the purpose of the refrigerant reservoir			
3 Understand refrigerants and latent heat properties in the refrigeration cycle	3.1 summarise the substances that are used as refrigerants 3.2 compare the advantages and disadvantages of different types of refrigerants 3.3 explain the term 'latent heat of evaporation' 3.4 explain why latent heat of evaporation is important in the refrigeration cycle 3.5 justify why refrigerants need to have a high latent heat capacity			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Understand the disposal and safety issues relating to refrigeration	4.1 explain concerns in the maintenance and disposal of refrigeration equipment including: – energy – sustainability – environmental 4.2 summarise the safety precautions required when working with refrigerants			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 94: Principles of Freezing Methods in Food Technology

Unit reference number:	F/602/4506
Level:	3
Credit value:	4
Guided learning hours:	30

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of freezing methods in food technology, in food operations or in a learning environment. The unit is designed for use primarily by technicians, managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of freezing methods in food technology. It can be assessed on or off the job. The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand how the freezing process preserves and stores foods	1.1 explain how freezing acts as a preservation method for foods			
	1.2 explain how freezing affects the storage life of foods			
	1.3 describe the process of freezing in foods including: – ice crystal formation – concentration of dissolved substances – temperature requirements – tempering			
2 Understand the technical aspects of freezing on foods	2.1 summarise the effect of freezing on plant cell material			
	2.2 explain the definition and importance of the thermal arrest period to food product quality			
	2.3 summarise the affect of freezing on animal tissue			
	2.4 explain meaning of the term 'quick freezing'			
	2.5 explain the term 'deep freezing' as defined by the international institute of refrigeration			
	2.6 explain how food products can be individually quick frozen			
	2.7 clarify the advantages of individually quick freezing vegetables and fruits			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand freezing methods in food technology	3.1 explain the use and functionality of the: – immersion-freezing method – plate freezing method – blast freezing method 3.2 explain the use and functionality of: – fluidised bed freezers – cryogenic freezers – liquid carbon dioxide freezers			
4 Understand the cold chain distribution of frozen foods	4.1 outline how the cold chain works in the distribution of frozen foods 4.2 explain the profile of temperature maintenance across the breadth of the cold chain			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 95: Principles of Pigments in Food Technology

Unit reference number: H/602/4515

Level: 4

Credit value: 5

Guided learning hours: 40

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of pigments in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of pigments in food technology. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the role of pigments in food	1.1 explain the important role played by pigment molecules in the appeal of natural and processed foods			
	1.2 explain what role pigment molecules play in indicating the ripeness, deterioration or spoilage of foods			
2 Understand the structure, characteristics and sources of isoprenoid derived pigments	2.1 explain the structure of carotenoids including: – carotenes – lycopenes – xanthophylls			
	2.2 evaluate the functional characteristics of the carotenoids			
	2.3 summarise the naturally occurring sources of carotenoids			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the structure, characteristics and sources of tetrapyrrole derived pigments	3.1 explain the structure of tetrapyrrole derived pigments including: – chlorophylls – pheophytin – haemoglobin and oxyhaemoglobin – myoglobin and oxymyoglobin 3.2 evaluate the functional characteristics of the tetrapyrrole derived pigments 3.3 summarise the naturally occurring sources of tetrapyrrole derived pigments			
4 Understand the structure, characteristics and sources of benzopyran derived pigments	4.1 explain the structure of tetrapyrrole derived pigments including: – anthocyanins – flavones – tannins 4.2 evaluate the functional characteristics of the benzopyran-derived pigments 4.3 summarise the naturally occurring sources of benzoptran derived pigments			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Understand food colour additives	5.1 explain how food additive colours used in the UK are approved and reviewed by the European Union			
	5.2 explain what the permitted food colours are, their Ecoding and their main characteristics			
	5.3 describe the source product for the synthesis of food colour additives			
	5.4 evaluate the sensitivities surrounding the use and consumption of food colour additives			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 96: Principles of Functional Food Additives in Food Technology

Unit reference number:	K/602/4516
Level:	3
Credit value:	4
Guided learning hours:	35

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of functional food additives, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of functional food additives. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the purpose, value and approval of food additives	1.1 summarise the main purposes of food additives to include: – delaying food deterioration and spoilage – sustaining the commercially specified visual appearance and texture of food 1.2 compare the relative size and value of the food additives market in the UK to that of Europe 1.3 explain the public sensitivities surrounding the use and consumption of food additives in the UK 1.4 explain how food additives used in the UK are approved, reviewed and classified			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Understand the functional characteristics of anti-caking agents, antioxidants and buffers	2.1 explain the purpose of adding anti-caking agents, antioxidants and buffers to foods 2.2 summarise the physical characteristics which underpin the functionality of: – anti-caking agents – antioxidants – buffers 2.3 summarise the chemical characteristics which underpin the functionality of: – anti-caking agents – antioxidants – buffers 2.4 evaluate the uses of anti-caking agents, antioxidants and buffers in foods			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the functional characteristics of enzymes, firming/crisping agents, humectants and sequestrants	3.1 explain the purpose of adding enzymes, firming/crisping agents, humectants and sequestrants to foods 3.2 summarise the physical characteristics which underpin the functionality of: – enzymes – firming/crisping agents – humectants and sequestrants 3.3 summarise the chemical characteristics which underpin the functionality of: – enzymes – firming/crisping agents – humectants and sequestrants 3.4 evaluate the uses of enzymes, firming/crisping agents, humectants and sequestrants in foods			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
4 Understand the functional characteristics of preservatives	4.1	explain the purpose of adding preservatives to foods			
	4.2	summarise the physical characteristics which underpin the functionality of preservatives			
	4.3	summarise the chemical characteristics which underpin the functionality of preservatives			
	4.4	explain the role of the acid group of preservatives in providing flavour			
	4.5	compare the use of the acid group of food additives to their natural occurrence in foods			
	4.6	evaluate the use of sulphur-based, sorbic, propanoic, and nitrate-based preservatives in foods			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Understand the functional characteristics of the nutritive group of food additives	5.1 explain the purpose of adding nutrients to foods 5.2 describe the functions of the main nutrient additives used to fortify foods 5.3 summarise the advantages and disadvantages of adding nutrients to foods for public consumption 5.4 explain the statutory requirements for the fortification of foods in the UK 5.5 review which food types are commonly fortified on a voluntary basis in the UK			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 97: Principles of Yeast Biology for Food and Drink

Unit reference number: A/602/4522

Level: 3

Credit value: 4

Guided learning hours: 30

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of yeast biology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of yeast biology for food and drink. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the cellular structure and functionality of the yeast cell	1.1 describe the overall size and microscopic structure of the yeast cell			
	1.2 explain the functionality of each of the microscopic components of the yeast cell			
	1.3 describe how to estimate how many yeast cells might be present in one gram of yeast			
	1.4 summarise the nutritional composition of the single cell yeast organism			
	1.5 explain why yeast are classified as fungi			
2 Understand how yeast cells reproduce	2.1 explain the yeast cell multiplication process			
	2.2 summarise the conditions and factors which optimise the rate at which yeast multiplies			
	2.3 describe how to estimate the optimum rate of multiplication of yeast			
	2.4 outline the budding process			
	2.5 describe the process and conditions which cause yeast to sporulate			
	2.6 explain why yeast sporulation is important in cross-breeding yeast strains			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the process and function of yeast fermentation	3.1 explain the stages of yeast fermentation as a biochemical process			
	3.2 summarise which enzymes are required in yeast cells to carry out fermentation			
	3.3 explain the action of yeast enzymes as a key part of the fermentation process			
	3.4 clarify which food substrates can be utilised by yeast cells for fermentation			
	3.5 describe the factors which affect the performance of yeast enzymes and the rate of fermentation			
	3.6 summarise the key features of substances produced by fermentation			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Understand how yeast is manufactured and the functionality of yeast types	4.1 summarise the species of yeast cultivated for use in baking and brewing			
	4.2 explain how yeast is manufactured on a commercial scale			
	4.3 summarise the types of yeast used in food and drink processing			
	4.4 evaluate the features and uses of the following yeast types: – compressed – granular – active dried – ordinary dried – instant dried			
	4.5 describe the optimum conditions and factors for the storage and care of each of the yeast types			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 98: Principles of Microbiology in Food Technology

Unit reference number: A/602/4536

Level: 3

Credit value: 4

Guided learning hours: 32

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of microbiology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of microbiology in food technology. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the classification and assessment of micro-organisms in food and drink processing	1.1 summarise the types of micro-organisms important in food and drink processing			
	1.2 explain the importance of classifying types of micro-organisms important in food and drink processing			
	1.3 explain the techniques used for the microbiological assessment of food and drink			
	1.4 explain how to interpret the outcomes of the microbiological assessment of food and drink			
	1.5 justify why potential errors and tolerances must be taken into account during microbiological assessment of food and drink			
2 Understand food poisoning viruses and relevant food processing control measures	2.1 summarise the common viruses which cause viral food poisoning			
	2.2 explain the characteristics of the viruses which cause viral food poisoning			
	2.3 evaluate the measures used in food and drink processing to control and destroy viruses which cause viral food poisoning			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
3 Understand food poisoning bacteria and relevant food processing control measures	3.1	summarise the common bacteria which cause bacterial food poisoning			
	3.2	explain the characteristics of the bacteria which cause bacterial food poisoning			
	3.3	explain what microbial toxins are and how they are produced			
	3.4	summarise the impact of microbial toxins in food materials			
	3.5	evaluate the measures used in food and drink processing to control and destroy the bacteria and toxins which cause bacterial food poisoning			
4 Understand the micro-organisms which cause food spoilage and relevant food processing control measures	4.1	summarise the types of bacteria and fungi which cause deterioration and spoilage of food			
	4.2	explain the biochemical processes by which bacteria and fungi cause deterioration and spoilage of food			
	4.3	describe the main methods for the control of food spoilage by bacteria and fungi			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Understand the characteristics of useful food processing micro-organisms	5.1 explain the characteristics of bacteria and fungi which cause fermentation in food processing including: – baking – brewing – cheese making 5.2 explain how microbial biopolymers can be used to improve the texture of food products 5.3 explain the purpose and value of probiotic bacteria in specific food products			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 99: Principles of Sterile Processing in Food Technology

Unit reference number: M/602/3013

Level: 3

Credit value: 4

Guided learning hours: 30

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of sterile processing in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of sterile processing in food technology. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the aim and principles of sterile processing technology	1.1 describe the aims of sterile processing			
	1.2 explain the scientific principles involved in the destruction of micro-organisms and their spores, and the inactivation of enzymes			
	1.3 distinguish between absolute sterility and commercial sterility			
2 Understand heat and pH treatments as sterile processing technologies	2.1 justify the use of heat treatment as the most commonly used method of sterilisation			
	2.2 explain the range and application of methods for food sterilisation			
	2.3 explain how the acidity levels of food can affect the use of heat treatment or sterilisation methods			
	2.4 explain how ph levels impact on inhibiting spoilage organisms from ph 5.3 and lower			
	2.5 state the definitions and examples of: – low acid foods – acid foods – high acid foods			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the affect of osmotically active substances on sterile processing technologies	3.1 explain how the presence and levels of osmotically active substances can affect the use of heat treatment or other sterilisation methods			
	3.2 explain how osmotically active substances biochemically perform within food mixtures			
	3.3 explain the function of sugars, starches and salts as osmotically active substances			
4 Understand the structure and use of glass and sterilisable pouches	4.1 evaluate the uses of glass and sterilisable pouches for packaging sterile food and drink			
	4.2 explain the structure and use of sterilisable pouches			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 100: Principles of Cleaning Raw Food Materials

Unit reference number: T/602/4552

Level: 3

Credit value: 3

Guided learning hours: 22

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of cleaning raw food materials, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of cleaning raw food materials. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the rationale for cleaning and separation technology	1.1 compare the advantages and disadvantages of using mechanised picking machines to hand picking raw food materials			
	1.2 explain the rationale for cleaning raw food materials after harvesting			
	1.3 summarise the multistage separation methodology used for the cleaning of raw food materials			
	1.4 explain how combinations of cleaning methods can be used to obtain the optimum results for specific raw food materials			
2 Understand the processes for cleaning raw food materials without using water	2.1 summarise which raw food materials are best cleaned without using water			
	2.2 explain why some raw materials are best cleaned without water			
	2.3 explain the characteristics of and equipment used in the processes for separating raw material from contaminants including: – continuous drum screening – aspiration process			
	2.4 outline how metal detectors and magnets are used to identify and remove metal contaminants from raw materials			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
	2.5 state the definitions and examples of: – low acid foods – acid foods – high acid foods			
3 Understand the processes for cleaning raw food materials using water	3.1 summarise which raw food materials are best cleaned using water			
	3.2 explain why specific raw good materials can be soaked or agitated in water as a preliminary treatment to cleaning			
	3.3 explain how spray washing is used to clean raw materials			
	3.4 explain the characteristics of, and equipment used in the floatation washing process for separating raw material from contaminants			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 101: Principles of Sorting and Grading Produce and Food Materials

Unit reference number: A/602/4553

Level: 3

Credit value: 3

Guided learning hours: 22

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of sorting and grading produce and food materials, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of sorting and grading produce and food material. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the definitions and rationale for sorting and grading food materials	1.1 summarise the definition of sorting produce and food materials			
	1.2 summarise the definition of grading produce and food materials			
	1.3 explain the rationale for sorting and grading food materials after cleaning			
	1.4 outline the separation methodology for sorting and grading food materials			
2 Understand equipment and methods used for sorting food materials	2.1 explain why sorting is necessary in preparation for mechanical food processing			
	2.2 explain why sorting is important to the effective packaging of fresh produce			
	2.3 summarise which foods can be sorted by weight			
	2.4 explain the types of equipment used to sort by weight and how this equipment functions			
	2.5 summarise which foods can be sorted by colour			
	2.6 explain the types of equipment used to sort by colour and how this equipment functions			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the quality factors used in grading food materials	3.1 explain how the quality parameters for grading reflect the intended use of the produce or food materials			
	3.2 summarise the importance of the common quality criteria for grading to include: – shape – size – colour – freedom from damage and contamination			
	3.3 explain the importance of including quality criteria such as texture, crumb and eating quality when grading food products			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 102: Principles of Bulk Size Reduction of Produce and Food Materials

Unit reference number: F/602/4554

Level: 3

Credit value: 4

Guided learning hours: 30

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of bulk size reduction of produce and food materials, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of bulk size reduction of produce and food materials. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the rationale and purpose of bulk size reduction	1.1 clarify the definition of size reduction as it relates to produce and other food materials			
	1.2 explain the rationale for the size reduction of produce and food materials after sorting and grading			
	1.3 explain the role of size reduction in the preparation of convenience foods and for other processes including: – blanching – canning – juice extraction			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Understand the purpose and characteristics of crushing and grinding processes in bulk size reduction	2.1	summarise the purpose of crushing plant prior to size reduction processes			
		2.2	clarify which types of food materials are commonly processed using crushing			
		2.3	explain the characteristics of grinding processes including: – hammer mills – disc mills – pin mills – ball mills			
		2.4	outline types of food materials which are not suited to grinding processes			
3	Understand the purpose and characteristics of cutting, dicing and shredding processes in bulk size reduction	3.1	summarise the purpose of cutting and dicing plant as size reduction processes			
		3.2	explain the characteristics of reduction using cutting and dicing equipment			
		3.3	summarise the type of food materials which are commonly processed using cutting and dicing			
		3.4	explain the characteristics of shredding processes			
		3.5	summarise the type of food materials which are commonly processed by shredding			
		3.6	explain why cutting, dicing and shredding processes increase the surface area of food material for further processing			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Understand the purpose and methodology of pulping in bulk size reduction	4.1 summarise the purpose of pulping plant as a size reduction process 4.2 outline how pulping is carried out in juice and extract making plants 4.3 explain how pulping equipment operates in juice and extract making plants			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 103: Principles of Homogenisation in Food Technology

Unit reference number: J/602/4555

Level: 3

Credit value: 4

Guided learning hours: 30

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of homogenisation in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of homogenisation in food technology. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes		**Assessment criteria**		**Evidence type**	**Portfolio reference**	**Date**
1	Understand the principles of homogenisation in food processing	1.1	explain the purpose of homogenisation of food mixtures			
		1.2	describe which types of food are normally blended by the homogenisation processes			
		1.3	explain how homogenisation operates as both a mixing and size reduction process			
		1.4	summarise how liquid droplets are broken down (size reduced) during homogenisation			
		1.5	explain how crude emulsions are formed			
2	Understand how emulsifiers work in food processing	2.1	explain how the action of emulsifiers extend the longer-term stability of an homogenised emulsion			
		2.2	describe the chemical work of emulsifiers to emulsify a lipid within a water medium			
		2.3	summarise the main naturally occurring emulsifiers and artificial emulsifiers used to process specific food products			
		2.4	explain the difference between naturally occurring emulsification and assisted emulsification during the homogenisation process			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
3 Understand how pressure homogenisers are used in food processing	3.1	describe the purpose of pressure homogenisation and when it is used			
	3.2	explain how a pressure homogeniser works and the equipment used in the process			
	3.3	explain which types of food products are best suited to homogenisation in a pressure homogeniser			
4 Understand how colloidal mills are used in food processing	4.1	describe the purpose of colloidal mills			
	4.2	explain how a colloidal mill works and the equipment used in the process			
	4.3	explain which types of food products are best suited to homogenisation in a colloidal mill			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 104: Principles of Filtration in Food Technology

Unit reference number: H/502/7498

Level: 3

Credit value: 4

Guided learning hours: 26

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of filtration in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of filtration in food technology. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the purpose and application of filtration	1.1 explain the purpose of filtration in food processing			
	1.2 justify when it is more appropriate to use a food filtration technique than alternative separation technology			
	1.3 summarise what types of foods are normally separated by filtration processes			
2 Understand clarification, filter media and filter aids in food filtration	2.1 explain what the process of clarification is in food filtration technology			
	2.2 define the terms: – filtrate – filter medium – filter cake			
	2.3 describe the types of filter media commonly used in food filtration technology			
	2.4 justify how filter media are selected for specific food types			
	2.5 explain how filter media are cleaned and disposed of			
	2.6 explain the functions of filter aids			
	2.7 explain what materials are commonly used as filter aids in food filtration			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand food process filtration methodology	3.1 explain the typical structure and operation of a plate and frame press			
	3.2 explain how a vacuum can be used as an alternative to pressure, to assist in speeding up the filtration process			
	3.3 explain typical structure and operation of a continuous rotary drum vacuum filter			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 105: Principles of Centrifugation in Food Technology

Unit reference number: J/502/7493

Level: 3

Credit value: 3

Guided learning hours: 28

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of centrifugation in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of centrifugation in food technology. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the principles of centrifugation in food processing	1.1 Explain the purpose of centrifugation of foods in food technology			
	1.2 Define 'centrifugal force'			
	1.3 Explain how centrifuges separate food components			
	1.4 Explain the importance of the specific gravity of food components during centrifugation			
	1.5 Summarise the types of food normally separated by centrifugation technology			
2 Understand the application of centrifugation in food processing	2.1 Explain how cream separators work on the centrifuge principle			
	2.2 Explain how oils can be purified by centrifugation			
	2.3 Explain how beer can be clarified by centrifugation			
	2.4 Explain how yeast can be separated by centrifugation			
	2.5 Explain how sugar can be refined using centrifugation			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the economics of centrifugation technology	3.1 Explain how the type of food material affects the economic decision to use centrifugation or an alternative separation technique			
	3.2 Explain the economics of operating continuous centrifugation equipment for specified food types			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 106: Principles of Blanching in Food Technology

Unit reference number: L/502/7494

Level: 3

Credit value: 3

Guided learning hours: 21

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of blanching in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of blanching in food technology. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the purpose and importance of blanching	1.1 outline the purpose of food size reduction and washing/cleaning, in preparation for blanching			
	1.2 explain the objectives of the blanching process including: – enzyme inactivation – colour preservation			
	1.3 justify why many prepared foods are blanched before further processing			
2 Understand how steam, water and microwave blanching is carried out	2.1 explain what equipment to use and how to carry out the blanching process using: – steam – water – microwave			
	2.2 summarise the effects of steam or water blanching on food products			
	2.3 compare the advantages and disadvantages of steam, water and microwave blanching			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
3 Understand how to test and improve blanching	3.1	explain how the effectiveness of blanching can be tested using the peroxidase test			
	3.2	evaluate the optimal temperatures and times for effective blanching			
	3.3	review the functions of additives which can be used to improve product quality during blanching			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 107: Principles of Irradiation in Food Technology

Unit reference number: R/502/7495

Level: 3

Credit value: 4

Guided learning hours: 34

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of irradiation in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of irradiation in food technology. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the features and affects of ionising radiation	1.1 summarise the physical advantages of the effects of ionising radiation to food			
	1.2 explain how ionising radiation can cause the formation of reactive molecules and free radicals in some foods			
	1.3 explain how ionising radiation can cause the production of off-flavours and the degradation of vitamins in some foods			
	1.4 diagnose what the evidence is for the breakdown of food components and absence of toxicity in irradiated foods, being comparable to that in non-irradiated foods			
2 Understand the radiation sources of irradiation	2.1 summarise when and what types of irradiated foods were allowed to be sold and consumed in the UK			
	2.2 describe the types of radiation used as sources of ionising radiation for foods: – electron produced linear accelerators – gamma rays from decay of cobalt 60 and caesium 137			
	2.3 clarify what the evidence is for the absence of residual radioactivity in irradiated foods			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the types of irradiation technologies and the economics of irradiation	3.1 critically compare the advantages and disadvantages of the use of the types of radiation sources			
	3.2 explain how radiation sterilisation or radappertisation is carried out, its characteristics and the equipment used			
	3.3 summarise why products which are sterilised by radappertisation require aseptic packaging			
	3.4 explain how radiation pasteurisation or radurization is carried out, its characteristics and equipment used			
	3.5 evaluate the success and affects of ionising radiation on: – potatoes – vegetables – fruit – poultry products			
	3.6 evaluate the economics of food irradiation and continuous processing			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 108: Principles of Canning in Food Technology

Unit reference number: F/502/7430

Level: 3

Credit value: 4

Guided learning hours: 30

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of canning in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of canning in food technology. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the preparation for canning and the importance of canning	1.1 explain the purpose of food washing/cleaning and food size reduction in preparation for canning			
	1.2 evaluate why some fruits and most vegetables are blanched before canning			
	1.3 summarise the importance of canning as a food preservation technique			
	1.4 explain why canning is a bacteriocidal process			
2 Understand how canning is carried out and the acceptable standards of sterility required	2.1 describe how to carry out and what equipment is used in the filling, vacuum treatment and sealing of cans			
	2.2 summarise how the toxin of *Clostridium botulinum* can be used as an indicator of heat resistant spores and toxins in the canning process			
	2.3 explain the standards of commercial sterility which are acceptable to canning of foods			
	2.4 explain the importance of the decimal reduction time or D value, in the canning process			
	2.5 explain the definition and importance of the f value in canning different types of foods			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
3　Understand heat penetration, cooling and labelling during canning	3.1	explain how heat penetration into cans differs in solid pack and liquid pack canning			
	3.2	explain how the heating process is carried out and what retort equipment is used			
	3.3	explain how the cooling process is carried out and what equipment is used			
	3.4	describe how cans are labelled, where the cans are not previously printed			
4　Understand spoilage and the competition canning faces from other preservation technologies	4.1	explain what the causes of spoilage are in canned foods			
	4.2	analyse why the canning of foods has been affected by newer food preservation and packing technologies like freezing and the production of pouches of foil, plastics and laminates			

Learner name: _____　Date:_____

Learner signature: _____　Date:_____

Assessor signature: _____　Date:_____

Internal verifier signature: _____　Date:_____
(*if sampled*)

Unit 109: Principles of Aseptic Packaging in Food Technology

Unit reference number: L/602/4556

Level: 3

Credit value: 3

Guided learning hours: 20

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of aseptic packaging in food technology, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of aseptic packaging in food technology. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the definition and hermetic sealing of aseptic packaging	1.1 explain the definition of aseptic packaging 1.2 explain the importance of hermetically sealing aseptic products 1.3 describe how hermetic sealing is carried out			
2 Understand the UHT milk processing as an example of aseptic packaging technology	2.1 describe how ultra-high temperature (UHT) milk is processed 2.2 critically compare the advantages of UHT milk treatments over traditional in-bottle' long process sterilisation techniques 2.3 explain how uperization achieves rapid milk sterilisation			

3 Understand sterilisation in food technology	3.1 explain how sterilisation is carried out in the production of:
	
	  – aseptic soups
	
	  – ice-cream mixtures
	
	  – custards
	
	3.2 explain how sterilisation is carried out in the production of aseptic soft drinks
	
	3.3 evaluate the use of micro-filters for the sterilisation of heat sensitive food products			

Learner name: _____ Date:_____

Learner signature: _____ Date:_____

Assessor signature: _____ Date:_____

Internal verifier signature: _____ Date:_____
(*if sampled*)

Unit 110: Principles of Bar Coding in Food Operations

Unit reference number: D/602/4562

Level: 3

Credit value: 3

Guided learning hours: 20

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of bar coding, in a food environment or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of bar coding in food and drink. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the form and data capture of bar codes	1.1 describe the form and structure of a bar code 1.2 explain how bar coding stores product data 1.3 explain the different types of bar code used for food and drink products			
2 Understand the infrastructure required to implement and maintain bar coding	2.1 summarise the systems, equipment and processes that are required to implement bar coding systems 2.2 explain the role of bar coding in product traceability and stock control from food producer to consumer 2.3 outline the processes, facilities and equipment that are required to bar code food and drink products			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
3 Understand the organisation and control of bar coding	3.1	describe the organisation and control of the bar coding processes			
	3.2	evaluate the risks associated with inaccurate bar coding			
	3.3	explain common quality problems associated with the bar coding process			
	3.4	explain how to develop contingency processes for dealing with product that has been incorrectly bar coded			
	3.5	explain the quality assurance systems required to support bar coding processes			
	3.6	summarise the recording and reporting systems that are needed to support bar coding in food and drink production			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 111: Principles of Paper and Board Packaging in Food Operations

Unit reference number: K/602/4564

Level: 3

Credit value: 4

Guided learning hours: 34

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of paper and board packaging, in food and drink operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of paper and board packaging in food and drink. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the sources and business uses of paper and board packaging	1.1 describe the origins and sources of paper and board packaging material			
	1.2 explain how paper and board packaging materials can be used a part of a sustainable policy packaging material			
	1.3 compare the business advantages for using paper and board packaging materials to other non-biodegradable materials			
	1.4 summarise the limitations of food safe packaging material			
	1.5 outline the regulations for using food safe packaging			
2 Understand paper processing and its suitability as a packaging material	2.1 describe how paper is processed into food safe packaging material			
	2.2 explain the purposes and functions of paper packaging food products			
	2.3 summarise the typical uses of paper and waxed paper packaging material			
	2.4 evaluate the suitability of paper-based packaging material in the freezing and storage of food products			
	2.5 evaluate the suitability of paper based packaging material in providing a substrate for advertising, labelling and bar coding			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand board processing and its suitability as a packaging material	3.1 describe how board is processed into different types of food safe packaging material			
	3.2 explain the purposes and functions of board packaging food and drink products			
	3.3 summarise the options for treating board for use in direct contact with food or drink			
	3.4 explain the typical uses for board, waxed board and lined board packaging material for food and drink products			
	3.5 evaluate the suitability of board based packaging material in the freezing and storage of food products			
	3.6 evaluate the suitability of board based packaging material in providing a substrate for advertising, labelling and bar coding			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Understand the promotional role and disposal arrangements for paper and board packaging	4.1 describe the role of paper and board packaging materials in promoting and advertising products 4.2 explain how paper and board packaging materials are best recycled and disposed of after use by wholesalers, retailers and consumers			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 112: Principles of Plastic and Cellulose Films in Food and Drink

Unit reference number: M/602/4565

Level: 3

Credit value: 4

Guided learning hours: 34

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of plastic and cellulose films in food and drink, in food operations or in a learning environment.

The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised national occupational standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of plastic and cellulose films in food and drink. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the sources and business use of plastic and cellulose films	1.1 describe the origins and sources of plastic and cellulose packaging films			
	1.2 explain how plastic and cellulose packaging materials can be used as part of a sustainable policy approach to the use of packaging films			
	1.3 explain what the business advantages might be for using plastic and cellulose packaging films over other types of packaging films			
	1.4 explain what the limitations and regulations are in the use of food safe packaging films			
2 Understand cellulose processing and its suitability as a packaging film	2.1 explain the structure of cellulose and its properties in providing a packaging film			
	2.2 describe how cellulose is processed into food safe packaging film			
	2.3 explain the purpose of cellulose packaging film for food products			
	2.4 summarise the grades of cellulose film available, their functionality and use of codes			
	2.5 describe the typical uses for cellulose packaging film for food products			
	2.6 evaluate the suitability of cellulose-based packaging film in the freezing and storage of food products			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand polythene based processing and suitability as packaging film	3.1 describe how polythene films are made			
	3.2 explain the properties and functionality of low density and high density polythene films			
	3.3 describe how polypropylene films are made			
	3.4 explain the properties and functionality of: – cast – oriented – coated oriented polypropylene films			
	3.5 explain the properties and functionality polyvinylchloride and polyvinylidenechoride films and their use as cling or shrink wrap films			
	3.6 evaluate the suitability of polythene based packaging film in the freezing and storage of food products			
4 Understand polycarbonate based processing and suitability as packaging material	4.1 describe how polycarbonate packaging material is made			
	4.2 explain the properties and functionality of polycarbonate packaging material			
	4.3 describe the typical uses for polycarbonate packaging material for food and drink products			
	4.4 evaluate the suitability of polycarbonate-based packaging material in the freezing and storage of food products			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
5 Understand the promotional role and disposal arrangements for plastic and cellulose based packaging	5.1 explain the suitability of plastic- and cellulose-based packaging material in providing a substrate for advertising, labelling and bar coding 5.2 explain the role of plastic and cellulose packaging material in promoting and advertising products 5.3 explain how plastic and cellulose packaging materials are best recycled and disposed of after use by wholesalers, retailers and consumers			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 113: Principles of Food Labelling in Food Operations

Unit reference number: T/602/4566

Level: 3

Credit value: 4

Guided learning hours: 30

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of food labelling, in food and drink operations or in a learning environment. The unit is designed for use primarily by technicians, managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of food labelling in food and drink. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Proficiency Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the purpose and regulation of labelling	1.1 describe the purpose of food labelling in the food and drink sector			
	1.2 explain the regulatory labelling requirements that control food and drink content and composition			
	1.3 explain the regulatory requirements and implications associated with mislabelling			
	1.4 explain how regulatory requirements are monitored through enforcement			
	1.5 clarify the role of labelling in product traceability and control			
2 Understand how labelling contributes to nutritional awareness and product quality	2.1 explain how food labelling contributes to consumer awareness of food nutritional content			
	2.2 evaluate the labelling schemes and protocols that are used to inform the public of food nutritional content			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
3 Understand the business use of food labelling	3.1	describe the processes, facilities and equipment that are required to label food			
	3.2	explain how to interpret process specifications to obtain accurate food data for inclusion in labelling specifications			
	3.3	explain how to develop, consult and agree labelling specifications			
	3.4	justify what arrangements are necessary to implement and communicate labelling specifications			
	3.5	describe different ways in which food data can be misrepresented by non-compliant labelling descriptions			
	3.6	explain the typical arrangements for organisation and control of the labelling processes			
	3.7	explain the risks associated with labelling policies and practices			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 114: Principles of Achieving Excellence in Food Operations

Unit reference number:	D/601/9944
Level:	4
Credit value:	4
Guided learning hours:	33

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of achieving excellence in food manufacturing or supply operations, or in a learning environment.

The unit is designed for use primarily by managers, technicians and others who carry out these FME workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of achieving excellence in food manufacturing or supply operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for qualifications in food and drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand food manufacturing excellence (FME)	1.1 explain the principle of continuous improvement and its importance within FME			
	1.2 analyse the role of quality improvement methodologies and their importance within FME including: – Six Sigma – Total Quality Management (TQM) – Kaizen			
	1.3 analyse the role of quality improvement tools and their importance within FME			
	1.4 clarify the role of sustainable improvement management systems and their importance within FME including: – change management – people and team development – organisational culture			
	1.5 summarise the main components of a FME approach that can provide sustainable and continuous productivity improvement			
	1.6 define the vision, purpose and scope of FME within own or a typical food sector organisation			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Understand how food manufacturing excellence (FME) can be achieved	2.1 justify how a FME approach is best developed and implemented to maximise organisational advantage			
	2.2 explain the importance and roles of a FME strategy and implementation/action plan to steer improvement within the business			
	2.3 analyse how best to drive FME implementation/utilisation using continuous improvement and organisational development managers and teams			
	2.4 summarise how quality improvement methodologies are best identified, utilised and evaluated within the business			
	2.5 summarise how quality improvement tools are best identified, utilised and evaluated within the business			
	2.6 justify at what level and how key decisions are best made within FME implementation/utilisation			
	2.7 clarify the role of senior management in FME implementation/utilisation			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the business outcomes and benefits of food manufacturing excellence (FME)	3.1 review the importance of identifying and measuring outputs and benefits in FME			
	3.2 evaluate how outputs are best identified, set and measured in FME			
	3.3 summarise the short-term benefits which can be achieved by FME			
	3.4 summarise the medium- to long-term benefits which can be achieved by FME			
	3.5 clarify how benefits are best justified and promoted to support organisational credibility			
	3.6 explain the critical importance of FME to business efficiency, success and sustainability			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 115: Principles of Improving Organisational Performance in Achieving Excellence in Food Operations

Unit reference number: R/601/9956

Level: 4

Credit value: 5

Guided learning hours: 35

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of improving organisational performance in achieving excellence in food manufacturing or supply operations, or in a learning environment. The unit is designed for use primarily by managers, technicians and others who carry out these FME workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of improving organisational performance in achieving excellence in food manufacturing or supply operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand how to improve organisational performance and how it contributes to food manufacturing excellence (FME)	1.1 summarise the purpose and overall objectives of improving organisational performance			
	1.2 clarify the importance and benefits of improving organisational performance to a FME approach			
	1.3 summarise how improving organisational performance is placed within and contributes towards a FME strategy or approach			
2 Understand the principles of improving organisational performance of food processing/supply capability	2.1 clarify the role of improving organisational performance in driving quality improvement of processes			
	2.2 explain how improving organisational performance is important in the DMAIC model for quality improvement and its relationship with Six Sigma			
	2.3 explain how improving organisational performance is important in the DMADV model for quality improvement and its relationship with Six Sigma			
	2.4 summarise how to organise plans for implementing performance improvement priorities in process capability including: – identification of solutions – solution testing – solution validation – solution agreement			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
	2.5	summarise how to implement solutions for performance improvement in process capability including: – identification – testing – validation – agreement			
	2.6	summarise how to identify the measures and targets needed to analyse performance improvement in process capability			
3 Understand the application of improving organisational performance to support food manufacturing excellence (FME)	3.1	summarise the type of management expertise, resources and systems required to improve organisational performance			
	3.2	summarise the type of technical expertise and resources required to improve organisational performance			
	3.3	explain how the process of improving organisational performance is best evaluated and reviewed to maximise the effectiveness of quality improvement and achievements			
	3.4	justify at what level and how key decisions are best made about improving organisational performance to sustain FME			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 116: Principles of Energy Efficiency in Food Operations

Unit reference number: H/601/9685

Level: 4

Credit value: 4

Guided learning hours: 24

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of energy efficiency, in food operations or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of energy efficiency in food operations. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand the principles of energy efficiency	1.1 explain how energy consumption impacts on climate change			
	1.2 explain the role of energy efficiency in achieving sustainability			
	1.3 explain how energy efficiency can help reduce carbon emissions			
	1.4 describe the benefits of:			
	– low-carbon energy			
	– energy efficiency			

Learning outcomes		Assessment criteria		Evidence type	Portfolio reference	Date
2	Understand the factors influencing the setting of energy efficiency targets	2.1	explain climate change legislation and how it controls organisational energy usage			
		2.2	describe the government targets and legal requirements for carbon reduction and climate change and their implications in food operations			
		2.3	explain how to use carbon footprints as a measure of energy efficiency			
		2.4	explain the principles of energy efficiency benchmarking as a method of identifying opportunities for improving energy efficiency			
		2.5	explain how to establish current levels of energy usage for all organisational activities			
		2.6	describe the areas of energy usage and opportunities for improving energy efficiency			
		2.7	explain how to develop targets for energy efficiency			
3	Understand the factors influencing support for energy efficiency	3.1	describe the methods for promoting organisational energy efficiencies			
		3.2	explain how to define and allocate roles and responsibilities for all those involved in improving energy efficiency			
		3.3	explain how to identify training needs and organise staff training to support the more efficient use of energy			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Understand the factors influencing the achievement of energy efficiency	4.1 describe the sources of low-carbon energy, including options for on-site energy generation			
	4.2 explain how to monitor and control energy efficiency			
	4.3 describe the barriers that can limit energy efficiency and the strategies that can be used to overcome these barriers			
	4.4 explain how process and product design can impact on energy efficiency			
	4.5 explain how process control and quality assurance can support energy efficiency			
	4.6 explain how to monitor, control and maintain sustainable energy usage			
5 Understand the factors necessary to assess the effectiveness of energy efficiency initiatives	5.1 explain how to evaluate the impact of measures to improve energy efficiency			
	5.2 explain how to complete an organisational cost/benefit analysis in respect to energy efficiency measures			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Unit 117: Principles of Food Policy and Regulation

Unit reference number: Y/601/9683

Level: 4

Credit value: 5

Guided learning hours: 36

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of food policy and regulation, in a food environment or in a learning environment. The unit is designed for use primarily by managers and others who carry out these workplace activities. It is also designed for those who plan to enter the food and drink industry or employees who wish to expand on their existing knowledge and understanding. The aim of the unit is to assess underpinning knowledge and understanding to recognised National Occupational Standards.

Assessment requirements/evidence requirements

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of food policy and regulation. It can be assessed on or off the job.

The learner must demonstrate their current knowledge and understanding, to meet all assessment criteria. Assessment methods appropriate to the needs of the learner must be used to generate satisfactory evidence of knowledge and understanding.

The Improve Assessment Strategy for Qualifications in Food and Drink sets out the overarching assessment requirements.

Assessment methodology

This unit is assessed in the workplace or in conditions resembling the workplace. Learners can enter the types of evidence they are presenting for assessment and the submission date against each assessment criterion. Alternatively, centre documentation should be used to record this information.

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Understand how to describe food policy and regulation	1.1 explain the legal and regulatory requirements that control the manufacture and supply of food			
	1.2 explain how ethical and social issues affect food businesses			
	1.3 describe how to access sources of advice and guidance that support food policy development			
	1.4 explain how to quantify the impact on food businesses of:			
	– legal			
	– regulatory			
	– ethical			
	– social requirements			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Understand how to develop food policy and procedures	2.1 explain the purpose of organisational policy and procedures			
	2.2 outline the effectiveness of methods used for collecting and analysing data			
	2.3 explain how the culture and values of businesses affect corporate governance			
	2.4 explain how to develop organisational food policy to support organisational culture and values			
	2.5 describe how to support the effective implementation of food policies			
	2.6 outline the methods used for communicating policies			
	2.7 explain how policy is influenced by and influences stakeholders			

Learning outcomes	Assessment criteria		Evidence type	Portfolio reference	Date
3 Know how to monitor food policies	3.1	outline the techniques used for monitoring policies and procedures			
	3.2	explain how to develop contingency processes to deal with policy failures			
	3.3	explain why quality assurance processes are needed to support organisational policy development and implementation			
	3.4	outline the methods for controlling policy and ensuring ongoing compliance with regulations			

Learner name: _____   Date:_____

Learner signature: _____   Date:_____

Assessor signature: _____   Date:_____

Internal verifier signature: _____   Date:_____
(*if sampled*)

Further information

To get in touch with us visit our 'Contact us' pages:

- Edexcel, BTEC and Pearson Work Based Learning contact details: qualifications.pearson.com/en/support/contact-us.html

- books, software and online resources for UK schools and colleges: www.pearsonschoolsandfecolleges.co.uk

Key publications

- *Adjustments for candidates with disabilities and learning difficulties, Access and Arrangements and Reasonable Adjustments, General and Vocational qualifications* (Joint Council for Qualifications (JCQ))

- *Supplementary guidance for reasonable adjustments and special consideration in vocational internally assessed units* (Pearson)

- *General and Vocational qualifications, Suspected Malpractice in Examination and Assessments: Policies and Procedures* (JCQ)

- *Equality Policy* (Pearson)

- *Recognition of Prior Learning Policy and Process* (Pearson)

- *UK Information Manual* (Pearson)

- *Pearson Edexcel NVQs, SVQs and competence-based qualifications – Delivery Requirements and Quality Assurance Guidance* (Pearson)

All of these publications are available on our website: qualifications.pearson.com

Further information and publications on the delivery and quality assurance of NVQ/Competence-based qualifications are available at our website on the Delivering BTEC pages. Our publications catalogue lists all the material available to support our qualifications. To access the catalogue and order publications, please go to the resources page of our website.

Useful publications

Related information and publications include:

- Centre Handbook for Pearson NVQs and Competence-based Qualifications published annually

- Functional Skills publications – specifications, tutor support materials and question papers

- the current Pearson publications catalogue and update catalogue.

Pearson publications concerning the Quality Assurance System and the internal and standards verification of vocationally related programmes can be found on the Pearson website.

NB: Some of our publications are priced. There is also a charge for postage and packing. Please check the cost when you order.

How to obtain National Occupational Standards

Improve Ltd
Ground Floor
Providence House
2 Innovation Close
Heslington
York
YO10 5ZF

Telephone: 0845 644 0448
Fax: 0845 644 0449
Email: info@improveltd.co.uk
Website: www.improveltd.co.uk

Professional development and training

Peason supports UK and international customers with training related to NVQ and BTEC qualifications. This support is available through a choice of training options offered in our published training directory or through customised training at your centre.

The support we offer focuses on a range of issues including:

- planning for the delivery of a new programme

- planning for assessment and grading

- developing effective assignments

- building your team and teamwork skills

- developing student-centred learning and teaching approaches

- building functional skills into your programme

- building effective and efficient quality assurance systems.

The national programme of training we offer can be viewed on our website (qualifications.pearson.com). You can request customised training through the website or by contacting one of our advisers in the Training from the Pearson team via Customer Services to discuss your training needs.

The training we provide:

- is active

- is designed to be supportive and thought provoking

- builds on best practice

- may be suitable for those seeking evidence for their continuing professional development.

Annexe A: Quality assurance

Key principles of quality assurance

A centre delivering Pearson qualifications must be a Pearson recognised centre and must have approval for qualifications that it is offering.

The centre agrees, as part of gaining recognition, to abide by specific terms and conditions relating to the effective delivery and quality assurance of assessment. The centre must abide by these conditions throughout the period of delivery.

Pearson makes available to approved centres a range of materials and opportunities to exemplify the processes required for effective assessment and provide examples of effective standards. Approved centres must use the guidance on assessment to ensure that staff who are delivering Pearson qualifications are applying consistent standards.

An approved centre must follow agreed protocols for: standardisation of assessors; planning, monitoring and recording of assessment processes; internal verification and recording of internal verification processes and dealing with special circumstances, appeals and malpractice.

Quality assurance processes

The approach to quality assured assessment is made through a partnership between a recognised centre and Pearson. Pearson is committed to ensuring that it follows best practice and employs appropriate technology to support quality assurance processes where practicable. The specific arrangements for working with centres will vary. Pearson seeks to ensure that the quality-assurance processes it uses do not inflict undue bureaucratic processes on centres, and works to support them in providing robust quality-assurance processes.

The learning outcomes and assessment criteria in each unit within this specification set out the standard to be achieved by each learner in order to gain each qualification. Pearson operates a quality-assurance process, designed to ensure that these standards are maintained by all assessors and verifiers.

For the purposes of quality assurance, all individual qualifications and units are considered as a whole. Centres offering this qualification must be committed to ensuring the quality of the units and qualification through effective standardisation of assessors and internal verification of assessor decisions. Centre quality assurance and assessment processes are monitored by Pearson.

The Pearson quality-assurance processes will involve:

- gaining centre recognition and qualification approval if a centre is not currently approved to offer Pearson qualifications
- annual visits to centres by Pearson for quality review and development of overarching processes and quality standards. Quality review and development visits will be conducted by a Pearson quality development reviewer
- annual visits by occupationally competent and qualified Pearson Standards Verifiers for sampling of internal verification and assessor decisions for the occupational sector
- the provision of support, advice and guidance towards the achievement of National Occupational Standards.

Centres are required to declare their commitment to ensuring quality and appropriate opportunities for learners that lead to valid and accurate assessment outcomes. In addition, centres will commit to undertaking defined training and online standardisation activities.

Annexe B: Centre certification and registration

Pearson Standards Verifiers will provide support, advice and guidance to centres to achieve Direct Claims Status (DCS). Pearson will maintain the integrity of Pearson NVQs through ensuring that the awarding of this qualification is secure. Where there are quality issues identified in the delivery of programmes, Pearson will exercise the right to:

- direct centres to take action

- limit or suspend certification

- suspend registration.

The approach of Pearson in such circumstances is to work with the centre to overcome the problems identified. If additional training is required, Pearson will aim to secure the appropriate expertise to provide this.

What are the access arrangements and special considerations for the qualifications in this specification?

Centres are required to recruit learners to Pearson qualifications with integrity.

Appropriate steps should be taken to assess each applicant's potential and a professional judgement should be made about their ability to successfully complete the programme of study and achieve the qualification. This assessment will need to take account of the support available to the learner within the centre during their programme of study and any specific support that might be necessary to allow the learner to access the assessment for the qualification. Centres should consult Pearson's policy on learners with particular requirements.

Pearson's policy on access arrangements and special considerations for Pearson qualifications aims to enhance access to the qualifications for learners with disabilities and other difficulties (as defined by the 2010 Equality Act) without compromising the assessment of skills, knowledge, understanding or competence. Please refer to *Access Arrangements and Special Considerations for BTEC and Pearson NVQ Qualifications* for further details. qualifications.pearson.com.

Assessment Strategy

for

Improve

Proficiency Qualifications

IPQs

accredited within the Qualifications and Credit Framework (QCF) and approved of by Improve

Table of Contents

Assessment Strategy

Section 1

1.1 Purpose

The purpose of this assessment strategy is to set out the quality assurance arrangements for the assessment and verification of Proficiency Qualifications for the food and drink sector. Information is provided about the experience, qualifications and occupational competence requirements for those involved in the process. It also details the evidence requirements and conditions of assessment necessary to achieve the Proficiency Qualifications. This strategy will be useful in informing learners, employers, assessors, quality assurance personnel and Awarding Organisations alike.

1.2 Scope

This assessment strategy covers Proficiency Qualifications which are accredited within the Qualifications and Credit Framework and approved by Improve[1]. The Qualifications are approved for use in England, Wales and Northern Ireland.

In Scotland, Improve approves Scottish Vocational Qualifications (SVQs), which are accredited for use in the Scottish Credit and Qualification Framework. A separate (SVQ) Assessment Strategy document is available for competence-based qualifications for the food and drink sector in Scotland.

All Proficiency Qualifications for the food and drink sector, which are approved by Improve and subject to the use of the Improve logo for this family of qualifications, are covered by this assessment strategy. Those Proficiency Qualifications which have additional regulatory or specialist assessment requirements are identified and dealt with in specific sections of this strategy.

1.3 Features

Of Proficiency Qualifications

Proficiency Qualifications in food and drink are designed for use in the food and drink sector. They cover the food supply chain from the availability and processing of raw materials through storage, transportation, wholesaling, manufacturing and processing, logistics and presentational processing in sales environments.

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[1] Improve is the Sector Skills Council for the Food and Drink Sector. For details visit www.improveltd.co.UK

They are competency-based qualifications designed for use in the workplace and first developed in 2008. Their purpose is to raise skills levels and performance across the workforce.

They ensure that individuals develop the skills and knowledge, which are exactly those needed to perform reliably and consistently at work. The knowledge content of the qualifications is designed to support and suit individual's needs. It will support those who require the basics, but will also develop those who require significantly more detailed knowledge and understanding.

This flexible approach to designing Proficiency Qualifications allows employers and individuals to select those competences which are critical to performance at work, and also to support progression in employment. This way it is possible to develop the workforce and produce the technicians and managers of tomorrow. With such a key focus on the development and recognition of competence at work, this qualification is ideal to use within workplace training and assessment systems. They will be essential to upskilling, driving up performance and increasing productivity across the food and drink sector.

Of the Qualifications and Credit Framework (QCF)

All qualifications accredited on the Qualification and Credit Framework are made up of units of assessment which are allocated a credit value. This credit value is based on the average amount of time taken to complete the learning and assessment required by each unit. The calculation is based on notional learning hours; 10 notional learning hours = 1 credit. Units with differing credit values are therefore a feature of qualifications, reflecting the varying learning and assessment requirements of units.

Credits become the common currency between qualifications and are accumulated in different sized qualifications. These are:

Award   1 - 12 credits
Certificate 13 – 36 credits
Diploma   37+ credits.

Each unit of assessment is also allocated a level which reflects the degree of challenge of each unit.

The units of assessment detail the learning outcomes and assessment criteria which a candidate can accumulate, and combine together within a qualification of the appropriate size and level to meet their individual and employer needs.

The Qualifications and Credit Framework

For further details, visit the Ofqual website *www.ofqual.gov.UK*

1.4 Equality of Opportunity and Diversity

Improve is committed to developing and implementing high quality qualifications for the Qualifications and Credit Framework (QCF) which comply with all current relevant legislation and Ofqual regulations. For further details of how we work to ensure equality of opportunity and diversity, please refer to our Equality and Diversity Policy.

Awarding Organisation policy, procedures and guidance will detail the equality of opportunity and diversity implications for assessors and verifiers.

Section 2

2.1 Working with Awarding Organisations

An effective working relationship between Improve and Awarding Organisations, whose markets relate to the food and drink sector, is central to the successful delivery of Improve's Sector Qualifications Strategy (SQS). Improve will continue to work closely with Awarding Organisations through its Awarding Organisation Forum, and to develop this forum, to ensure that the SQS can be effectively implemented, through the SQS Action Plan.

In addition to engagement and technical activity at a forum level, individual memoranda of understanding and/or action plans are agreed with each Awarding Organisation to drive forward a range of operational and development activity.

Improve respects the individuality and confidentiality of each Awarding Organisation offering qualifications to the sector and the market place in which they are offered. Improve understands the need for differentiation in types and levels of service provided by Awarding Organisations to meet wide-ranging conditions across the sector, its labour market and potential sector entrants.

2.2 External quality control of assessment

The sector view is that it is important for external quality control to be achieved through an effective external quality sampling process combined with an annual approved centre risk rating system. Primarily, external quality control is aimed at improving internal quality assurance and assessment practice, and the effective exchange of information between centres, Awarding Organisations and Improve.
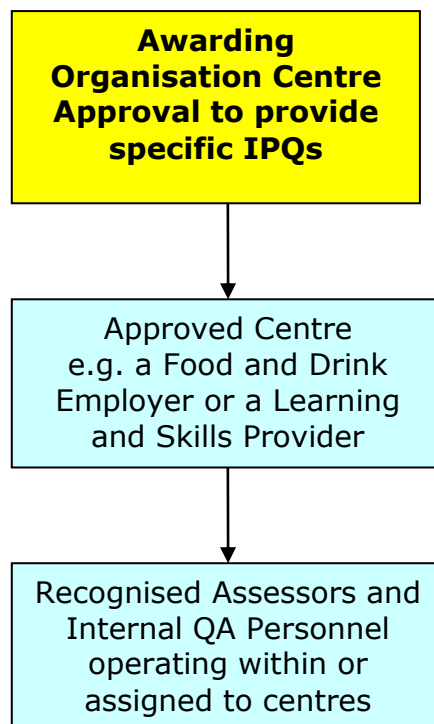
External quality control will be achieved through these requirements:

- Each year external quality assurance personnel will complete the recommended number of days of Continuing Professional Development (CPD), comprised of training or other developmental activities relevant to the food and drink sector and approved by the Awarding Organisation. Training should include relevant updating in respect of changes to legislation and regulations impacting on the sector, standardisation activities and good practice developments in assessment and improving quality assurance. Improve will be invited by Awarding Organisations to observe and/or provide relevant input to CPD activity as appropriate.

- Awarding Organisations will operate a risk rating system that is applied to each active approved centre. Details of the risk rating system should be provided as part of the submission for accreditation of the qualification to the relevant qualifications regulatory authority. The Awarding Organisations will carry out risk assessment and risk rate each approved centre for food and drink Proficiency Qualifications. External quality assurance activity, and in particular the scope and rigour of sampling, is required to reflect the risk rating status of each centre.

- Improve, through its Standards and Qualifications Development team, will maintain ongoing dialogue with Awarding Organisations to monitor practices, consider issues and gain feedback, which impact on qualifications design and the use of units of assessment.

2.3 Approval of centres to offer Proficiency Qualifications

Approval procedures and quality assurance systems are developed by Awarding Organisations. Awarding Organisations will approve and quality assure provision of Proficiency Qualifications within centres. This allows assessment and quality assurance services to be tailored to the professional needs of centres in the best interests of candidates.

Awarding Organisation Centre Approval to provide specific IPQs

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Approved Centre e.g. a Food and Drink Employer or a Learning and Skills Provider

↓

Recognised Assessors and Internal QA Personnel operating within or assigned to centres

Section 3

3.1 Approved Centres

Approved Centres who are learning and skills providers deliver training and assessment services to learners and their employers in and around the workplace. Providers usually employ or contract with assessors, who often work peripatetically, to visit learners in their workplace at pre-arranged or contracted times.

For some employers, there may be business and operational advantages to becoming a centre to deliver Proficiency Qualifications and obtaining centre approval from an Awarding Organisation. This involves setting up and maintaining the quality systems and controls required by Awarding Organisations to offer Proficiency Qualifications within the company. Employers deliver training and assessment services to learners employed in their workplace. They use assessors (sometimes referred to as in-house assessors as they are company employees) to assess learner employees. However, they may also contract out externally with assessors who work peripatetically, to visit learners in their workplace at contracted times.

Units of assessment completed by learners and assessment practice are subject to internal quality assurance through an agreed and planned sampling process. This is carried out by a centre's internal quality assurance personnel, who may be employed or under contract, to quality assure the assessment processes and practice.

3.2 Occupational competence of assessors

The role of an assessor is a demanding and complex one, requiring a high degree of both interpersonal and organisational skills. They are required to make accurate and objective decisions as to whether the learner's performance meets the assessment requirements laid out in units of assessment.

For assessments to be considered valid, the assessor must meet the following requirements. Any assessments carried out by personnel who do not meet these requirements will be deemed a contribution to workplace testimony.

Assessors are required to:

- Provide current evidence of competence, knowledge and understanding in the areas to be assessed, to the satisfaction of the Awarding Organisation. This will normally be achieved through demonstrating competence in the roles which are to be assessed, which may be recorded in company training records. Alternatively, this can be demonstrated by relevant experience and continuing professional development which may include the achievement of qualifications relevant to the areas being assessed.

- Demonstrate competent practice in workplace assessment methods, and must demonstrate understanding of the principles and practices of the assessment process. This practice must be commensurate with the National Occupational Standard for Learning and Development March 2010, Standard 9; Assess Learner Achievement. They are not required to hold assessor qualifications or units, but the achievement of these will

indicate assessor capability at a given point, and this should be complemented by continuous professional development to update and maintain practice standards. Assessor capability may also be demonstrated by the outcomes of formal training in assessment techniques for company based training systems or qualifications, or for auditing against quality criteria for an externally audited quality standard. Recognition of assessors in this way is only valid between a centre and an Awarding Organisation in respect of specific qualifications, and is not transferable to other bodies or qualifications.

- Demonstrate their continuing professional development to ensure they are up to date with work practices in their sector area of expertise and developments in the Proficiency Qualifications they assess.

- Have a full and current understanding of the units of assessment and requirements of the qualifications being assessed.

- Operate safely as an assessor in a food environment, therefore it is strongly recommended that a relevant food safety/hygiene qualification is achieved.

Assessors 'in training' who are not fully recognised as competent by Awarding Organisations may carry out assessment practice. For the period in training and working towards recognition, the assessor must have assessment activity monitored and signed off (countersigned) by a fully recognised and competent assessor. The 'in training' period should be limited to twelve months and have clear development goals set for achieving recognition and competence.

3.3 Occupational competence of internal quality assurance personnel

Approved centres appoint internal quality assurance personnel and their role is to ensure consistency, maintain and improve the quality of assessment within the centre. The internal quality assurance personnel will monitor assessment activities and provide feedback to assessors, co-ordinate standardisation and provide guidance to assessors.

For assessments and internal quality assurance to be considered valid, the internal quality assurance personnel must meet the following requirements:

- Demonstrate sufficient and current understanding of the qualifications to be internally quality assured, and know how they are applied in business, to the satisfaction of the Awarding Organisation. Relevant knowledge and understanding of the workplace areas to be sampled during quality assurance activity is required. Relevant experience of working in or with the sector area(s) is preferable.

- Demonstrate competent practice in internal quality assurance of assessment, and demonstrate understanding of the principles and practices of internal quality assurance of assessment. This practice must be commensurate with the National Occupational Standard for Learning and Development March 2010, Standard 11; Internally monitor and maintain the quality of assessment. They are not required to hold internal quality assurance of assessment qualifications or units, but the achievement of these will indicate capability at a given point, and this should be complemented by continuous professional development to update and maintain practice standards. Internal quality assurance of

assessment capability may also be demonstrated by the outcomes of formal training in quality assurance and improvement techniques for company based training systems or qualifications, or for auditing against quality criteria for an externally audited quality standard. Recognition of internal quality assurance personnel in this way is only valid between a centre and an Awarding Organisation in respect of specific qualifications, and is not transferable to other bodies or qualifications.

- Demonstrate their continuing professional development to ensure they are up to date with work practices and developments in the qualifications they quality assure.

- Know where and when to access specialist sector advice, where additional specialist or technical knowledge relating to assessment and quality assurance decisions are concerned.

- Operate safely in a food environment, therefore it is strongly recommended that a relevant food safety/hygiene qualification is achieved.

Internal quality assurance personnel 'in training' who are not fully recognised as competent by Awarding Organisations may carry out internal quality assurance of assessment practice. For the period in training and working towards recognition, they must have quality assurance activity monitored and signed off (countersigned) by a fully recognised and competent internal quality assurer. The 'in training' period should be limited to twelve months and have clear development goals set for achieving recognition and competence.

Section 4

4.1 Assessment evidence

Proficiency Qualifications are specifically designed to be assessed in the workplace therefore workplace performance evidence is essential for all units of assessment. The Proficiency Qualifications contain three types of units of assessment.

1. Occupational skills units must normally be assessed by observation in the workplace. Assessment requirements and guidance are outlined on each unit.

2. Occupational knowledge units must be assessed through questioning methods relevant to the needs of the learner on or off-the job. It is important to follow the assessment requirements and guidance outlined on each unit.

3. Underpinning knowledge units must be assessed through questioning methods relevant to the needs of the learner on or off-the-job. It is important to follow the assessment requirements and guidance outlined on each unit.

The use of employer's training and assessment processes and records in the workplace are strongly encouraged, where this supports evidence of competent learner performance. This is particularly significant where such evidence is audited as part of external quality standards relevant to the food and drink sector. Learner records of assessment and internal quality assurance activity will in this case reflect employer systems and records.

Where employer's assessment processes or records are insufficiently rigorous to generate credible evidence of learner performance, then formal assessment processes must be implemented to confirm learner's competence and this evidence captured in portfolio based records of assessment and internal quality assurance.

4.2 Workplace testimony

Workplace personnel, who are not recognised as assessors, may contribute to the assessment process by providing workplace testimony. Those providing the testimony must be familiar with the activity being carried out and able to make a judgement that the task has been completed to organisational procedures and to the required standard. The person providing the testimony is not in a position to decide if the learner is competent overall, they are only able to judge the specific instance they observe. The overall decision regarding competence of the learner will be made by the assessor and subject to internal quality assurance of assessment.

4.3 The use of simulation for providing evidence

The use of simulation to replace normal working practice is not acceptable.

The only exception to this rule is for units of assessment which address rare conditions or emergency situations which might endanger learner safety. These exceptions are clearly defined in the assessment guidance in the relevant unit of assessment. In such cases this will require the agreement of external quality assurance personnel.

When simulations are used they must be designed to mirror the same activity, as it would be carried out in the workplace and include:

• The number and sequence of actions needed to complete the activity

• The number and complexity of factors needed to complete the activity

• The urgency with which the activity must be completed and

• Achievement of an outcome(s) in the same time constraints that might apply in the workplace

Simulation cannot be used to provide the sole evidence for any one complete unit of assessment

4.4 Recognition of prior learning and experience

Evidence from past achievement may be included as evidence within assessment methods for Proficiency Qualifications.

Evidence of knowledge and understanding can be presented as supplementary evidence, provided it is a measurable assessed outcome of learning which links to outcomes detailed in the units of assessment and confirms current competence.

Assessors should make best use of all the assessment methods available to them in ensuring the most reliable and effective use is made of claims of prior learning and experience which relate to the individual learner's circumstances.

All learners, presenting evidence from past achievements, must also be able to demonstrate current competence.

Section 5

5.1 The role of external quality assurance personnel

Awarding Organisations appoint external quality assurance personnel to perform a number of quality assurance tasks on their behalf. They visit centres to monitor the assessment and internal quality assurance processes and sample learners work to ensure that standards are maintained and are compliant with Awarding Organisation procedures. External quality assurance personnel also have a developmental role in assisting centres to develop best practice and to provide information on new qualifications and developments in assessment and quality assurance.

External quality assurance personnel are required to:

- Demonstrate sufficient and current understanding of the areas within the sector being externally quality assured.

- Demonstrate sufficient and current understanding of the Proficiency Qualifications to be externally quality assured, and know how they are applied in the sector, to the satisfaction of the Awarding Organisation.

- Demonstrate competent practice in external quality assurance of assessment, and demonstrate understanding of the principles and practices of external quality assurance of assessment. This practice must be commensurate with the National Occupational Standard for Learning and Development March 2010, Standard 12; Externally monitor and maintain the quality of assessment. They are not required to hold external quality assurance of assessment qualifications or units, but the achievement of these will indicate capability at a given point, and this should be complemented by continuous professional development to update and maintain practice standards. External quality assurance of assessment capability may also be demonstrated by the outcomes of formal training in quality assurance and improvement techniques for company based training systems or qualifications, or for auditing against quality criteria for an externally audited quality standard. Recognition of external quality assurance personnel in this way is only valid between a centre and an Awarding Organisation in respect of specific qualifications, and is not transferable to other bodies or qualifications.

- Complete a minimum of two days Continuing Professional Development (CPD) each year, composed of training or other developmental activities relevant to the food and drink sector and approved by the Awarding Organisation.

- Have good report writing, auditing and communication skills to the satisfaction of the Awarding Organisation

- Know where and when to access specialist sector advice, where additional specialist knowledge relating to assessment and quality assurance decisions is concerned.

5.2 External quality assurance of assessment for employer approved centres

Awarding Organisations approving employer centres may wish to consider flexibilities in the external quality assurance of these centres to meet the specific learning and development needs of employers and employees (learners). The purpose of these flexibilities is to build effective and pragmatic links to employer training, where the external quality assurance of proficiency qualifications is not compromised in principle, but that the application of external quality assurance is better aligned to good workplace training and development practice to maintain the required rigour.

Flexibilities in external quality assurance of assessment can only be considered where the employer can demonstrate a sufficiently structured and internally quality assured approach to learning, development and assessment. In the food sector this is often linked to the use of externally recognised quality assurance arrangements (e.g. BRC, Efsis, ISO 9000 series). The external audit of training systems and records implicated by some of these arrangements will provide additional evidence to Awarding Organisations of the rigour of internal quality assurance.

To approve such employer centres Awarding Organisations will work closely with appropriate employers to evaluate their training systems. This may include;

1   the alignment/mapping of employers training and assessment arrangements to proficiency qualifications

2   an analysis of the effectiveness of internal quality and recording systems

3   evaluating the extent to which external audits of training contribute to overall quality arrangements.

Flexible external quality assurance arrangements to align with the training systems of individual employers in an employer centre may not always be necessary and will normally comply with section 5.1. However, flexibilities may be agreed as an outcome of the evaluation activity, where a rationale for such flexibility is justified. Awarding Organisations will formally agree the arrangements with the employer centres.

For example, a sector specialist external quality assurer may be involved in the evaluation, setting up and approval of an employer centre to ensure that technical expertise is suitably involved in recognising employer training and the centre, allowing a non-sector external quality assurer to provide ongoing external quality assurance of assessment. In this instance, the sector specialist external quality assurer should be available for consultation and to re-evaluate the centre should the employer training systems or circumstances change.

Annexe 1

1.1 The Qualifications for Proficiency in Food Manufacturing Excellence (FME)

The Qualifications (Awards, Certificates, Diplomas) for Proficiency in Food Manufacturing Excellence have additional assessment and quality assurance requirements to those set out in sections 1 – 5 of this strategy. These qualifications are aimed at developing, confirming competence and sustaining a mix of skills which will support lean, improvement and change management practice in food and drink manufacturing across the sector. These skills are vitally important to the future economic success of the sector. The skills are critical to driving improvements in food manufacturing and processing from both a technical as well as practical perspective, and more importantly sustaining these improvements. It is also critical because the mix of skills is based upon empowerment, company cultural development and visionary leadership and management.

With such a significant range of competences set out, employers feel that it is important to fully define the types of assessment and quality assurance requirements for this qualification, which will make a positive difference to their operations through skills, in this business critical area.

1.2 Occupational competence of assessors for FME

The requirements below are in addition to those set out in section 3 of this assessment strategy:

Assessors are required to:

- Have experience in the implementation, application and sustainability of lean and/or improvement skills practice in relevant manufacturing, processing or logistics roles in the food and drink sector, where there have been measurable and beneficial productivity gains to companies.

- Demonstrate achievement in learning and/or competence in lean and improvement skill practice in the food and drink sector to the satisfaction of the Awarding Organisation. Examples may include; green/black belt 6 sigma courses, Proficiency Qualification in Food Manufacturing Excellence, N/SVQ in Business Improvement Techniques at an appropriate level.

- Have a sound underpinning achievement in the application of mathematics and communication in order to demonstrate competence in using and articulating the mathematical requirements of improvement techniques.

Assessors who cannot demonstrate that they are working directly and currently in the food and drink sector in a leading edge lean management and implementation role are required to undertake at least one annual update and refresher training session, which covers implementation of improvement techniques. The session should be provided by an approved centre and agreed by the external quality assurer.

Assessors who cannot demonstrate that they are working directly and currently in the food and drink sector in a leading edge change management/implementation role are required to undertake at least one annual update and refresher training session, which covers leadership, management, workplace cultural development and sustainability of lean and improvement practice. The session should be provided by an approved centre and agreed by the external quality assurer.

These annual update and refresher training sessions will ensure that both lean improvement techniques **and** leadership, management, workplace cultural development and sustainability of lean and improvement practice in the food and drink sector are

- assessed using best practice in the workplace

- reflecting the means by which techniques are currently implemented and sustained in the workplace

- reflecting the means by which workforce development supports and sustains the improvement culture in the workplace

- supporting effective and measurable improvement and productivity gains in the workplace.

1.3 Occupational competence of internal quality assurance personnel for FME

Internal quality assurers who cannot demonstrate that they are working directly and currently in the food and drink sector in a leading edge lean management and implementation role are required to undertake at least one annual update and refresher training session, which covers implementation of improvement techniques. The session should be provided by an approved centre and agreed by the external quality assurer.

Internal quality assurers who cannot demonstrate that they are working directly and currently in the food and drink sector in a leading edge change management/implementation role are required to undertake at least one annual update and refresher training session, which covers leadership, management, workplace cultural development and sustainability of lean and improvement practice. The session should be provided by an approved centre and agreed by the external quality assurer.

These annual update and refresher training sessions will ensure that both lean improvement techniques **and** leadership, management, workplace cultural development and sustainability of lean and improvement practice in the food and drink sector are

- quality assured using best practice in the workplace

- reflecting the means by which techniques are currently implemented and sustained in the workplace

- reflecting the means by which workforce development supports and sustains the improvement culture in the workplace

- supporting effective and measurable improvement and productivity gains in the workplace.

1.4 Occupational competence of external quality assurance personnel for FME

External quality assurance personnel must meet the requirements set out in section 5 of this assessment strategy. In addition;

- External quality assurers who cannot demonstrate that they are working directly and currently in the food and drink sector in a leading edge lean management and implementation role are required to undertake at least one annual update and refresher training session, which covers implementation of improvement techniques. The session should be provided by the Awarding Organisation.

- External quality assurers who cannot demonstrate that they are working directly and currently in the food and drink sector in a leading edge change management/implementation role are required to undertake at least one annual update and refresher training session, which covers leadership, management, workplace cultural development and sustainability of lean and improvement practice. The session should be provided by the Awarding Organisation.

These annual update and refresher training sessions will ensure that both lean improvement techniques **and** leadership, management, workplace cultural development and sustainability of lean and improvement practice in the food and drink sector are

- quality assured using best practice in the workplace

- reflecting the means by which techniques are currently implemented and sustained in the workplace

- reflecting the means by which workforce development supports and sustains the improvement culture in the workplace

- supporting effective and measurable improvement and productivity gains in the workplace.

Annexe 2

1.1 The Level 2 Award in Proficient Poultry Meat Inspection

This Proficiency Qualification has additional assessment and quality assurance requirements to those set out in sections 1 – 5 of this strategy.

From January 2009 Plant Inspection Assistants (PIAs), who carry out post-mortem inspection of poultry and who are not previously qualified, need to achieve this Proficiency Qualification to comply with regulation and discharge their responsibilities effectively. PIAs suitably qualified before January 2009 will not be required to achieve this qualification, unless an employer deems this necessary in the interest of updating skills and personal development.

This qualification assesses the proficiency of PIAs to carry out poultry post-mortem checks and comply with food safety management procedures, and will confirm their understanding of what is required to do the job. The qualification can be achieved in respect of post-mortem inspection of one of four specific types of bird; broilers & hens, ducks & geese, non-hunted game birds or turkeys.

1.2 The Role of Poultry Processing Company Staff

Wherever possible, assessment and quality assurance should be conducted by supervisors, managers or other suitably experienced staff employed by poultry processing companies and carried out in the workplace.

Where the capacity or capability of the company is not geared to conduct assessment and quality assurance to the required standards, then external services can be used to provide the quality assurance roles of the qualification. Such assessors and quality assurance personnel are referred to as 'peripatetic'.

However, the qualification cannot be awarded without the involvement of relevant company personnel managing or otherwise involved with the PIA. Company personnel must contribute to confirming the competence of the PIA, by providing observations, witness testimonies or other supplementary evidence to support assessment decisions in the workplace. External quality assurance personnel will be required to check this provision within the sampling plan for external quality assurance.

1.3 Occupational competence of assessors

The requirements below are in addition to those set out in section 3 of this assessment strategy:

Assessors are required to:

- Provide current evidence of competence and understanding in the post-mortem inspection of poultry, to the satisfaction of the Awarding Organisation. This may be achieved through employment, experience and/or continuing professional development which may include the achievement of vocational qualifications relevant to poultry meat inspection.

1.4 Occupational competence of internal quality assurance personnel

The requirements below are in addition to those set out in section 3 of this assessment strategy:

Internal quality assurers are required to:

- Demonstrate sufficient and current understanding of post-mortem inspection of poultry to be internally quality assured, and know how they are applied in the PIA role, to the satisfaction of the Awarding Organisation.