



Food Science and Technology in the Food and Drink Manufacturing Industry

SCQF level 5 (6 SCQF credit points)

Unit code: H6CB 75

Unit outline

The general aim of the Unit is to give learners an overview of the practical skills, quality assurance and production procedures needed to ensure consistent quality and safety of food and drink products.

Learners who complete this Unit will be able to:

- 1 Understand the importance of accurate measuring, recording and the use of statistics in the food and drink manufacturing industry.
- 2 Analyse the preservation methods used by food and drink manufacturers to extend the shelf life of products.
- 3 Investigate procedures used to reduce waste and ensure recycling in the food and drink manufacturing industry.

This Unit is a mandatory Unit of the National 5 Skills for Work in Food and Drink Manufacturing Industry Course and is also available as a free-standing Unit. The Unit Specification should be read in conjunction with the *Unit Support Notes*, which provide advice and guidance on delivery, assessment approaches and development of skills for learning, skills for life and skills for work.

Recommended entry

Entry to this Unit is at the discretion of the centre. However, learners would normally be expected to have attained the skills, knowledge and understanding required by one or more of the following or equivalent qualifications and/or experience:

- ◆ National 4 Health and Food Technology Course or relevant component Units
- ◆ National 4 Hospitality: Practical Cookery Course or relevant component Units
- ◆ National 4 Biology Course or relevant component Units

There may also be progression from National 4 Chemistry, National 4 Environmental Science, National 4 Physics or National 4 Science Courses.

In terms of prior learning and experience, relevant experiences and outcomes may also provide an appropriate basis for doing this Unit. Further information on relevant experiences and outcomes will be given in the *Unit Support Notes*.

Core Skills

Achievement of this Unit gives automatic certification of the following:

Complete Core Skill	None
Core Skill component	Critical Thinking at SCQF level 4

Equality and inclusion

This Unit Specification has been designed to ensure that there are no unnecessary barriers to learning or assessment. The individual needs of learners should be taken into account when planning learning experiences, selecting assessment methods or considering alternative evidence. For further information please refer to the *Unit Support Notes*.

Standards

Outcomes and Assessment Standards

Outcome 1

The learner will:

- 1 Understand the importance of accurate measuring, recording and the use of statistics in the food and drink manufacturing industry by:
 - 1.1 Accurately measuring weight, temperature and time and recording them in an appropriate form.
 - 1.2 Analysing experimental data to determine the components present in a range of foods or drinks.
 - 1.3 Applying basic statistics to the formation of a sampling regime.

Outcome 2

The learner will:

- 2 Analyse the preservation methods used by food and drink manufacturers to extend the shelf life of products by:
 - 2.1 Performing shelf life experiments.
 - 2.2 Analysing the results of the experiments.

Outcome 3

The learner will:

- 3 Investigate procedures used to reduce waste and ensure recycling in the food and drink manufacturing industry by:
 - 3.1 Investigating recycling procedures for waste products produced by the food and drink manufacturing industry.
 - 3.2 Determining the waste disposal/treatment procedures employed by the food and drink manufacturing industry to reduce environmental contamination.

Evidence Requirements for the Unit

Assessors should use their professional judgement, subject knowledge and experience, and understanding of their learners, to determine the most appropriate ways to generate evidence and the conditions and contexts in which they are used.

Evidence may be presented for individual Outcomes or it may be gathered for the Unit as a whole through combining assessment in a single event. If the latter approach is used, it must be clear how the evidence covers each Outcome, and additional evidence must be provided for any Assessment Standard which has not been assessed.

Advice and guidance on possible approaches to assessment is provided in the *Unit Support Notes*.

Development of Skills for Learning, Skills for Life and Skills for Work

It is expected that learners will develop broad, generic skills through this Unit. The skills that learners will be expected to improve on and develop through the Unit are based on SQA's *Skills Framework: Skills for Learning, Skills for Life and Skills for Work* and drawn from the main skills areas listed below. These must be built into the Unit where there are appropriate opportunities.

1 Literacy

1.3 Listening and talking

2 Numeracy

2.1 Number processes

2.2 Money, time and measurement

3 Health and wellbeing

3.1 Personal learning

4 Employability, enterprise and citizenship

4.1 Employability

5 Thinking skills

5.3 Applying

5.4 Analysing and evaluating

Amplification of these is given in SQA's *Skills Framework: Skills for Learning, Skills for Life and Skills for Work*. The level of these skills should be at the same SCQF level of the Unit and be consistent with the SCQF level descriptor. Further information on building in skills for learning, skills for life and skills for work is given in the *Unit Support Notes*.

Administrative information

Published: February 2014 (version 1.0)

Superclass: WM

History of changes to National Unit Specification

Version	Description of change	Authorised by	Date

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Note: readers are advised to check SQA's website: www.sqa.org.uk to ensure they are using the most up-to-date version of the *Unit Specification*.

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