

Pearson Edexcel Level 2 Award and Certificate for Proficiency in Food Manufacturing Excellence

Specification

Competence-based qualifications

For first registration September 2010

Issue 4

Edexcel, BTEC and LCCI qualifications

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This specification is Issue 4. Key changes are listed in the summary table on the next page. We will inform centres of any changes to this issue. The latest issue can be found on the Pearson website: qualifications.pearson.com

This qualification was previously known as:

Edexcel Level 2 Award, Certificate and Diploma for Proficiency in Food Manufacturing Excellence (QCF)

The QN remains the same.

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ISBN 9781446953365

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Summary of Pearson Edexcel Level 2 Award and Certificate for Proficiency in Food Manufacturing Excellence specification Issue 4 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	Page 1
Definition of sizes of qualifications aligned to TQT	Page 2
TQT value added	Pages 7-12
Guided learning definition updated	Page 20
QCF references removed from unit titles and unit levels in all units	Pages 23-279

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 it 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 2 Award and Certificate for Proficiency in Food Manufacturing Excellence:

Qualification title	Qualification Number (QN)	Accreditation start date
Pearson Edexcel Level 2 Award for Proficiency in Food Manufacturing Excellence	501/0877/3	01/09/10
Pearson Edexcel Level 2 Certificate for Proficiency in Food Manufacturing Excellence	501/0876/1	01/09/10

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 2 Award and Certificate for Proficiency in Food Manufacturing Excellence

These qualifications:

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

The Pearson Edexcel Level 2 Award and Certificate for Proficiency in Food Manufacturing Excellence have been approved as components required for the Food and Drink Manufacturing Apprenticeship framework.

What is the purpose of these qualifications?

These qualifications are designed for learners who are working in a food manufacture or supply chain environment and offer a sustainable Continuous Improvement Programme for the workplace. They offer learners the opportunity to develop skills and knowledge required to prove competence at work. They will also suit learners who are competent at core production and/or manufacturing activities and are looking for ways of developing existing skills and knowledge to support productivity.

Who are these qualifications for?

These qualifications are 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 qualifications.

What are the benefits of these qualifications to the learner and employer?

These qualifications require individuals to demonstrate competence against National Occupational Standards (NOS) which are based on the needs of the food manufacturing industry as defined by Improve, the Sector Skills Council. As such it contributes to the development of skilled labour in the sector. This qualification may contribute towards the competence and knowledge elements of an Apprenticeship.

What are the potential job roles for those working towards these qualifications?

- 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 these qualifications?

These qualifications make up part of a suite of apprenticeship qualifications within Pearson's Food and Drink Manufacturing sector. Learners can progress from this qualification to Levels 3 and 4 for Proficiency in Food Manufacturing Excellence.

What is the qualification structure of the Pearson Edexcel Level 2 Award for Proficiency in Food Manufacturing Excellence?

Individual units can be found in the Units section. The level and credit value are given on the first page of each unit.

The Total Qualification Time (TQT) for this qualification is 100.

The Guided Learning Hours for this qualification are 86.

To achieve the full Level 2 Award, learners must achieve a minimum of 10 credits, comprising the following combination of credits from each of the three unit groups:

Group A – minimum of 4 credits

Group B – minimum of 4 credits

Group C – it is not mandatory to take any units from Group C but up to 3 credits can be achieved.

Any further credit achieved up to 12 credits will be recorded with all units that have been passed in the qualification.

Group A – Working with Others

Credit value required: minimum 4.

Unit 1: H/601/2896 – Work Effectively with Others in Food Operations

Unit 2: K/601/2897 – Understand how to Work Effectively with Others in Food Operations

Unit 3: T/601/2899 – Maintain Product Quality in Food Operations

Unit 4: H/601/2901 – Understand how to Maintain Product Quality in Food Operations

Unit 5: K/601/2902 – Maintain Workplace Food Safety Standards in Operations

Unit 6: M/601/2903 – Understand how to Maintain Workplace Food Safety Standards in Operations

Unit 7: M/601/2917 – Maintain Workplace Health and Safety in Food Operations

Unit 8: T/601/2918 – Understand how to Maintain Workplace Health and Safety in Food Operations

Unit 9: A/601/2919 – Contribute to Environmental Safety in Food Operations

Unit 10: M/601/2920 – Understand how to Contribute to Environmental Safety in Food Operations

Unit 11: T/601/2921 – Contribute to the Maintenance of Plant and Equipment in Food Operations

Unit 12: A/601/2922 – Understand how to Contribute to the Maintenance of Plant and Equipment in Food Operations

- Unit 13: F/601/2923 – Contribute to the Development of Product Specifications in Food Manufacture
- Unit 14: J/601/2924 – Understand how to Contribute to the Development of Product Specifications in Food Manufacture
- Unit 15: L/601/2925 – Contribute to Sustainable Practice in Food Operations
- Unit 16: R/601/2926 – Understand how to Contribute to Sustainable Practice in Food Operations

Group B – Tools and Techniques

Credit value required: minimum 4.

- Unit 17: Y/601/2927 – Organise and Improve Work Activities for Achieving Excellence in Food Operations
- Unit 18: D/601/2928 – Understand how to Organise and Improve Work Activities for Achieving Excellence in Food Operations
- Unit 19: H/601/2929 – Contribute to Continuous Improvement for Achieving Excellence in Food Operations
- Unit 20: Y/601/2930 – Understand how to Contribute to Continuous Improvement for Achieving Excellence in Food Operations
- Unit 21: D/601/2931 – Contribute to the Measurement and Collection of Data for Achieving Excellence in Food Operations
- Unit 22: H/601/2932 – Understand how to Contribute to the Measurement and Collection of Data for Achieving Excellence in Food Operations
- Unit 23: K/601/2933 – Contribute to the Application of Improvement Techniques for Achieving Excellence in Food Operations
- Unit 24: M/601/2934 – Understand how to Contribute to the Application of Improvement Techniques for Achieving Excellence in Food Operations
- Unit 25: T/601/2935 – Undertake Proactive Plant Maintenance in Food Operations
- Unit 26: A/601/2936 – Understand how to Undertake Proactive Plant Maintenance in Food Operations
- Unit 27: F/601/2937 – Contribute to the Development of Standard Operating Procedures (SOP) in Food Operations
- Unit 28: J/601/2938 – Understand how to Contribute to the Development of Standard Operating Procedures (SOP) in Food Operations
- Unit 29: F/601/2940 – Reduce and Manage Conflict in Achieving Excellence in Food Operations
- Unit 30: J/601/2941 – Understand how to Reduce and Manage Conflict in Achieving Excellence in Food Operations
- Unit 31: L/601/2942 – Contribute to Compliance for Achieving Excellence in Food Operations

- Unit 32: R/601/2943 – Understand how to Contribute to Compliance for Achieving Excellence in Food Operations
- Unit 33: Y/601/2944 – Contribute to Problem Diagnosis in Food Manufacture
- Unit 34: D/601/2945 – Understand how to Contribute to Problem Diagnosis in Food Manufacture
- Unit 35: H/601/2946 – Contribute to Problem Resolution in Food Manufacture
- Unit 36: K/601/2947 – Understand how to Contribute to Problem Resolution in Food Manufacture

Group C – Food Manufacturing Excellence Knowledge

Credit value required: maximum 3.

- Unit 37: A/601/2631 – Principles of HACCP-based Food Safety Systems
- Unit 38: L/601/2701 – Principles of Sustainability in Food Operations
- Unit 39: M/601/2951 – Principles of Workplace Organisation Techniques in Food Operations
- Unit 40: A/601/2953 – Principles of Improvement in Food Operations
- Unit 41: F/601/2954 – Principles of Continuous Improvement Techniques (Kaizen) in Food Operations
- Unit 42: J/601/2955 – Principles of Flow Process Analysis in Food Operations
- Unit 43: D/601/2959 – Principles of Measurement System Analysis (MSA) in Food Operations
- Unit 44: Y/601/2961 – Principles of Lead Time Analysis in Food Operations
- Unit 45: H/601/2963 – Principles of Basic Statistical Analysis in Food Operations
- Unit 46: K/601/2964 – Principles of Taguchi Linear Graphs in Food Operations
- Unit 47: T/601/2966 – Principles of Flexible Production and Manpower Systems in Food Operations
- Unit 48: F/601/2968 – Principles of Statistical Process Control Procedures (SPC) in Food Operations
- Unit 49: J/601/2969 – Principles of Design of Experiments (DOE) in Food Operations
- Unit 50: A/601/2970 – Principles of Quality Function Deployment (QFD) in Food Operations
- Unit 51: F/601/2971 – Principles of Response Surface Methodology in Food Operations
- Unit 52: L/601/2973 – Principles of Value Stream Mapping (VSM) in Food Operations

- Unit 53: R/601/2974 – Principles of Visual Management Systems in Food Operations
- Unit 54: Y/601/2975 – Principles of Analysing and Selecting Areas for Achieving Excellence in Food Operations
- Unit 55: D/601/2976 – Principles of Failure Modes and Effects Analysis (FMEA) in Food Operations
- Unit 56: H/601/2977 – Principles of Six Sigma Process Mapping in Food Operations
- Unit 57: K/601/2978 – Principles of Six Sigma Methodology in Food Operations
- Unit 58: M/601/2979 – Principles of Six Sigma Metrics in Food Operations
- Unit 59: H/601/2980 – Principles of a Set-up Reduction Programme in Food Operations
- Unit 60: K/601/2981 – Principles of Mistake/Error Proofing (Poka Yoke) in Food Operations
- Unit 61: M/601/2982 – Principles of a Characteristic Selection Matrix in Food Operations
- Unit 62: A/601/2984 – Principles of Capability Studies in Food Operations
- Unit 63: F/601/2985 – Principles of Multi-Variance Charts in Food Operations
- Unit 64: J/601/2986 – Principles of Hypothesis Testing in Food Operations
- Unit 65: L/601/2987 – Principles of Evolutionary Operations (EVOP) in Food Operations
- Unit 66: Y/601/2989 – Principles of Central Limit Theorem and Confidence Intervals in Food Operations
- Unit 67: L/601/2990 – Principles of Single Minute Exchange of Dies (SMED) in Food Operations

What is the qualification structure of the Pearson Edexcel Level 2 Certificate for Proficiency in Food Manufacturing Excellence?

Individual units can be found in the Units section. The level and credit value are given on the first page of each unit.

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

The Guided Learning Hours for this qualification are 216.

To achieve the full Level 2 Certificate, learners must achieve a minimum of 27 credits, comprising the following combination of credits from each of the three unit groups:

Group A – a minimum of 12 credits

Group B – a minimum of 12 credits

Group C – it is not mandatory to take any units from Group C, but up to 7 credits can be achieved.

Any further credit achieved up to 36 credits will be recorded with all units that have been passed in the qualification.

Group A – Working with Others

Credit value required: minimum 12.

Unit 1: H/601/2896 – Work Effectively with Others in Food Operations

Unit 2: K/601/2897 – Understand how to Work Effectively with Others in Food Operations

Unit 3: T/601/2899 – Maintain Product Quality in Food Operations

Unit 4: H/601/2901 – Understand how to Maintain Product Quality in Food Operations

Unit 5: K/601/2902 – Maintain Workplace Food Safety Standards in Operations

Unit 6: M/601/2903 – Understand how to Maintain Workplace Food Safety Standards in Operations

Unit 7: M/601/2917 – Maintain Workplace Health and Safety in Food Operations

Unit 8: T/601/2918 – Understand how to Maintain Workplace Health and Safety in Food Operations

Unit 9: A/601/2919 – Contribute to Environmental Safety in Food Operations

Unit 10: M/601/2920 – Understand how to Contribute to Environmental Safety in Food Operations

Unit 11: T/601/2921 – Contribute to the Maintenance of Plant and Equipment in Food Operations

Unit 12: A/601/2922 – Understand how to Contribute to the Maintenance of Plant and Equipment in Food Operations

- Unit 13: F/601/2923 – Contribute to the Development of Product Specifications in Food Manufacture
- Unit 14: J/601/2924 – Understand how to Contribute to the Development of Product Specifications in Food Manufacture
- Unit 15: L/601/2925 – Contribute to Sustainable Practice in Food Operations
- Unit 16: R/601/2926 – Understand how to Contribute to Sustainable Practice in Food Operations

Group B – Tools and Techniques

Credit value required: minimum 12.

- Unit 17: Y/601/2927 – Organise and Improve Work Activities for Achieving Excellence in Food Operations
- Unit 18: D/601/2928 – Understand how to Organise and Improve Work Activities for Achieving Excellence in Food Operations
- Unit 19: H/601/2929 – Contribute to Continuous Improvement for Achieving Excellence in Food Operations
- Unit 20: Y/601/2930 – Understand how to Contribute to Continuous Improvement for Achieving Excellence in Food Operations
- Unit 21: D/601/2931 – Contribute to the Measurement and Collection of Data for Achieving Excellence in Food Operations
- Unit 22: H/601/2932 – Understand how to Contribute to the Measurement and Collection of Data for Achieving Excellence in Food Operations
- Unit 23: K/601/2933 – Contribute to the Application of Improvement Techniques for Achieving Excellence in Food Operations
- Unit 24: M/601/2934 – Understand how to Contribute to the Application of Improvement Techniques for Achieving Excellence in Food Operations
- Unit 25: T/601/2935 – Undertake Proactive Plant Maintenance in Food Operations
- Unit 26: A/601/2936 – Understand how to Undertake Proactive Plant Maintenance in Food Operations
- Unit 27: F/601/2937 – Contribute to the Development of Standard Operating Procedures (SOP) in Food Operations
- Unit 28: J/601/2938 – Understand how to Contribute to the Development of Standard Operating Procedures (SOP) in Food Operations
- Unit 29: F/601/2940 – Reduce and Manage Conflict in Achieving Excellence in Food Operations
- Unit 30: J/601/2941 – Understand how to Reduce and Manage Conflict in Achieving Excellence in Food Operations
- Unit 31: L/601/2942 – Contribute to Compliance for Achieving Excellence in Food Operations

- Unit 32: R/601/2943 – Understand how to Contribute to Compliance for Achieving Excellence in Food Operations
- Unit 33: Y/601/2944 – Contribute to Problem Diagnosis in Food Manufacture
- Unit 34: D/601/2945 – Understand how to Contribute to Problem Diagnosis in Food Manufacture
- Unit 35: H/601/2946 – Contribute to Problem Resolution in Food Manufacture
- Unit 36: K/601/2947 – Understand how to Contribute to Problem Resolution in Food Manufacture

Group C – Food Manufacturing Excellence Knowledge

Credit value required: maximum 7.

- Unit 37: A/601/2631 – Principles of HACCP-based Food Safety Systems
- Unit 38: L/601/2701 – Principles of Sustainability in Food Operations
- Unit 39: M/601/2951 – Principles of Workplace Organisation Techniques in Food Operations
- Unit 40: A/601/2953 – Principles of Improvement in Food Operations
- Unit 41: F/601/2954 – Principles of Continuous Improvement Techniques (Kaizen) in Food Operations
- Unit 42: J/601/2955 – Principles of Flow Process Analysis in Food Operations
- Unit 43: D/601/2959 – Principles of Measurement System Analysis (MSA) in Food Operations
- Unit 44: Y/601/2961 – Principles of Lead Time Analysis in Food Operations
- Unit 45: H/601/2963 – Principles of Basic Statistical Analysis in Food Operations
- Unit 46: K/601/2964 – Principles of Taguchi Linear Graphs in Food Operations
- Unit 47: T/601/2966 – Principles of Flexible Production and Manpower Systems in Food Operations
- Unit 48: F/601/2968 – Principles of Statistical Process Control Procedures (SPC) in Food Operations
- Unit 49: J/601/2969 – Principles of Design of Experiments (DOE) in Food Operations
- Unit 50: A/601/2970 – Principles of Quality Function Deployment (QFD) in Food Operations
- Unit 51: F/601/2971 – Principles of Response Surface Methodology in Food Operations
- Unit 52: L/601/2973 – Principles of value Stream Mapping (VSM) in Food Operations

- Unit 53: R/601/2974 – Principles of Visual Management Systems in Food Operations
- Unit 54: Y/601/2975 – Principles of Analysing and Selecting Areas for Achieving Excellence in Food Operations
- Unit 55: D/601/2976 – Principles of Failure Modes and Effects Analysis (FMEA) in Food Operations
- Unit 56: H/601/2977 – Principles of Six Sigma Process Mapping in Food Operations
- Unit 57: K/601/2978 – Principles of Six Sigma Methodology in Food Operations
- Unit 58: M/601/2979 – Principles of Six Sigma Metrics in Food Operations
- Unit 59: H/601/2980 – Principles of a Set-up Reduction Programme in Food Operations
- Unit 60: K/601/2981 – Principles of Mistake/Error Proofing (Poka Yoke) in Food Operations
- Unit 61: M/601/2982 – Principles of a Characteristic Selection Matrix in Food Operations
- Unit 62: A/601/2984 – Principles of Capability Studies in Food Operations
- Unit 63: F/601/2985 – Principles of Multi-Variance Charts in Food Operations
- Unit 64: J/601/2986 – Principles of Hypothesis Testing in Food Operations
- Unit 65: L/601/2987 – Principles of Evolutionary Operations (EVOP) in Food Operations
- Unit 66: Y/601/2989 – Principles of Central Limit Theorem and Confidence Intervals in Food Operations
- Unit 67: L/601/2990 – Principles of Single Minute Exchange of Dies (SMED) in Food Operations

How are the qualifications graded and assessed?

The overall grade for each qualification is a 'pass'. The learner must achieve all the required units within the specified 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 qualifications are designed to be assessed:

- in the workplace or
- as part of a training programme.

Assessment strategy

The assessment strategy for these qualifications has been included in *Annexe C*. It has 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 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 following examples:

- direct observation of the learner's performance by their assessor
- outcomes from oral or written questioning
- products of the learner's work
- personal statements and/or reflective accounts
- outcomes from simulation, where permitted by the assessment strategy
- professional discussion
- assignment, project/case studies
- authentic statements/witness testimony
- expert witness testimony
- reflective accounts
- evidence of Recognition of Prior Learning.

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 to deliver these qualifications?

Each qualification is designed to support learners working in the Food and Drink 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 learners certificate				
Unit reference number:				
This code is a unique reference number for the 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:
			The learner should use this box to indicate where the evidence can be obtained eg portfolio page number.	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: Work Effectively with Others in Food Operations

Unit reference number: H/601/2896

Level: 2

Credit value: 2

Guided learning hours: 15

Unit summary

This unit supports workforce development for those who work effectively with others 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 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, working effectively with others 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.

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 Work effectively in a team	1.1 work with others to meet the objectives of the team, own objectives and the organisation's objectives 1.2 make suggestions to improve work activities 1.3 use initiative to assist team members 1.4 respond to suggestions made by colleagues for the organisation 1.5 deal with differences of opinion in ways that do not cause offence 1.6 respect colleagues from different ethnic and religious backgrounds in terms of their opinions and beliefs			
2 Give and receive information to and from team colleagues	2.1 check the team have instructions for their work 2.2 demonstrate the team understand what is required of them to carry out work 2.3 actively seek information when necessary 2.4 advise others in the team using information that is up-to-date, relevant and accurate 2.5 provide information which will help team colleagues to achieve tasks			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Work with team colleagues to improve the way work is done	3.1 inform the relevant person when tasks cannot be completed 3.2 suggest ways to improve the way work is organised 3.3 make suggestions about how work can be better organised			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 2: Understand how to Work Effectively with Others in Food Operations

Unit reference number: K/601/2897

Level: 2

Credit value: 2

Guided learning hours: 18

Unit summary

This unit supports workforce development for those who understand how to work effectively with others, 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

Assessment requirements or guidance specified by a sector or regulatory body (if appropriate) This unit is designed to assess the knowledge and understanding of learners in the workplace context, when working effectively with others 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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 Know how to work effectively in a team	1.1 state the objectives of the team, own objectives and the organisation's objectives 1.2 describe the importance and key features of the organisation's procedures relating to <ul style="list-style-type: none"> - health and safety - food safety - environmental health 1.3 describe the organisation's grievance and disciplinary procedures 1.4 state the importance of developing and keeping good working relationships with colleagues in the team 1.5 describe how to deal with differences of opinion without causing offence 1.6 state the importance of showing respect for colleagues 1.7 demonstrate how to show respect to colleagues			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to give and receive information to and from team colleagues	2.1 describe their own work responsibilities and when to ask for help 2.2 state who should be asked for help 2.3 state the importance of asking for help when it is needed 2.4 state the importance of sharing opinions and information when working in a team 2.5 state the importance of offering useful advice to team colleagues			
3 Know how to work with team colleagues to improve the way work is done	3.1 list different types of information that is important to teamwork 3.2 state the importance of communicating information to the relevant person 3.3 state the importance of referring unresolved difficulties to the appropriate person when team working			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 3: Maintain Product Quality in Food Operations

Unit reference number: T/601/2899

Level: 2

Credit value: 2

Guided learning hours: 5

Unit summary

This unit supports workforce development for those who maintain product quality 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 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 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.

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 Conduct quality checks	1.1 carry out quality checks within limit of own authority 1.2 compare the results of quality checks to required standards 1.3 record the results of quality checks			
2 Communicate results of quality checks	2.1 record quality checks on correct documentation 2.2 communicate results of quality checks 2.3 check that all required records are accurate and complete			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 4: Understand how to Maintain Product Quality in Food Operations

Unit reference number:	H/601/2901
Level :	2
Credit value:	2
Guided learning hours:	11

Unit summary

This unit supports workforce development for those who understand how to maintain product quality, 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 maintaining product 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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 Know how to carry out quality checks	1.1 state the importance of carrying out quality checks 1.2 describe procedures to deal with non-conformance against the required standards 1.3 describe the limits of own authority when reporting quality checks			
2 Know how to record and store information accurately	2.1 state why records should be kept securely 2.2 state the importance of maintaining accurate records			
3 Know about the importance of communicating results	3.1 state the methods of communicating results of quality checks 3.2 describe the importance of working within own limits of responsibility			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 5: Maintain Workplace Food Safety Standards in Operations

Unit reference number: K/601/2902

Level: 2

Credit value: 2

Guided learning hours: 16

Unit summary

This unit supports workforce development for those who maintain workplace food safety standards 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 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 workplace food safety standards in 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.

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 Keep the workspace clean	1.1 keep work area clean and tidy 1.2 maintain tools, utensils and equipment in a hygienic condition 1.3 store tools, utensils and equipment correctly 1.4 keep ingredients and products in their assigned places			
2 Maintain food safety	2.1 prevent product contamination and cross contamination 2.2 follow procedures for dealing with product contamination and cross contamination 2.3 follow procedures for substances that may cause allergic reactions 2.4 dispose of food waste and scrap according to procedures			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 6: Understand how to Maintain Workplace Food Safety Standards in Operations

Unit reference number:	M/601/2903
Level:	2
Credit value:	2
Guided learning hours:	20

Unit summary

This unit supports workforce development for those who understand how to maintain workplace food safety, 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 maintaining workplace food safety in 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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	Know the importance of safe food handling practices	1.1 outline the importance of food handling practices in maintaining food safety 1.2 describe how personal hygiene and behaviour affect food safety 1.3 explain the importance of treating and covering cuts, boils, skin infections and grazes 1.4 describe how to treat and cover cuts, boils, skin infections and grazes 1.5 explain the importance of cleaning and maintenance of the environment and equipment, and their impact on food safety 1.6 describe the importance of keeping food at specified temperatures 1.7 outline the causes of food spoilage and how to recognise it 1.8 describe what action to take in order to reduce food spoilage			
2	Know how to deal with pests and infestations	2.1 describe the main type of pests and infestations and how they occur 2.2 describe how to prevent infestation 2.3 describe how to recognise infestations 2.4 outline the procedures to follow on discovering infestation			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know the importance of minimising the risks of contamination and food poisoning	3.1 describe the types of product contamination, cross contamination and food poisoning <ul style="list-style-type: none"> - bacteria - chemicals - physical objects - substances that cause allergic reactions 3.2 describe how to prevent contamination and cross contamination from occurring 3.3 explain how food poisoning enters food and factors that affect its growth 3.4 describe the symptoms of food poisoning 3.5 describe how to prevent food poisoning from occurring			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 7: Maintain Workplace Health and Safety in Food Operations

Unit reference number: M/601/2917

Level: 2

Credit value: 2

Guided learning hours: 4

Unit summary

This unit supports workforce development for those who operate safely 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 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 operating safely 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.

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 Work within organisational safety limits	1.1 follow operational requirements according to standard operating procedures (SOP) 1.2 maintain responsible behaviour at work in line with company policies 1.3 work without causing risks or danger to self and others 1.4 carry out instructions according to safety notices, hazard and warning signs 1.5 report hazards, defects and faults to the relevant people 1.6 keep the workplace and work surfaces clean and clear of hazards 1.7 follow organisational procedures for reporting sickness, disease and health risks			
2 Follow organisational emergency procedures	2.1 locate emergency escape routes and procedures 2.2 keep emergency escape routes clear of obstructions 2.3 use safety systems and alarms correctly 2.4 follow the specified procedures in an emergency			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Use personal protective equipment	3.1 identify and locate suitable personal protective equipment necessary for work activities 3.2 use and wear personal protective equipment in accordance with organisational procedures 3.3 dispose of personal protective equipment after use			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 8: Understand how to Maintain Workplace Health and Safety in Food Operations

Unit reference number:	T/601/2918
Level:	2
Credit value:	2
Guided learning hours:	18

Unit summary

This unit supports workforce development for those who understand workplace health and safety in food manufacture, 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 understanding workplace health and safety 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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 Know the main safety risks and hazards in the working environment	1.1 describe how to define and identify health and safety hazards and risks in the workplace 1.2 list the main health risks in the workplace and steps that can be taken to control them 1.3 describe the most common causes of accidents in the work place and steps that help to prevent them 1.4 state the importance of safety notices and hazard warning signs 1.5 list the hazards, defects and faults that may arise in the workplace 1.6 state how to avoid or minimise the effects in the workplace of health and safety - hazards - defects - faults 1.7 describe the range and care of personal protective equipment			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know the health and safety precautions and procedures in the workplace	2.1 list the safety precautions required in the workplace 2.2 describe safe working practices and the importance of following them 2.3 describe how to contact and obtain help from colleagues with first aid qualifications 2.4 outline the procedures that should be followed in different emergencies and why they should be followed 2.5 describe the importance of considering health and safety precautions when planning tasks 2.6 describe what might happen if tasks are planned without attention to health and safety precautions 2.7 state how to report accidents and incidents 2.8 describe the importance of reporting accidents and incidents following company procedures			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know the health and safety features of equipment and materials	3.1 list the rules and hazards associated with particular equipment 3.2 state the reasons for using specified tools and equipment 3.3 describe why tools and equipment should be maintained and stored correctly 3.4 describe how to isolate faulty and defective equipment 3.5 outline the importance of adjusting workplace equipment to suit the individual 3.6 list the hazardous substances that are in the workplace 3.7 describe steps that should be taken to protect individuals from hazardous substances in the workplace 3.8 describe storage methods for materials and chemicals			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 9: Contribute to Environmental Safety in Food Operations

Unit reference number: A/601/2919

Level: 2

Credit value: 2

Guided learning hours: 5

Unit summary

This unit supports workforce development for those who contribute to environmental safety in food manufacture, 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 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, contributing to environmental safety 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.

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 Contribute to workplace environmental safety	1.1 maintain environmentally safe working practices 1.2 take precautions to minimise environmental damage 1.3 identify any incidental damage and take prompt action to minimise it 1.4 report environmental incidents and actions taken in response of them to the relevant person 1.5 follow procedures to dispose of waste materials safely			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 10: Understand how to Contribute to Environmental Safety in Food Operations

Unit reference number:	M/601/2920
Level:	2
Credit value:	2
Guided learning hours:	11

Unit summary

This unit supports workforce development for those who need to understand how to contribute to environmental safety, 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 environmental safety. 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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	Know how to comply with requirements	1.1 describe the reporting procedures for environmental incidents 1.2 outline the organisational and legislative requirements relating to environmental damage			
2	Know how to recognise environmental damage	2.1 describe the different types of environmental damage 2.2 outline the types of damage that may occur 2.3 explain the impact that damage can have on the environment, and what corrective actions can be taken			
3	Know how to work in a way that reduces environmental damage	3.1 explain how to choose the most suitable materials and equipment, given the nature of the work activity, and its potential impact on the environment 3.2 describe the different methods that can be used to minimise environmental damage 3.3 describe how to dispose of waste in ways that minimise the risk to the environment			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 11: Contribute to the Maintenance of Plant and Equipment in Food Operations

Unit reference number:	T/601/2921
Level:	2
Credit value:	3
Guided learning hours:	30

Unit summary

This unit supports workforce development for those who contribute to the maintenance of plant and equipment 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 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, contributing to the maintenance of plant and equipment 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.

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 the maintenance of plant and equipment	1.1 access and interpret information and instructions 1.2 evaluate the impact of instructions on operations 1.3 ensure resources required are available and fit for use 1.4 prepare the work area in a manner which promotes effective and safe work practices 1.5 prioritise own work activities to achieve optimum productivity within the limits of own contribution 1.6 ensure that maintenance activities are correctly authorised 1.7 establish effective spoken and written communication with managers and colleagues 1.8 complete and process the necessary documentation			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Carry out maintenance of plant and equipment	2.1 monitor and adhere to food safety, health and safety environmental procedures 2.2 ensure that maintenance activities are undertaken using correct tools, materials, equipment and techniques 2.3 identify defects and discrepancies in components and take the necessary corrective action 2.4 minimise the wastage of consumable items and other materials and dispose of non-reusable materials correctly 2.5 evaluate maintenance activities for effectiveness 2.6 make recommendations to relevant people about identified improvements 2.7 ensure that work which cannot be completed within the agreed schedule is recorded and reported to the relevant people 2.8 maintain effective spoken and written communication with your managers and colleagues 2.9 complete and process documentation 2.10 leave plant and equipment safe, tidy and fit for future use			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 12: Understand how to Contribute to the Maintenance of Plant and Equipment in Food Operations

Unit reference number:	A/601/2922
Level:	2
Credit value:	3
Guided learning hours:	20

Unit summary

This unit supports workforce development for those who understand how to contribute to the maintenance of plant and equipment, 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 maintenance of plant and equipment 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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 Know about preparing for maintenance	1.1 outline the importance of working to the health and safety and food safety standards 1.2 describe the activities that can be carried out within own limits of authority 1.3 list the equipment required for maintenance 1.4 describe the importance of meeting maintenance documentation requirements 1.5 outline how to make the plant or equipment safe before maintenance 1.6 describe how to access types of information to aid maintenance			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to carry out maintenance	2.1 outline how and when to carry out maintenance activities 2.2 describe how the tools and equipment selected are used to complete the tasks 2.3 describe how to communicate events and issues to relevant people 2.4 state the procedure for carrying out the maintenance event hygienically 2.5 describe how available information is used to aid the maintenance 2.6 state how to record an event in the maintenance log			
3 Know how to deal with maintenance issues and problems	3.1 explain the importance of maintenance and implications for not carrying it out 3.2 explain why materials, tools and equipment must be fit for purpose, and how to deal with any defects 3.3 describe what to do if there are unexpected problems during maintenance 3.4 describe the effects different of types maintenance have on the operations 3.5 explain how planned maintenance can reduce downtime			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Know how to complete maintenance procedures	4.1 explain the importance of minimising waste 4.2 outline how to dispose of waste safely and effectively 4.3 explain the importance of leaving plant and equipment safe, clean and tidy for future use 4.4 explain how to check the effectiveness of maintenance activities			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Contribute to identifying criteria for product specifications	<p>1.1 take the opinions of relevant people into account when ascertaining the criteria required for the development of specifications</p> <p>1.2 assess the products and processes, relevant information and influencing factors to determine the validity of the identified criteria</p> <p>1.3 assess the validity of the proposed checking methods against the identified criteria</p>			
2	Contribute to the development of draft criteria	<p>2.1 assemble the criteria into a consistent order in a draft specification and submit it to the relevant people for comment</p> <p>2.2 monitor the criteria used in specifications to check that they continue to be relevant to customer, product and process requirements</p> <p>2.3 take action to deal with any discrepancies in line with the limits of own authority</p>			
3	Contribute to confirming a final specification	<p>3.1 agree which criteria will be incorporated into the final specification with relevant people</p> <p>3.2 submit the final specifications in a suitable manner and format for the approval of relevant people</p>			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 14: Understand how to Contribute to the Development of Product Specifications in Food Manufacture

Unit reference number: J/601/2924

Level: 2

Credit value: 2

Guided learning hours: 14

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 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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	Understand how to identify and develop criteria	1.1 describe what criteria are used to develop specifications 1.2 state what criteria is needed and how to develop them for inclusion in specifications 1.3 explain how to assemble and assess criteria for inclusion for specifications			
2	Understand the consultation process	2.1 explain how to consult with others and obtain their opinions 2.2 detail why it is important to consult others and state who to consult with about the development of specifications			
3	Understand how to develop the specification	3.1 describe the specification formats 3.2 describe the processes and procedures for specification development 3.3 describe how to draft and submit specifications for approval 3.4 state the relevant statutory regulations and operational requirements and how they affect specifications development			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 15: Contribute to Sustainable Practice in Food Operations

Unit reference number: L/601/2925

Level: 2

Credit value: 2

Guided learning hours: 3

Unit summary

This unit supports workforce development for those who contribute to sustainable practice in a food environment.

The unit is designed for use primarily by operatives 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, contribute to sustainable practice in a 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.

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 Contribute to sustainability in a food environment	1.1 work according to the organisation’s production specifications 1.2 assess own performance to identify possible efficiency improvements 1.3 report any opportunities to improve the efficiency of resource usage 1.4 report variations in resource usage and any actions taken in response 1.5 implement actions to improve the efficiency of resource usage 1.6 work to avoid and minimise waste			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____
(if sampled)

Date: _____

Unit 16: Understand how to Contribute to Sustainable Practice in Food Operations

Unit reference number:	R/601/2926
Level:	2
Credit value:	2
Guided learning hours:	14

Unit summary

This unit supports workforce development for those who contribute to sustainable practice in a food environment.

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, contributing to sustainable practice. 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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 Know what the requirements are for sustainable practice in a food environment	1.1 state what is meant by sustainable food manufacture 1.2 describe how efficient energy usage supports sustainable food manufacture 1.3 list the social benefits of sustainable food manufacturing 1.4 state why it is important to work to the organisation's production specifications 1.5 describe the impact on resource usage and sustainability of not working to the organisation's production specifications			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know how to contribute to sustainable practice within the organisation	2.1 state how the efficient use of resources supports the economic sustainability of the organisation 2.2 describe each of the following as a resource, and the opportunities available for reducing their usage: <ul style="list-style-type: none"> - water - energy - transport 2.3 describe how the following support sustainable food manufacture: <ul style="list-style-type: none"> - efficient use of water - minimising waste - efficient use of transport 2.4 describe own responsibilities relevant to sustainable food manufacture 2.5 state how to assess own performance for opportunities to improve efficiency 2.6 describe why it is important to report incidences of inefficient resource usage			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 17: Organise and Improve Work Activities for Achieving Excellence in Food Operations

Unit reference number:	Y/601/2927
Level:	2
Credit value:	3
Guided learning hours:	13

Unit summary

This unit supports workforce development for those who organise and improve work activities in a food business.

The unit is designed for use primarily by operatives or 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, organising and improving work activities for achieving excellence. 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.

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 your own work activities	1.1 check understanding of own work objectives 1.2 plan the actions needed in order to meet own work objectives 1.3 prioritise own work activities 1.4 check that the resources required are available and suitable for use taking action if there is a problem 1.5 organise own workplace to ensure efficient work activity			
2	Work effectively	2.1 work efficiently and safely according to standard operating procedures and visual controls 2.2 use shared resources efficiently and ensure that they are left in a fit state for others to use 2.3 identify where information, resources or equipment is missing or is in surplus, and where improvements to work activities can be made 2.4 work effectively to support the implementation of improvements 2.5 effectively maintain workplace organisation 2.6 maintain accurate, complete and up-to-date records			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Communicate with others	3.1 keep your colleagues up-to-date and accurately informed on progress of work 3.2 make suggestions on ways to improve own work activities 3.3 support the maintenance of accurate visual controls 3.4 inform the appropriate person as soon as possible about any difficulties which may prevent or delay from completing own work objectives			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 18: Understand how to Organise and Improve Work Activities for Achieving Excellence in Food Operations

Unit reference number: D/601/2928

Level: 2

Credit value: 3

Guided learning hours: 14

Unit summary

This unit supports workforce development for those who need to understand how to apply workplace organisation techniques for achieving excellence, 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 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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 Know about organising own work activities in food operations	1.1 state own work objectives and how they fit with team objectives 1.2 describe why it is important to have a clear plan of what to do before starting work 1.3 outline how to read and interpret work instructions and standard operating procedures 1.4 describe how to plan, organise and prioritise own work activities			
2 Know how to use organisational techniques in food operations	2.1 describe how to organise the workplace according to recognised techniques 2.2 state where useful information is stored in the workplace 2.3 outline why it is important to work efficiently and safely according to standard operating procedures 2.4 describe how to use visual controls			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to check the progress and identify opportunities for improvement in food operations	3.1 state how to check the progress of the application of organisation techniques 3.2 outline how opportunities for improvement can be identified 3.3 describe how improvements can impact on workplace performance 3.4 describe how to communicate effectively with others 3.5 outline why it is important to keep accurate, complete and up-to-date records			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Identify improvements in the workplace	1.1 identify and make positive suggestions about areas for improvement 1.2 gather accurate information about potential improvements 1.3 check that suggestions for improvement can be justified and are realistic			
2 Share and communicate own ideas for improvement	2.1 share ideas for improvement with relevant people and react positively to feedback received 2.2 communicate finalised ideas in sufficient detail to enable further action to be agreed			
3 Agree, test and evaluate plan for improvements	3.1 work with others to agree an effective action plan for putting improvement ideas into action 3.2 make a positive contribution to putting the plan into action 3.3 test and accurately check improvements to find out how effective they are before recommending further action 3.4 evaluate the effectiveness of improvements that have been introduced			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 20: Understand how to Contribute to Continuous Improvement for Achieving Excellence in Food Operations

Unit reference number: Y/601/2930

Level: 2

Credit value: 2

Guided learning hours: 12

Unit summary

This unit supports workforce development for those who need to understand how to contribute to continuous improvement for achieving excellence, 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 continuous improvement 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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 Know about the importance of continuous improvement in food operations	1.1 state which work area/food operations activity is to be considered for continuous improvement practice 1.2 outline the health, safety and hygiene requirements of the area in which the continuous improvement activity is to be carried out 1.3 state why continuous improvement is necessary and what the potential benefits are 1.4 describe the food operations activity considered for review 1.5 outline the importance of planning improvements			
2 Know about the resources and measures to support a continuous improvement activity in food operations	2.1 state the required production/activity rate for the operations activity 2.2 outline the resources required by the operations activity 2.3 outline the potential sources of waste associated with the operations activity 2.4 state the measures available to control waste 2.5 state the improvement targets and objectives set for the work operation 2.6 state the role of standard operating procedures in contributing to continuous improvement			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to support and communicate continuous improvement activity in food operations	3.1 outline how own knowledge and experience can add value to the improvement process 3.2 describe how to support the identification of potential improvements 3.3 describe how to identify problems and opportunities for solving them 3.4 describe how to contribute to discussions and respond to possible disagreements in a positive and constructive manner 3.5 state the extent of own authority, and the person to report to in the event of problems that cannot be resolved 3.6 state how improvements are communicated in own work area 3.7 outline how to provide information to support the evaluation of improvement activities			

Learner name: _____

Date: _____

Learner signature: _____

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Assessor signature: _____

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Internal verifier signature: _____

Date: _____

(if sampled)

Unit 21: Contribute to the Measurement and Collection of Data for Achieving Excellence in Food Operations

Unit reference number: D/601/2931

Level: 2

Credit value: 3

Guided learning hours: 14

Unit summary

This unit supports workforce development for those who contribute to the measurement and collection of data in a food business.

The unit is designed for use primarily by operatives or 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, contributing to measuring and collecting data for achieving excellence. 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.

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 Contribute to planning for the measurement and recording of improvements	1.1 contribute to selecting an improvement activity to be measured as required by the achieving excellence strategy 1.2 confirm the measurement objectives and plan with colleagues 1.3 contribute to the presentation of own plans for measurement of improvement activities clearly and accurately 1.4 confirm the resources necessary for the measurement activity			
2 Contribute to measurement and recording of improvements	2.1 detail activities of the improvement plan 2.2 gather reliable, relevant and valid evidence to further your understanding of the improvement activity 2.3 carry out measurements utilising knowledge of operations monitoring, trends and developments 2.4 complete the activities which are necessary to obtain measurements and maintain effective communication with those involved 2.5 accurately record and log your measurements			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Contribute to collection and reporting of improvement data	3.1 collect and update data from the relevant sources 3.2 remove out of date or irrelevant data promptly 3.3 collate data in a format which supports the achieving excellence requirements 3.4 assist in the reporting and presentation of own data to your colleagues 3.5 report in a way which is aligned to the achievement of the organisation's vision, aims and objectives for achieving excellence			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 22: Understand how to Contribute to the Measurement and Collection of Data for Achieving Excellence in Food Operations

Unit reference number: H/601/2932

Level: 2

Credit value: 2

Guided learning hours: 12

Unit summary

This unit supports workforce development for those who need to understand how to contribute to the measurement and collection of data for achieving excellence, 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 measurement and collection of data 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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	Know about the organisational vision and objectives for improvement in food operations	1.1 outline the organisation's achieving excellence vision and key objectives 1.2 state why improvement is important to the organisation 1.3 outline the organisational improvement activities and their implementation plans 1.4 describe why it is important to review improvement activities			
2	Know how to use data for improvement in food operations	2.1 describe why measurements and data are needed and how they are used 2.2 state where to find existing data and who is responsible for this 2.3 outline the importance of collecting and recording data accurately 2.4 describe how to carry out measurements and recording data 2.5 outline how to gather reliable, relevant and valid evidence to inform measurements and data			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to communicate and record data for improvement in food operations	3.1 state how to record and log measurements using paper and electronic systems 3.2 outline how to use own organisation's data recording systems 3.3 describe how to assist a responsible person in the reporting/presenting of data 3.4 outline how to communicate measurements and data in way which assists understanding 3.5 state the limits of own authority, and reporting arrangements in the event of problems with measurements and data that you cannot resolve			

Learner name: _____

Date: _____

Learner signature: _____

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Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 23: Contribute to the Application of Improvement Techniques for Achieving Excellence in Food Operations

Unit reference number: K/601/2933

Level: 2

Credit value: 3

Guided learning hours: 12

Unit summary

This unit supports workforce development for those who contribute to the application of improvement techniques in a food business.

The unit is designed for use primarily by operatives or 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, contributing to applying improvement techniques for achieving excellence. 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.

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 opportunities for the application of improvement techniques	1.1 identify opportunities and make positive suggestions about improvement techniques 1.2 gather initial information to inform potential application improvements 1.3 assess information and check that own suggestions can be justified and are realistic 1.4 secure approval for own contribution to application			
2	Apply improvement techniques	2.1 use improvement techniques within own work area 2.2 obtain all the information, documentation and resources required to use improvement techniques 2.3 identify any targets or key performance indicators which relate to the use of the improvement techniques 2.4 ensure that the use of improvement techniques are complementary to the requirements of the food safety management system 2.5 identify any deficiencies in documentation or resources required 2.6 make valid recommendations for changes to policy or procedures to support the application of improvement techniques 2.7 refer any issues outside the limit of own authority to a responsible person			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Obtain and provide feedback on application of improvement techniques	3.1 seek feedback on the value of own contribution to the application 3.2 check progress towards the achievement of targets or performance indicators 3.3 provide feedback on own contribution to application to the relevant person			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____
(if sampled)

Date: _____

Unit 24: Understand how to Contribute to the Application of Improvement Techniques for Achieving Excellence in Food Operations

Unit reference number: M/601/2934

Level: 2

Credit value: 3

Guided learning hours: 18

Unit summary

This unit supports workforce development for those who need to understand how to contribute to the application of improvement techniques for achieving excellence, 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 application of improvement 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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	Know about the objectives and benefits of improvement techniques in food operations	<p>1.1 outline the health, safety and food hygiene requirements of the area in which improvement techniques are being applied</p> <p>1.2 state the purpose and objectives of the improvement techniques being applied</p> <p>1.3 describe how improvement techniques can produce performance benefits and support or sustain food safety standards</p> <p>1.4 state the company policy or protocol for applying improvement techniques</p>			
2	Know how to use information and communication for improvement techniques in food operations	<p>2.1 outline what documentation is required to inform improvement techniques</p> <p>2.2 outline the scope of information and data required to apply improvement techniques</p> <p>2.3 describe the relationship between improvement techniques and standard operating procedures, quality and continuous improvement</p> <p>2.4 state how improvement techniques and their application are communicated in own workplace</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know how to make recommendations and feedback improvement issues in food operations	3.1 state what the best method is for making recommendations 3.2 outline how to present recommendations to colleagues 3.3 state how best to give and receive feedback regarding own contribution to application of improvement techniques 3.4 describe the limits of own authority, and reporting arrangements in the event of problems that cannot be resolved			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 25: Undertake Proactive Plant Maintenance in Food Operations

Unit reference number: T/601/2935

Level: 2

Credit value: 3

Guided learning hours: 14

Unit summary

This unit supports workforce development for those who undertake proactive plant maintenance in a food business.

The unit is designed for use primarily by operatives or 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, undertaking proactive plant maintenance. 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.

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 opportunities for proactive maintenance	1.1 identify and make positive suggestions about proactive maintenance needs 1.2 gather accurate information and data 1.3 assess plant condition and check that your suggestions can be justified and are realistic 1.4 secure approval for proactive maintenance activity			
2	Undertake proactive maintenance	2.1 use information and data effectively 2.2 carry out proactive maintenance using planned techniques 2.3 use relevant measures of plant effectiveness and other reliable information sources to inform improvement			
3	Implement improvements to practice by proactive maintenance	3.1 work with others to agree an effective action plan for improving plant effectiveness 3.2 make a positive contribution to putting the plan into action 3.3 ensure that action plan is completed and signed off			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 26: Understand how to Undertake Proactive Plant Maintenance in Food Operations

Unit reference number: A/601/2936

Level: 2

Credit value: 3

Guided learning hours: 17

Unit summary

This unit supports workforce development for those who need to understand how to undertake proactive plant maintenance 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 undertaking proactive plant maintenance 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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 Know about the purpose and objectives of proactive maintenance	1.1 outline how proactive maintenance forms part of organisational total productive maintenance systems 1.2 state the performance benefits and how proactive maintenance can support food safety standards 1.3 describe the importance of organisational procedures for undertaking proactive maintenance 1.4 outline the roles: <ul style="list-style-type: none"> - standard operating procedures - food safety management procedures - and other food operational procedures - play in proactive maintenance activities 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Know about the important role information and data play in proactive maintenance	2.1 describe why it is necessary to calculate and interpret plant effectiveness measures 2.2 outline how proactive maintenance interacts with plant effectiveness measures and workplace organisation activities 2.3 describe the six losses and how they contribute to proactive maintenance 2.4 identify the value of chronic and sporadic loss 2.5 describe the difference between chronic and sporadic losses to food operations 2.6 outline the reporting arrangements for problems that cannot be resolved			
3 Know how to identify and communicate improvements	3.1 state how to choose plant items to undertake proactive maintenance activities 3.2 describe how process improvement techniques and activities contribute to proactive maintenance 3.3 outline how opportunities for improvement are typically identified 3.4 state how own knowledge and experience can add value to workplace improvement 3.5 outline how to communicate proactive maintenance activities and improvements in own work area			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Learning outcomes and assessment criteria

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
1	Identify opportunities for SOP development	1.1 identify opportunities and make positive suggestions about sop development 1.2 gather initial information to inform potential development 1.3 assess information and check that your suggestions can be justified and are realistic 1.4 secure approval for contribution to SOP development			
2	Make recommendations for SOP development	2.1 collate information and data on current or similar operations 2.2 source and identify the requirements of the food safety management system 2.3 identify documentation, utilities, tools, equipment and resources required for the operation 2.4 use relevant measures of plant effectiveness and improvement to inform development 2.5 make valid recommendations for SOP development 2.6 refer any issues outside the limit of your authority to a responsible person 2.7 check and confirm that your recommendations meet all workplace requirements			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Obtain and provide feedback on SOP development	3.1 seek feedback on the value of your contribution to development 3.2 check the content of the new or updated SOP against the information provided in feedback 3.3 provide feedback on your contribution to development to the relevant person			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 28: Understand how to Contribute to the Development of Standard Operating Procedures (SOP) in Food Operations

Unit reference number: J/601/2938

Level: 2

Credit value: 2

Guided learning hours: 9

Unit summary

This unit supports workforce development for those who need to understand how to contribute to the development of standard operating procedures 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 standard operating procedures 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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 Know about the purpose and objectives of SOP	1.1 state company policy or protocol for SOP development 1.2 describe how own company structures and presents SOP 1.3 identify the required documentation to inform SOP 1.4 outline the relationship between SOP, quality and continuous improvement 1.5 state how SOP can produce performance benefits and support and/or sustain food safety standards			
2 Know about the process of developing SOPs and how to communicate	2.1 identify the type of information and data required to develop SOP 2.2 state where to find SOP relating to your role 2.3 describe the importance of the eight wastes in food processes 2.4 state how to reduce or eliminate the eight wastes explaining their value in informing SOP development 2.5 outline how SOP developments are communicated 2.6 state how to present recommendations for SOP development			

Learner name: _____

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Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 29: Reduce and Manage Conflict in Achieving Excellence in Food Operations

Unit reference number: F/601/2940

Level: 2

Credit value: 3

Guided learning hours: 11

Unit summary

This unit supports workforce development for those who reduce and manage conflict in a food business.

The unit is designed for use primarily by operatives or 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, reducing and managing conflict. 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.

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 Take pre-emptive action to avoid conflict	1.1 communicate clearly the standards of work and behaviour expected of team members and individuals 1.2 assist team members and individuals understand how different members interface and support each other 1.3 identify and address any issues with organisational systems or procedures that are likely to give rise to conflict 1.4 identify potential conflict between team members or with individuals and take pre-emptive action to avoid these 1.5 encourage team members to resolve their own problems and conflicts themselves			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Deal with conflict	2.1 take prompt action to deal with conflicts where team members or individuals are unable to resolve the conflicts themselves 2.2 show respect for members and individuals emotions in conflict and seek to manage negative emotions 2.3 investigate the causes of conflict, providing opportunities to present facts and perceptions about conflict 2.4 identify and agree how to resolve conflicts without apportioning blame 2.5 reinforce the goals, attitudes and behaviours expected of team members and individuals			
3 Obtain support and complete conflict records	3.1 seek help from colleagues or specialists where appropriate 3.2 comply with regulatory and organisational requirements when resolving conflicts 3.3 maintain complete and confidential records of conflicts and their outcomes			

Learner name: _____

Date: _____

Learner signature: _____

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Assessor signature: _____

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Internal verifier signature: _____
(if sampled)

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Unit 30: Understand how to Reduce and Manage Conflict in Achieving Excellence in Food Operations

Unit reference number: J/601/2941

Level: 2

Credit value: 3

Guided learning hours: 15

Unit summary

This unit supports workforce development for those who need to understand how to reduce and manage conflict in achieving excellence 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 reducing and managing conflict in 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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 Know how to communicate effectively	1.1 state the principles of effective communication 1.2 state how to apply effective communication 1.3 outline how to assist team members and individuals understand roles and support each another			
2 Know about company systems for dealing with conflict	2.1 state how to identify the causes of conflict 2.2 state the importance of identifying and agreeing with team members and individuals how to resolve conflicts 2.3 outline your company's policy and procedures for resolving conflicts 2.4 describe how to complete accurate records of conflicts 2.5 state the importance of maintaining confidential records of conflicts 2.6 outline when it is appropriate to seek help from colleagues or specialists 2.7 state how to identify and address systems and procedures that contribute to conflict			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know about different ways of managing conflict	3.1 state the importance of identifying potential conflict situations and taking pre-emptive action to avoid these 3.2 state how to encourage team members and individuals to talk about work issues and potential conflict 3.3 describe the importance of giving team members and individuals opportunities to discuss problems affecting work 3.4 state the importance of taking prompt action to deal with conflicts as they arise 3.5 outline methods of dealing with conflicts 3.6 state the importance of acknowledging and showing respect for team members and individuals during conflict 3.7 state how to manage negative emotions of team members and individuals involved in conflict			

Learner name: _____

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Assessor signature: _____

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Date: _____

(if sampled)

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Comply with regulations in own work area	1.1 identify the regulations which apply to own work area 1.2 access information about the regulations 1.3 use personal and protective clothing and equipment 1.4 follow all organisational procedures which apply to own work area 1.5 identify control hazards in the workplace 1.6 report potential risks and hazards to the responsible person 1.7 identify the learning needs of individuals that need support to meet compliance standards			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Make recommendations for improving compliance	2.1 identify opportunities for improving compliance to meet organisational needs 2.2 source and identify the requirements of food safety management systems 2.3 collate information, data and resources to support potential improvements 2.4 make recommendations to management for improving compliance using measures of plant effectiveness and improvement 2.5 refer issues outside the limit of own authority to a responsible person 2.6 check and confirm that recommendations meet all workplace requirements			
3 Obtain and provide feedback on compliance	3.1 seek feedback on the value of own contribution to compliance 3.2 check current compliance levels and targets 3.3 provide feedback on own contribution to compliance to the relevant person			

Learner name: _____

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Learner signature: _____

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Assessor signature: _____

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Date: _____

(if sampled)

Unit 32: Understand how to Contribute to Compliance for Achieving Excellence in Food Operations

Unit reference number: R/601/2943

Level: 2

Credit value: 2

Guided learning hours: 11

Unit summary

This unit supports workforce development for those who need to understand how to contribute to compliance for achieving excellence culture 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 compliance for achieving excellence culture 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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 Know about regulations	1.1 state own responsibilities and others responsibilities under: <ul style="list-style-type: none"> - health and safety at work regulation and associated regulation - food safety regulation and associated regulation 1.2 state how to locate regulatory information and workplace procedures			
2 Know about organisational procedures for ensuring compliance in own work area	2.1 detail the specific organisational procedures required within own work area: <ul style="list-style-type: none"> - health and safety - food safety 2.2 outline the process or product specific procedures that are customer focussed compliance requirements to meet internal or external standards 2.3 detail own company procedures for: <ul style="list-style-type: none"> - first aid - emergency fire and evacuation - safe lifting and handling 2.4 describe the best methods of formulating recommendations and how to present these to colleagues			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Know about workplace hazards	3.1 describe how to identify a: <ul style="list-style-type: none"> - workplace hazard - dangerous occurrence - hazardous malfunction 3.2 detail own responsibilities to deal with hazards and reduce risk in the workplace 3.3 detail procedures for identifying and controlling risk by: <ul style="list-style-type: none"> - monitoring - inspection - assessment - reporting 			

Learner name: _____

Date: _____

Learner signature: _____

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Assessor signature: _____

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(if sampled)

Unit 33: Contribute to Problem Diagnosis in Food Manufacture

Unit reference number: Y/601/2944

Level: 2

Credit value: 2

Guided learning hours: 10

Unit summary

This unit supports workforce development for those who contribute to problem diagnosis 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 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, contributing to problem diagnosis 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.

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 Contribute to identifying problems	1.1 identify variations to normal operating conditions 1.2 contribute to the assessment of the impact of these problems 1.3 take the appropriate action to make sure you and your colleagues remain safe			
2 Contribute to problem diagnosis	2.1 contribute to determining the nature, cause and the effect of the problems 2.2 contribute to investigating the problems in a safe and cost-effective manner, with minimum delay or wastage			
3 Contribute to reporting problems	3.1 communicate problems to the appropriate person 3.2 complete and process all records of problems			

Learner name: _____

Date: _____

Learner signature: _____

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Assessor signature: _____

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Internal verifier signature: _____

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(if sampled)

Unit 34: Understand how to Contribute to Problem Diagnosis in Food Manufacture

Unit reference number: D/601/2945

Level: 2

Credit value: 2

Guided learning hours: 15

Unit summary

This unit supports workforce development for those who need to understand how to contribute to problem diagnosis 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 problem diagnosis 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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	Know how to contribute to identifying problems in your area of work	1.1 outline the importance of contributing to problem solving is important 1.2 detail how to recognise differences from specification 1.3 outline the relevant operating procedures 1.4 detail operating problems and their possible effect on other operations 1.5 state how to help investigate problems in a safe and cost-effective manner and why it is important to do so 1.6 state how to assist the team or individual define and verify the root cause of a problem			
2	Know how to contribute to analysing and reporting problems within your work area	2.1 state how to use any relevant tools and test equipment 2.2 detail different methods can be used to gather evidence about problems 2.3 outline how to help analyse problems to determine their nature, cause and effects 2.4 detail lines and methods of effective communication and why it is important to use them 2.5 state documentation requirements and why it is important to meet them			

Learner name: _____

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(if sampled)

Learning outcomes and assessment criteria

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
1 Contribute to identifying the causes of problems	1.1 check and follow legal or regulatory requirements, hygiene, health and safety and environmental standards 1.2 check the available information and clarify or seek further information			
2 Contribute to implementing solutions to problems	2.1 contribute to selecting solutions which are effective in relation to operational requirements 2.2 help to ensure that the corrective actions determined meet with organisational requirements 2.3 contribute to putting into action the 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 appropriate person			
3 Contribute to reporting on action to be taken to resolve problems	3.1 contribute to the identification of needs for further work and report this to the relevant person in sufficient detail for action to be taken 3.2 make suggestions for avoiding the problem happening again and ways to improve operations to managers and colleagues 3.3 complete all records accurately and clearly, and process it promptly			

Learner name: _____

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Learner signature: _____

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Date: _____

(if sampled)

Unit 36: Understand how to Contribute to Problem Resolution in Food Manufacture

Unit reference number: K/601/2947

Level: 2

Credit value: 2

Guided learning hours: 18

Unit summary

This unit supports workforce development for those who need to understand how to contribute to problem resolution 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 problem resolution 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.

It is recommended that this unit is taken with the relevant Occupational Skills Unit.

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	Know how to contribute to problems in your area of work and how to communicate to colleagues	1.1 state operating problems and their possible effect on other operations 1.2 detail the operating procedures 1.3 state why it is important to record and communicate problems 1.4 detail the lines and methods of effective communication and why it is important to use them			
2	Know how to contribute to identifying resolutions to problems	2.1 outline factors to take into consideration when contributing to selecting solutions 2.2 state how to help: <ul style="list-style-type: none"> - recognise both temporary and permanent solutions, deciding which should be used - assess the impact of solutions on other operations - analyse problems in a systematic way - overcome problems and restore operations in an effective way 2.3 state how to monitor product integrity when overcoming problems and how they have been overcome 2.4 state how to evaluate the effectiveness of the solutions implemented			

Learner name: _____

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Unit 37: Principles of HACCP-based Food Safety Systems

Unit reference number: A/601/2631

Level: 2

Credit value: 1

Guided learning hours: 8

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of HACCP based food safety management systems, in food operations or animal feed production.

The unit is designed for use primarily by food processing 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

This unit is designed to assess the underpinning knowledge and understanding of learners on or off-the-job, in the workplace context, for understanding the principles of HACCP food safety management systems. 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.

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	Know the purpose of an HACCP system	1.1 state the need for HACCP systems 1.2 outline the requirements of an HACCP system			
2	Know the features and terminology of HACCP	2.1 describe the features of a HACCP system 2.2 outline the meaning of terms used in the HACCP system			
3	Know how an HACCP system is applied in the workplace	3.1 outline how an HACCP plan is developed 3.2 describe an operative's responsibility within the HACCP system. 3.3 state the importance of documenting, verifying and reviewing the HACCP system			

Learner name: _____

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Unit 38: 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.

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 Understand the principles of sustainability	1.1 outline the key principles of environmental sustainability in a food environment in relation to: <ul style="list-style-type: none"> - energy - waste - water usage - transportation 1.2 describe the relationship between sustainability and the three key elements of corporate social responsibility: <ul style="list-style-type: none"> - 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	<p>2.1 outline how to establish targets for sustainable development, including the use of benchmarking</p> <p>2.2 explain how carbon currency data (carbon footprints) is used as an indicator of sustainability</p> <p>2.3 explain the importance of liaising with national policy-makers to determine the influence of government targets and legal requirements on organisational sustainability</p>			
3	Understand factors affecting support for sustainability targets	<p>3.1 explain how continuous improvement supports sustainability</p> <p>3.2 explain how to gain the commitment of stakeholders to the development of sustainable food production</p> <p>3.3 outline how environmental management systems (EMS) are used to support sustainability in a food environment</p>			

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: _____

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(if sampled)

Unit 39: Principles of Workplace Organisation Techniques in Food Operations

Unit reference number: M/601/2951

Level: 2

Credit value: 2

Guided learning hours: 12

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of workplace organisation techniques in food operations 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

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of workplace organisation techniques 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.

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
<p>1 Understand the workplace arrangements and factors which influence improvement</p>	<p>1.1 outline the common techniques used to organise work and work areas including:</p> <ul style="list-style-type: none"> - 5S - 5C <p>1.2 state the processes used to monitor performance and identify opportunities for improvement</p> <p>1.3 describe how the properties of a food product and processing needs can influence improvement opportunities</p>			
<p>2 Understand the workplace procedures and processes</p>	<p>2.1 outline the process of labelling for rapid identification, and how to access the related resources or equipment</p> <p>2.2 define the purpose of standard operating procedures (SOP) and other approved documentation</p> <p>2.3 describe the process used to evaluate and prioritise improvements for the workplace</p> <p>2.4 describe process used to score and audit workplace organisation</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the impact of visual controls and authority in the workplace	3.1 assess the role of visual controls in workplace organisation 3.2 describe the techniques required to communicate information using visual controls including: <ul style="list-style-type: none"> - shadow boards - colour coding - line status systems - process control boards - performance charts 3.3 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution			

Learner name: _____

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Unit 40: Principles of Improvement in Food Operations

Unit reference number: A/601/2953

Level: 3

Credit value: 3

Guided learning hours: 16

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of improvement in food operations 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

This unit is designed to assess the underpinning knowledge and understanding of learners in the workplace context, for understanding the principles of improvement 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.

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 Understand improvement, its role and the opportunities for improvement	1.1 outline the principles of improvement as they apply in food and drink manufacture or supply 1.2 detail the importance of process improvement to food and drink manufactures and suppliers 1.3 summarise the role of improvement techniques and their application in support of improvement including: <ul style="list-style-type: none"> - cellular manufacturing - total productive maintenance - structured problem solving - visual management - specialist techniques 1.4 detail the opportunities in the work area where improvements can be made			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Understand how waste control can impact on improvement	2.1 state why inventory control is important to waste reduction in the food industry 2.2 detail how and why food/drink processing can create waste at stages, including: <ul style="list-style-type: none"> - over production - over processing - transport and distribution 2.3 state the impact of waiting time on food waste 2.4 summarise how levels of operator skills and knowledge can impact on waste 2.5 describe how out of specification raw materials and products cause waste 2.6 outline how the effective utilisation of a workforce can reduce waste			
3 Understand the impact of visual controls, the Deming Cycle and procedures	3.1 summarise the methods used to visually communicate improvement information 3.2 describe the importance of understanding the activity under review, and how this will affect the quality of the problem solving process 3.3 state the role of the deming cycle (plan, do, check, act) in improvement activities 3.4 outline the purpose of standard operating procedures and specifications			

Learner name: _____

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Assessor signature: _____

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Internal verifier signature: _____

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(if sampled)

Unit 41: 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.

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 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 your knowledge of food processing activities can support your problem solving ability			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
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 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 <ul style="list-style-type: none"> - line balance - process displays 			

Learner name: _____

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Learner signature: _____

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Assessor signature: _____

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Unit 42: Principles of Flow Process Analysis in Food Operations

Unit reference number: J/601/2955

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 flow process analysis in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 flow process analysis 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.

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
<p>1 Understand a processing operation considered for flow process analysis</p>	<p>1.1 explain how the health, safety and hygiene requirements of a work area can influence the process of analysis</p> <p>1.2 describe a processing operation that is considered for flow process analysis</p> <p>1.3 summarise how a processing operation in all its elements and activities of work is described</p> <p>1.4 explain how waste is handled and controlled within a processing operation</p>			
<p>2 Understand flow process analysis mapping and value added features of process operations</p>	<p>2.1 clarify the symbols and abbreviations used for flow process analysis</p> <p>2.2 explain how a process or deployment flowchart is mapped using the recognised symbols</p> <p>2.3 evaluate what are classed as value added and non-value added activities within a process</p> <p>2.4 justify the elements and activities in the process that are value added or non-value added</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand how to analyse and set action plans for improvement opportunities	3.1 analyse the potential opportunities for improvements within a processing operation 3.2 explain how data can be used to eliminate activities that do not add value to the process 3.3 explain how action planning is used to simplify the value added activities and eliminate the non-value added activities 3.4 summarise how action plans are constructed, including the payback matrix 3.5 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution			

Learner name: _____

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Assessor signature: _____

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Internal verifier signature: _____

Date: _____

(if sampled)

Unit 43: Principles of Measurement System Analysis (MSA) in Food Operations

Unit reference number: D/601/2959

Level: 3

Credit value: 3

Guided learning hours: 16

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of Measurement System Analysis (MSA) in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 Measurement System Analysis (MSA) 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.

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	Understand a processing operation considered for analysis	1.1 explain how the health, safety and hygiene requirements of a work area can influence the process of analysis 1.2 describe the processing operation that is being analysed 1.3 summarise why it is important to study measurement systems, to achieving an excellence strategy			
2	Understand the selection and use of measurement systems	2.1 explain how measurement systems are selected for analysis 2.2 diagnose possible sources of measurement systems variation 2.3 explain how measurement systems analysis is used in food operations 2.4 summarise how measurement systems analysis can be used in a six sigma improvement project			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the technical application of measurement system analysis	3.1 explain how a variable, attribute repeatability and reproducibility study is conducted 3.2 summarise terminology used in measurement system analysis 3.3 explain how measurement systems analysis studies are conducted 3.4 clarify how gauge repeatability and reproducibility is calculated 3.5 clarify how gauge precision and tolerance is calculated 3.6 summarise the industry rules for repeatability and reproducibility results 3.7 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution			

Learner name: _____

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Assessor signature: _____

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(if sampled)

Unit 44: Principles of Lead Time Analysis in Food Operations

Unit reference number: Y/601/2961

Level: 3

Credit value: 3

Guided learning hours: 16

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of lead time analysis in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 lead time analysis 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.

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 Understand a processing operation and information considered for analysis	1.1 explain how the health, safety and hygiene requirements of a work area can influence the process of analysis 1.2 describe the processing operation that is being analysed 1.3 summarise the information required to create lead time profiles to support the achieving excellence strategy 1.4 summarise the information required to construct the lead time profiles, and where this information can be obtained			
2 Understand the creation of lead time profiles and the link with problem solving	2.1 explain the co-ordination and creation of lead time profiles 2.2 explain the co-ordination and creation of frequency charts 2.3 summarise the techniques used to communicate the information and results obtained by this process 2.4 evaluate the difference between lead time and cycle time 2.5 clarify how root cause analysis can support problem solving 2.6 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution			

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Unit 45: Principles of Basic Statistical Analysis in Food Operations

Unit reference number: H/601/2963

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 basic statistical analysis in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 basic statistical analysis 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.

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	Understand a processing operation and basic statistical techniques	1.1 explain how the health, safety and hygiene requirements of a work area can influence the process of analysis 1.2 describe the processing operation that is being analysed 1.3 explain how to use basic statistical techniques 1.4 justify why we need to use basic statistics 1.5 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution			
2	Understand statistical terminology, curves and diagrams	2.1 explain the meaning of 'variation', and how this can be detected with statistics 2.2 clarify how variation can affect a process 2.3 summarise why data points are important to statistics 2.4 explain the meaning of the terms 'population' and 'sample' when applied to basic statistics 2.5 describe what distribution curves will demonstrate and the properties of a normal curve 2.6 explain the creation and use of charts and diagrams in statistics			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand statistical calculation	3.1 explain how to calculate mean, median, mode, standard deviation, range and variance 3.2 explain the difference between descriptive and inferential statistics			

Learner name: _____

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Unit 46: Principles of Taguchi Linear Graphs in Food Operations

Unit reference number: K/601/2964

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 Taguchi Linear graphs in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 Taguchi Linear graphs 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.

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	Understand a processing operation considered for analysis	1.1 explain how the health, safety and hygiene requirements of a work area can influence the process of analysis 1.2 describe the processing operation that is being analysed 1.3 justify the creation of action plans to ensure that improvements are implemented 1.4 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution			
2	Understand Taguchi Linear terminology, graphs and sample sizes	2.1 explain how measurement systems are selected for analysis 2.2 clarify what is meant by the following terms: fold over, confounded, alias 2.3 explain how to produce Taguchi linear graph designs for a range of arrays 2.4 explain terminology including; <ul style="list-style-type: none"> - alpha risk - beta risk - population - sample 2.5 explain how suitable sample sizes are calculated			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the application of Taguchi Linear graphs	3.1 explain why we need to use Taguchi linear graph experimental design 3.2 summarise how Taguchi linear graph experimental design is used in a six sigma improvement projects 3.3 explain how Taguchi linear graph experiments are conducted 3.4 explain how to calculate mean, median, mode, standard deviation, range and variance 3.5 describe the calculation and graphical display of main effects and interactions 3.6 explain how suitable optimal conditions can be identified 3.7 describe how Taguchi linear graph reports are created, and the information they should contain			

Learner name: _____

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Assessor signature: _____

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(if sampled)

Unit 47: Principles of Flexible Production and Manpower Systems in Food Operations

Unit reference number: T/601/2966

Level: 3

Credit value: 4

Guided learning hours: 25

Unit summary

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

The unit is designed for use primarily by managers, 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 flexible production and manpower systems 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.

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
<p>1 Understand the definition and benefits of the flexible production and manpower systems</p>	<p>1.1 explain how the health, safety and hygiene requirements of a work area can influence improvement activities</p> <p>1.2 defines a flexible production and manpower system</p> <p>1.3 explain the benefits of a flexible production and manpower system within food operations</p> <p>1.4 summarise how waste can be reduced through the application of flexible production and manpower systems</p> <p>1.5 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution</p>			
<p>2 Understand terminology and application of system components</p>	<p>2.1 explain the meaning of level schedules, load and capacity diagrams</p> <p>2.2 explain how to calculate Takt time</p> <p>2.3 explain the term 'standard work in progress'</p> <p>2.4 justify the application of visually controlled systems and signals, based on the demand of subsequent processes</p> <p>2.5 explain the application of skills matrices and consignment stocking</p> <p>2.6 summarise the process of working practice simplification and the reduction of human error risk</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand how to maximise effectiveness of systems and asset care	3.1 explain the consequences of introducing a new improved part/process/material router 3.2 explain how root cause analysis can support problem solving 3.3 clarify how to maximise equipment effectiveness through stabilisation and optimisation 3.4 explain what asset care/best practice effectiveness review is 3.5 summarise the purpose of robust routine asset care and operation			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
4 Understand system techniques and workplace layout	<p>4.1 explain the appropriate techniques that provide value to the customer including:</p> <ul style="list-style-type: none"> - Push-pull systems - Single piece flow - Just in time (JIT) - Kanban - Autonomation <p>4.2 explain the techniques used to visually communicate the work done including:</p> <ul style="list-style-type: none"> - level schedules - load and capacity diagrams - revised batch sizes - Takt time <p>4.3 describe the lay out of an effective workplace including:</p> <ul style="list-style-type: none"> - cellular manufacturing incorporating parallel lines - U-shaped cells 			

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Unit 48: Principles of Statistical Process Control Procedures (SPC) in Food Operations

Unit reference number: F/601/2968

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 statistical process control procedures (SPC) in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 statistical process control procedures (SPC) 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.

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 Understand the purpose and use of statistical process control	1.1 explain how the health, safety and hygiene requirements of a work area can influence statistical process control 1.2 summarise the purpose statistical process control 1.3 explain the techniques used as part of statistical process control 1.4 explain where and why statistical process control is used and the benefits it offers 1.5 clarify where process control fits within a continuous improvement environment 1.6 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 performance and variation in statistical process control	2.1 explain the importance of process performance to customer satisfaction and process costs 2.2 clarify the importance of standardisation within a process operation 2.3 explain why process performance can only be determined when it is controlled 2.4 describe how process control can improve process performance 2.5 summarise the benefits of prevention and detection 2.6 explain common cause variation within food processing, and the impact it can have 2.7 explain special cause variation within food processing, and the impact it can have			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the use of data and control charts in statistical process control	3.1 clarify how data is gathered and analysis techniques are used 3.2 explain how data can be used to communicate abnormalities within a process 3.3 summarise the main types of control charts used for spc and their features and benefits including; <ul style="list-style-type: none"> - run charts - histograms - box plots - time series charts - pareto diagrams - stem and leaf plots 3.4 explain the meaning of the terms 'population' and a 'sample' 3.5 explain what the measurements of central tendency and variability are			
4 Understand the normal statistical curve, statistical terms and process capability	4.1 explain what the properties of a normal curve of distribution are 4.2 explain the terms mean, median, mode, standard deviation, range and variance 4.3 explain process capability (Cp and Cpk) and how it is determined			

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Unit 49: Principles of Design of Experiments (DOE) in Food Operations

Unit reference number: J/601/2969

Level: 3

Credit value: 3

Guided learning hours: 16

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of Design of Experiments (DOE) in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 Design of Experiments (DOE) 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.

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	Understand the purpose, importance and completion of DOE	<p>1.1 explain how the health, safety and hygiene requirements of a work area can influence the design of experiment improvement technique</p> <p>1.2 summarise the purpose of DOE as an improvement technique in food operations</p> <p>1.3 clarify why DOE is used and how this can benefit an improvement project</p> <p>1.4 explain the importance of determining the scope of an experiment</p> <p>1.5 explain how to complete a DOE project</p> <p>1.6 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution</p>			
2	Understand the techniques, data and terms used in the DOE	<p>2.1 explain the tools and techniques used in the DOE</p> <p>2.2 The data required to carry out the DOE</p> <p>2.3 summarise how population and sample size are used in the DOE</p> <p>2.4 explain the meaning of the terms Alpha risk and Beta risk</p> <p>2.5 explain the meaning of a population and a sample in terms of the DOE</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the use of graphical displays and the design of arrays	3.1 explain how to calculate mean, median, mode, standard deviation, range and variance 3.2 clarify how graphical display can be used to show main effects and interactions 3.3 explain the design of Arrays linked to the design of interactions including: <ul style="list-style-type: none"> - Full factorial - 2k factorial - Fractional 			

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Unit 50: Principles of Quality Function Deployment (QFD) in Food Operations

Unit reference number: A/601/2970

Level: 3

Credit value: 4

Guided learning hours: 21

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of Quality Function Deployment (QFD) in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 Quality Function Deployment (QFD) 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.

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
<p>1 Understand the advantages of QFD and the quality lever model</p>	<p>1.1 explain how the health, safety and hygiene requirements of a work area can influence the QFD technique</p> <p>1.2 the advantages of using QFD to support the delivery of your achieving excellence strategy</p> <p>1.3 the 'quality lever' and how QFD fits this model</p> <p>1.4 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution</p>			
<p>2 Understand how to plan QFD and how it relates to improvement techniques</p>	<p>2.1 explain the terms 'house of quality' and 'voice of the customer'</p> <p>2.2 describe how to develop and plan a QFD activity</p> <p>2.3 explain how QFD relates to other improvement techniques including:</p> <ul style="list-style-type: none"> - Potential Failure Modes and Effects Analysis, - Design of Experiments - Value Analysis - Control Plans - Pugh Concept Diagrams <p>2.4 summarise relevant tools and techniques as part of a QFD activity</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the phases of QFD, customer's requirements and matrices	3.1 the four phases of QFD including necessary inputs and outputs for each phase including: <ul style="list-style-type: none"> - pre-planning - design deployment - process and production planning - managing deployment 3.2 clarify what the customer's requirements are within a QFD project, in terms of needs and expectations, features and functions 3.3 explain how to produce matrices for relationships, specifications, technical requirements and planning 3.4 explain how to score matrices within the QFD			

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Unit 51: Principles of Response Surface Methodology in Food Operations

Unit reference number: F/601/2971

Level: 3

Credit value: 3

Guided learning hours: 17

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of response surface methodology in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 response surface methodology 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.

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	Understand the use and working of response surface methodology	<p>1.1 explain how the health, safety and hygiene requirements of a work area can influence the application of response surface methodology</p> <p>1.2 summarise the use of response surface methodology and how it can be used in a six sigma improvement project</p> <p>1.3 explain how response surface methodology works</p> <p>1.4 summarise the tools and techniques which can be associated with response surface methodology</p> <p>1.5 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution</p>			
2	Understand data and statistical validity in response surface methodology	<p>2.1 summarise the data necessary to carry out a response surface methodology project</p> <p>2.2 explain what constitutes a statistically valid sample size</p> <p>2.3 the meaning of the terms population and a sample in response surface methodology activity</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand response surface methodology terms and cost benefits	3.1 explain what is meant by a method of steepest ascent 3.2 explain what is meant by the terms, coded variables and un-coded variables 3.3 describe what is meant by Alpha risk and Beta risk 3.4 explain how to calculate: mean, median, mode, standard deviation, range and variance 3.5 summarise how to determine the cost benefits associated with response surface methodology			

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(if sampled)

Unit 52: Principles of Value Stream Mapping (VSM) in Food Operations

Unit reference number: L/601/2973

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 value stream mapping (VSM) in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 value stream mapping (VSM) 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.

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 Understand the processing activity and requirements for VSM	1.1 explain the process used to select parts or materials for a value stream mapping activity 1.2 explain the characteristics of the food and the processing activity that can support the VSM activity 1.3 summarise the process used to set VSM objectives 1.4 clarify the resources and requirements of a VSM activity 1.5 explain the principles and processes essential to value stream mapping 1.6 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution			
2 Understand VSM evaluation, targets and communication	2.1 summarise the improvements that can be achieved using value stream mapping 2.2 explain how improvement opportunities can be evaluated 2.3 explain how to set quantifiable objectives and targets for the future state maps 2.4 summarise the techniques used to visually communicate information and results			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the techniques and procedures supporting VSM	3.1 explain how root cause analysis can support problem solving 3.2 explain what system lead time and actual lead time are 3.3 explain Takt time and its application in support of VSM 3.4 summarise what constitutes value adding and non-value adding activities 3.5 clarify the purpose of standard operating procedures and specifications			

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Unit 53: Principles of Visual Management Systems in Food Operations

Unit reference number: R/601/2974

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 visual management systems in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 visual management systems 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.

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
<p>1 Understand the processing activity and requirements for visual management systems</p>	<p>1.1 explain how the health, safety and hygiene requirements of a work area can influence visual management systems</p> <p>1.2 justify the criteria used to select an area/processing activity</p> <p>1.3 explain the importance of understanding the food process/activity for which the visual management systems are being developed</p> <p>1.4 explain the quality factors of the food/drink being processed and how these influence the selection of the visual management systems</p> <p>1.5 summarise the factors to be considered when selecting a visual management system</p> <p>1.6 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
<p>2 Understand the creation of the visual factory, and the business performance measures for visual management systems</p>	<p>2.1 summarise the information required to develop local visual management systems</p> <p>2.2 explain how visual management systems are used to create 'the visual factory' including:</p> <ul style="list-style-type: none"> - Kanban systems - card systems - colour coding - floor footprints - graphs - team boards <p>2.3 clarify how business performance measures are differentiated from local performance measures</p> <p>2.4 explain the measures of performance in a lean business operation including;</p> <ul style="list-style-type: none"> - health, safety and the environment - right first time - cost - responsiveness - process concerns and corrective actions - workplace organisation 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand measurement techniques and the importance of monitoring arrangements for visual management systems	3.1 explain the application of the measurement techniques required for communicating the visual management system including: <ul style="list-style-type: none"> - target versus actual - percentage right first time - Pareto analysis - bar charting - action plans - Paynter charts 3.2 summarise why it is important to monitor and maintain the effectiveness of visual management systems			

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(if sampled)

Unit 54: Principles of Analysing and Selecting Areas for Achieving Excellence in Food Operations

Unit reference number: Y/601/2975

Level: 3

Credit value: 2

Guided learning hours: 12

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of analysing and selecting areas for achieving excellence in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 analysing and selecting areas 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.

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 Understand selection information and the analysis of graphical data	1.1 explain how the health, safety and hygiene requirements of a work area can influence the process of analysis 1.2 summarise the information required to conduct the activity 1.3 explain graphs and histograms are created 1.4 explain how graphical data is presented including: <ul style="list-style-type: none"> - pie charts - bar charts 1.5 explain how graphical data is analysed 1.6 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 key features of the analysis	2.1 summarise the techniques used to communicate information and results 2.2 explain the difference between lead time and cycle time 2.3 explain how a bill of materials (BOM) structure is configured for each of the representative areas 2.4 clarify the origin/source of the resources within the chosen area 2.5 summarise the principles of evaluation linked to the selection of representative resources for the chosen area 2.6 explain how root cause analysis can support problem solving			

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(if sampled)

Unit 55: Principles of Failure Modes and Effects Analysis (FMEA) in Food Operations

Unit reference number: D/601/2976

Level: 3

Credit value: 2

Guided learning hours: 12

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of Failure Modes and Effects Analysis (FMEA) in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 Failure Modes and Effects Analysis (FMEA) 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.

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 Understand the features and benefits the FMEA system	1.1 explain how the health, safety and hygiene requirements of a work area can influence a failure modes and effects analysis 1.2 summarise the main features and benefits of carrying out a failure modes and effects analysis 1.3 explain the roles and responsibilities of the team needed to construct and update a failure modes and effects analysis 1.4 explain how System FMEA, Concept FMEA, Design FMEA and Process FMEA are used 1.5 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 FMEA terminology and use	2.1 explain the significance of failure mode, failure effect and failure cause to food/drink processing 2.2 explain the rating scale used in failure modes and effects analysis projects, including the: <ul style="list-style-type: none"> - severity rating scale - occurrence rating scale - detection rating scale 2.3 explain how risk priority numbers (RPN) are calculation and how they are applied 2.4 explain the purpose of risk reduction and the approaches available 2.5 explain when to start a failure modes and effects analysis 2.6 explain what failure modes and effects analysis updating are			

Learner name: _____

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Unit 56: Principles of Six Sigma Process Mapping in Food Operations

Unit reference number: H/601/2977

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 Six Sigma process mapping in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 Six Sigma process mapping 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.

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 Understand the use and benefits Six Sigma process mapping	1.1 explain how the health, safety and hygiene requirements of a work area can influence Six Sigma process mapping 1.2 summarise how the application of Six Sigma process mapping meets your organisation's objectives set out in your achieving excellence strategy 1.3 explain the benefits of carrying out Six Sigma process mapping 1.4 summarise what a Six Sigma process map is and how it is constructed 1.5 how the Six Sigma process map integrates within a Six Sigma project 1.6 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 variables in Six Sigma process mapping	2.1 explain what is meant by key process input variables (KPIVs) and key process output variables (KPOVs) 2.2 summarise the data collection points for the key process input variables and key process output variables 2.3 explain what the main types of key process input variables and key process output variables are in terms of being controllable, critical, noise, or standard operating procedures			
3 Understand role and responsibilities and value added activity in Six Sigma process mapping	3.1 justify the workplace role and responsibilities of a person best suited to create the six sigma process map 3.2 summarise the roles and responsibilities of suitable individuals within a food/drink process mapping team 3.3 explain the difference between a value added activity and non-value added activity			

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Unit 57: Principles of Six Sigma Methodology in Food Operations

Unit reference number: K/601/2978

Level: 3

Credit value: 3

Guided learning hours: 17

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of Six Sigma methodology in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 Six Sigma methodology 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.

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
<p>1 Understand the use and benefits of Six Sigma process methodology</p>	<p>1.1 explain how the health, safety and hygiene requirements of a work area can influence Six Sigma process methodology</p> <p>1.2 explain the application of Six Sigma methodology in meeting the business objectives set out in your achieving excellence strategy</p> <p>1.3 summarise the Six Sigma infrastructure and philosophy</p> <p>1.4 explain the benefits that will arise from a Six Sigma project</p>			
<p>2 Understand Six Sigma methodology</p>	<p>2.1 explain the 'parts per million opportunities' goal of Six Sigma</p> <p>2.2 explain how to calculate defects per million opportunities (DPMO)</p> <p>2.3 summarise the five phases of Six Sigma that are applied to a project</p> <p>2.4 explain the critical to quality characteristic (CTQC)</p> <p>2.5 clarify how non-value added activity can serve as a roadblock for achieving Zero Defect</p> <p>2.6 explain what an 'opportunity for defect' is</p> <p>2.7 evaluate the relationship between key process input variables (KPIV) and key process output variables (KPOV), using the equation $Y=(f)x$</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand roles and responsibilities in Six Sigma methodology	3.1 summarise the roles and responsibilities of the key players in the Six Sigma process including; <ul style="list-style-type: none"> - champion - mentor - master black belt - black belt - green belt - yellow belt 3.2 explain the extent of your own workplace authority, and to whom you should report in the event of problems that you cannot resolve			

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Unit 58: Principles of Six Sigma Metrics in Food Operations

Unit reference number: M/601/2979

Level: 3

Credit value: 4

Guided learning hours: 22

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of Six Sigma metrics in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 Six Sigma metrics 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.

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	Understand the use and benefits of Six Sigma metrics	<p>1.1 explain how the health, safety and hygiene requirements of a work area can influence Six Sigma process metrics</p> <p>1.2 summarise the main features and benefits of carrying out a Six Sigma metrics activity</p> <p>1.3 explain the importance of using metrics to drive a Six Sigma project</p> <p>1.4 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution</p>			

Learning outcomes		Assessment criteria	Evidence type	Portfolio reference	Date
2	Understand the utilisation of Six Sigma metrics	<p>2.1 explain how to calculate defects per million opportunities, defects per unit and rolled throughput yield</p> <p>2.2 explain the utilisation of Z tables in the calculation of the Sigma score</p> <p>2.3 clarify the time period necessary to calculate a meaningful baseline</p> <p>2.4 explain how to set realistic objectives and targets for the Six Sigma metrics activity</p> <p>2.5 summarise how data is gathered for inclusion in a metric chart</p> <p>2.6 explain how a Six Sigma metric chart is constructed</p> <p>2.7 explain the relationship between 'parts per million', 'defects per million opportunities', Yrt and the Sigma score</p>			
3	Understand data in Six Sigma metrics	<p>3.1 distinguish between variable and attribute data</p> <p>3.2 explain why it is advantageous to transform attribute data into variable data</p> <p>3.3 explain how to transform attribute data into variable data</p> <p>3.4 clarify the significance of the 1.5S shift, and how it can be utilised to infer long-term metric values</p>			

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Unit 59: Principles of a Set-up Reduction Programme in Food Operations

Unit reference number: H/601/2980

Level: 3

Credit value: 4

Guided learning hours: 22

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of a set-up reduction programme in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 a set-up reduction programme 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.

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 Understand the implementation and resources for a set-up reduction programme	1.1 explain how the health, safety and hygiene requirements of a work area can influence a set-up reduction 1.2 explain the criteria used to select an area/processing activity for a set-up reduction activity 1.3 summarise the importance of understanding the food/drink process or activity under review 1.4 explain the qualities of the food/drink being processed and how these influence improvement opportunities 1.5 justify the people and resources needed to support the set-up reduction activity 1.6 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 requirements and evaluation of a set-up reduction programme	2.1 explain the application of the Deming cycle (plan, do, check, act) 2.2 explain the structure and operational requirements of a set-up reduction activity 2.3 summarise the improvements to the set-up that can be achieved 2.4 explain how to evaluate improvement opportunities 2.5 describe how to set quantifiable objectives and targets for the improved set-up			
3 Understand the communication and utilisation of a set-up reduction programme	3.1 explain the purpose of standard operating procedures (SOPs) and specifications and how useful they are to a set-up reduction activity 3.2 explain the techniques used to visually communicate improvement opportunities 3.3 clarify how root cause analysis can support problem solving 3.4 explain the difference between motion and work 3.5 explain the difference between value adding and non-value adding activities			

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Unit 60: Principles of Mistake/Error Proofing (Poka Yoke) in Food Operations

Unit reference number: K/601/2981

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 mistake/error proofing (Poka Yoke) in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 mistake/error proofing (Poka Yoke) 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.

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
<p>1 Understand the benefits and requirements for mistake/error proofing activity</p>	<p>1.1 explain how the health, safety and hygiene requirements of a work area can influence a mistake/error proofing activity</p> <p>1.2 summarise the main features and benefits of carrying out a mistake/error proofing activity</p> <p>1.3 explain the difference between mistake/error proofing and prevention and detection</p> <p>1.4 summarise the criteria used to select an area/processing activity for a mistake/error proofing activity</p> <p>1.5 explain the importance of understanding the food/drink process or activity to which the mistake/error proofing activity is being applied</p> <p>1.6 explain the qualities of the food being processed and how these influence the selection of the activity</p> <p>1.7 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
2 Understand the application of mistake/error proofing activity	2.1 explain how mistake/error proofing can lead to zero defects 2.2 clarify the relationship between errors and defects 2.3 summarise the different types and range of mistakes 2.4 explain how defects originate in products or processes 2.5 explain how the role of source inspection contributes to the reduction of defects 2.6 explain how mistake/error proofing (Poka yoke) tools are applied 2.7 justify the information contained in mistake/error proofing documentation 2.8 explain the analysis and charting methodology used for mistake/error proofing			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the utilisation of mistake/error proofing activity	3.1 explain the financial implications of mistake/error proofing projects 3.2 explain the relationship between mistake/error proofing and other continuous improvement processes 3.3 clarify how trials are used to measure the effectiveness of mistake/error proofing projects 3.4 explain the different types and range of mistake proofing devices used 3.5 summarise the roles and responsibilities of individuals within a mistake/error proofing team			

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Unit 61: Principles of a Characteristic Selection Matrix in Food Operations

Unit reference number: M/601/2982

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 a characteristic selection matrix in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 a characteristic selection matrix 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.

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
<p>1 Understand the requirements for a characteristic selection matrix</p>	<p>1.1 explain how the health, safety and hygiene requirements of a work area can influence a characteristic selection matrix</p> <p>1.2 explain what a characteristic selection matrix is and why we need to produce them</p> <p>1.3 identify who is best placed within the workplace to create a characteristic selection matrix</p> <p>1.4 summarise the five step process used to generate a characteristic selection matrix</p> <p>1.5 explain the meaning of the term 'customer' when producing a characteristic selection matrix</p> <p>1.6 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution</p>			
<p>2 Understand the application of a characteristic selection matrix</p>	<p>2.1 explain the key process output and input variables</p> <p>2.2 clarify where the characteristic selection matrix appears in the quality function deployment matrix</p> <p>2.3 distinguish between a characteristic selection matrix and a failure modes and effects analysis</p> <p>2.4 explain the inter-relationship between six sigma process mapping and a characteristic selection matrix</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the utilisation of a characteristic selection matrix	3.1 explain the scoring of a characteristic selection matrix 3.2 explain how a process map links into a characteristic selection matrix 3.3 summarise how the results from a characteristic selection matrix can be utilised 3.4 explain how to prioritise a six sigma project team's focus			

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Unit 62: Principles of Capability Studies in Food Operations

Unit reference number: A/601/2984

Level: 3

Credit value: 4

Guided learning hours: 22

Unit summary

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

The unit is designed for use primarily by managers, 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 capability studies 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.

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	Understand the requirements and need for capability studies	<p>1.1 explain how the health, safety and hygiene requirements of a work area can influence capability studies</p> <p>1.2 explain why we need to assess process capability, and how this affects a Six Sigma project</p> <p>1.3 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution</p>			
2	Understand the application of capability studies	<p>2.1 explain the meaning of the term sigma score (Z)</p> <p>2.2 explain how the sigma score (Z) is calculated and used to estimate the percentage outside of specification</p> <p>2.3 clarify what Cp and Cpk are, and explain how are they calculated</p> <p>2.4 how long-term capability is calculated from short-term data</p> <p>2.5 clarify the number of samples needed for a statistically valid short-term capability study</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the utilisation of capability studies	3.1 explain the meaning of the terms a population and a sample 3.2 explain how to select an appropriate sample size 3.3 summarise how parts per million are calculated 3.4 explain how to calculate mean, median, mode, standard deviation, range, and variance 3.5 clarify how to perform rational sub-grouping			

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Unit 63: Principles of Multi-Variance Charts in Food Operations

Unit reference number: F/601/2985

Level: 3

Credit value: 3

Guided learning hours: 17

Unit summary

This unit supports workforce and/or vocational development for those who need to understand the principles of multi-variance charts in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 multi-variance charts 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.

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	Understand the requirements and benefits of multi-variance charting	1.1 explain how the health, safety and hygiene requirements of a work area can influence multi-variance charting 1.2 justify why we need to carry out multi-variance charting and the potential benefits to be gained 1.3 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution			
2	Understand the application of multi-variance charting	2.1 explain how to construct a data demographics form 2.2 explain how to construct a multi-variance chart 2.3 explain how the chart is used to assess within-piece variation, piece-to-piece variation and time-to-time variation 2.4 summarise the amount of data required to draw statistically valid conclusions from the chart			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the utilisation of multi-variance charting	3.1 explain the use of tools in the development of further conclusions including; <ul style="list-style-type: none"> - bar charts - box plots - histograms - stem and leaf diagrams - pareto diagrams - time series charts 3.2 summarise the benefits of multi-variance analysis with respect to design of experiments (DOE)			

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Unit 64: Principles of Hypothesis Testing in Food Operations

Unit reference number: J/601/2986

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 hypothesis testing in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 hypothesis testing 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.

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	Understand the function and benefits of hypothesis testing	1.1 explain how the health, safety and hygiene requirements of a work area can influence hypothesis testing 1.2 summarise what hypothesis testing is 1.3 explain why hypothesis testing is used in food operations 1.4 explain how hypothesis testing can benefit a Six Sigma improvement project 1.5 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 samples and tests in hypothesis testing	2.1 explain why it is important to identify a suitable sample size 2.2 identify suitable sample sizes and explain how they are calculated 2.3 explain how hypothesis testing is conducted 2.4 summarise how to determine the correct statistic from tests including: <ul style="list-style-type: none"> - F-test - Chi-Square test - Normality tests - Test - Levene's test - Bartlett's test - Contingency tables - One way ANOVA 			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand terminology in hypothesis testing	3.1 explain the meaning of the terms Alpha risk, Beta risk and Delta/Sigma ratio 3.2 distinguish between practical difference and statistical difference 3.3 explain how to calculate mean, median, mode, standard deviation, range and variance 3.4 distinguish between the terms population and sample 3.5 explain the terms null hypothesis and alternate hypothesis			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 65: Principles of Evolutionary Operations (EVOP) in Food Operations

Unit reference number:	L/601/2987
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 evolutionary operations (EVOP) in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 evolutionary operations (EVOP) 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.

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	Understand the benefits and use of EVOP	1.1 explain how the health, safety and hygiene requirements of a work area can influence evolutionary operations 1.2 summarise the advantages and disadvantages to using EVOP 1.3 explain why EVOP is used as an improvement activity 1.4 explain how EVOP can be used to support improvements in food operations 1.5 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 application of EVOP	2.1 explain what is meant by a cycle and a phase 2.2 summarise the data gathered during an EVOP activity 2.3 explain how EVOP is used in six sigma improvement projects 2.4 clarify how, why and when an EVOP should be re-run 2.5 explain what statistics should be calculated in applying EVOP 2.6 explain how to calculate measurements of central tendency and variation 2.7 clarify how sample size selection ensures the statistical validity of an experiment 2.8 explain the significance of delta/sigma ratio, alpha and beta risk to experiments.			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the utilisation of EVOP	3.1 explain how EVOP boards are created and used 3.2 explain how to complete cost/benefit analysis within EVOP 3.3 summarise how full factorial, 2k factorial and fractional factorial experiments are used 3.4 clarify how graphs are used to determine main effects and interactions 3.5 explain why it is important to identify suitable optimal conditions 3.6 clarify the use of action plans in helping to ensure optimum conditions are implemented			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 66: Principles of Central Limit Theorem and Confidence Intervals in Food Operations

Unit reference number:	Y/601/2989
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 central limit theorem and confidence intervals in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 central limit theorem and confidence intervals 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.

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	Understand the function of central limit theorem and confidence intervals	<p>1.1 explain how the health, safety and hygiene requirements of a work area can influence central limit theorem and confidence intervals</p> <p>1.2 explain what the central limit theorem is and how it can support improvement within food operations</p> <p>1.3 describe why it is important to be clear about the levels of authority of personnel linked to problem resolution</p>			
2	Understand the application of central limit theorem and confidence intervals	<p>2.1 explain what is meant by the standard error of the mean</p> <p>2.2 clarify how the central limit theorem can be used to reduce measurement error</p> <p>2.3 explain the number of observations that must be made in order to estimate a population mean when the data is not normally distributed</p> <p>2.4 explain how the standard error of the mean is calculated</p> <p>2.5 distinguish between the standard error of the mean and sample size</p> <p>2.6 explain how central limit theorem is used to reduce measurement system error</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand the utilisation of central limit theorem and confidence intervals	3.1 explain how to calculate mean, median, mode, standard deviation, range, variance, Cp and Cpk 3.2 explain how confidence intervals are calculated from the standard confidence interval equations 3.3 summarise the 'mean of means' principle			

Learner name: _____

Date: _____

Learner signature: _____

Date: _____

Assessor signature: _____

Date: _____

Internal verifier signature: _____

Date: _____

(if sampled)

Unit 67: Principles of Single Minute Exchange of Dies (SMED) in Food Operations

Unit reference number:	L/601/2990
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 single minute exchange of dies (SMED) in food operations or in a learning environment.

The unit is designed for use primarily by managers, 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 single minute exchange of dies (SMED) 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.

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
<p>1 Understand the SMED approach, objective and its contribution to Total Productive Maintenance</p>	<p>1.1 state the name of the person who developed SMED approach and method</p> <p>1.2 define what the SMED approach aims to achieve in product changeovers</p> <p>1.3 summarise the SMED objective</p> <p>1.4 explain the integral relationship of SMED with Total Productive Maintenance (TPM) as one of the six major losses</p> <p>1.5 outline the 4 analysis phases of SMED</p>			
<p>2 Understand a changeover operation and techniques considered for SMED analysis</p>	<p>2.1 explain how the health, safety and hygiene requirements of a work area can influence the process of SMED</p> <p>2.2 describe a changeover operation that is considered for SMED analysis</p> <p>2.3 summarise the eight techniques that should be considered in implementing SMED</p> <p>2.4 distinguish between external set up and internal set up operations</p> <p>2.5 explain why it is preferable to convert internal set up to external set up operations where possible</p> <p>2.6 state the four conceptual stages which SMED improvement should pass through</p>			

Learning outcomes	Assessment criteria	Evidence type	Portfolio reference	Date
3 Understand how to analyse and improve changeovers using SMED	3.1 summarise the seven basic steps to reducing changeover using the SMED system 3.2 summarise the key elements within a changeover operation which would be essential to observe in a SMED analysis 3.3 explain why it is important to record all necessary data during a SMED analysis 3.4 explain why it is necessary to take into account parallel operations in carrying out SMED improvements 3.5 explain what the economic batch quantity ratio is and how this impacts on SMED activity and changeover efficiencies 3.6 describe why it is important to be clear about the levels of authority of personnel linked to SMED improvements			
4 Understand the potential benefits and added value of SMED	4.1 explain what the potential benefits are of using the SMED approach to changeover improvements 4.2 clarify what value added to normal line running operations can be gained from SMED activities			

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
- *Regulatory Arrangements for the Qualification and Credit Framework* (published by Ofqual, August 2008)
- 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

Pearson 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 an 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 around 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 for 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 process where practicable. Therefore, the specific arrangements for working with centres will vary. Pearson seeks to ensure that the quality assurance processes that it uses do not place undue bureaucratic processes on centres and works to support centres 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, which is 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 these qualifications must be committed to ensuring the quality of the units and qualifications they offer, 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 an 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 these qualifications is secure. Where there are quality issues identified in the delivery of programmes, Pearson will exercise the right to:

- direct centres to take actions
- 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 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 Framework
- approved by Improve

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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 Framework and approved by Improve¹. 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.

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.

¹ Improve is the Sector Skills Council for the Food and Drink Sector. For details visit www.improvetd.co.uk

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, these qualifications are 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 Framework

All qualifications accredited on the Qualification 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 Framework



For further details about the QCF, 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 Framework 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

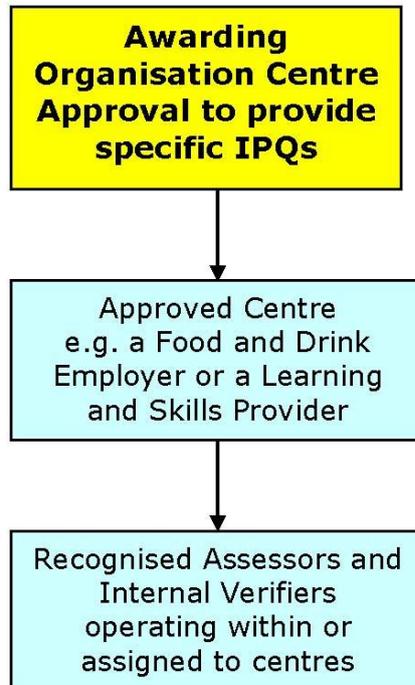
The sector view is that it is important for external quality control to be achieved through an effective external quality sampling process combined with an annual approved centre risk rating system. Primarily, external quality control is aimed at improving internal quality assurance and assessment practice, 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.



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:

- the alignment/mapping of employers training and assessment arrangements to proficiency qualifications
- an analysis of the effectiveness of internal quality and recording systems
- 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.

Annex 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.

Annex 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.

October 2017

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