



Higher National Unit Specification

General information

Unit title: Food Industry Principles: An Introduction (SCQF level 7)

Unit code: F6VF 34

Superclass: WM

Publication date: June 2019

Source: Scottish Qualifications Authority

Version: 02

Unit purpose

This unit is designed to introduce learners to the structure of the food industry and the fundamental principles that underpin all aspects of food manufacturing. It will enable learners to explain the structure of the food industry which provides the background context for food manufacturing. The unit will also introduce learners to operations associated with food processing.

Outcomes

On successful completion of the unit the learner will be able to:

- 1 Explain the structure of the food industry.
- 2 Explain the processes of food manufacture.

Credit points and level

1 Higher National Unit credit at SCQF level 7: (8 SCQF credit points at SCQF level 7)

Recommended entry to the unit

Access to this unit will be at the discretion of the centre. However, it would be helpful if learners had good written skills, eg English at SCQF level 4 or equivalent.

Higher National Unit Specification: General information (cont)

Unit title: Food Industry Principles: An Introduction (SCQF level 7)

Core Skills

Opportunities to develop aspects of Core Skills are highlighted in the support notes for this unit specification.

There is no automatic certification of Core Skills or Core Skill components in this unit.

Context for delivery

If this unit is delivered as part of a group award, it is recommended that it should be taught and assessed within the subject area of the group award to which it contributes.

This unit is a mandatory unit in the HNC in Food Science and Technology and the PDA in Food Science. It can also be delivered as a stand-alone unit.

It is complementary to the unit F6VE 34 *Food Industry Practices: An Introduction* and it is recommended that both units are taught during the early stages of the group award.

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.

Further advice can be found on our website www.sqa.org.uk/assessmentarrangements.

Higher National Unit Specification: Statement of standards

Unit title: Food Industry Principles: An Introduction (SCQF level 7)

Acceptable performance in this unit will be the satisfactory achievement of the standards set out in this part of the unit specification. All sections of the statement of standards are mandatory and cannot be altered without reference to SQA.

Where evidence for outcomes is assessed on a sample basis, the whole of the content listed in the knowledge and/or skills section must be taught and available for assessment. Learners should not know in advance the items on which they will be assessed and different items should be sampled on each assessment occasion.

Outcome 1

Explain the structure of the food industry.

Knowledge and/or skills

- ◆ Food supply chains
- ◆ Distribution chain
- ◆ Retail market structure
- ◆ Supply chain partnerships
- ◆ External factors affecting the structure of the food industry

Outcome 2

Explain the process of food manufacture.

Knowledge and/or skills

- ◆ Preliminary operations for food processing
- ◆ Factors affecting choice of techniques
- ◆ Principles of food preservation and food storage

Evidence requirements for this unit

Learners will need to provide evidence to demonstrate their knowledge and/or skills across all outcomes by showing that they can:

- ◆ explain the main components of the food industry food supply chains: flow of materials; distribution chain; retail market structure; supply chain partnerships and show how they relate to each other.
- ◆ explain the impact of two external factors on the structure of the food industry.
- ◆ illustrate their impact with examples drawn from the food industry.
- ◆ draw conclusions on the ways in which the structure of the food industry impacts on food manufacturing.
- ◆ research preliminary operations in a particular context.
- ◆ explain factors which affect the choice of techniques in each context.
- ◆ relate principles of food preservation and food storage which apply in a particular context.

Higher National Unit Specification: Statement of standards (cont)

Unit title: Food Industry Principles: An Introduction (SCQF level 7)

Outcome 1 could be assessed in a variety of ways. For example, learners could be asked to research the food industry and provide a report on it. They could be given a brief outlining a template for the evidence. About one third of the evidence can be devoted to conclusions on the way in which the structure impacts on the food industry.

Outcome 2 could be assessed in a variety of ways. For example, learners could be asked to provide a report on food processing operations in different contexts. They could be given contexts, and asked to research the preservation techniques/preliminary operations involved. The evidence can refer to the principles of food storage that apply in each context, covering two different contexts that involve two or more food processing techniques.

It would be possible to ask learners to complete a single report, with two distinct parts covering both outcomes.



Higher National Unit Support Notes

Unit title: Food Industry Principles: An Introduction (SCQF level 7)

Unit support notes are offered as guidance and are not mandatory.

While the exact time allocated to this unit is at the discretion of the centre, the notional design length is 40 hours.

Guidance on the content and context for this unit

This unit is intended to introduce learners to the structure of the food industry and the main principles of food processing. It should be seen as complementary to the unit F6VE 34 *Food Industry Practices: An Introduction*.

Outcome 1 covers the structure of the food industry, and explains the complexity of food supply chains from raw materials to finished products and to retail distribution of manufactured food products.

The learner will develop an understanding of the influence on the food manufacturing industry of regulatory bodies, government food policies, public health initiatives, consumers' food choices that are shaped by social attitudes, as well as ethical and environmental considerations. Allergenic materials should be discussed.

The size of the firms and the different sectors of the industry should be explored as well, as the impact of the globalised economy on the operations of the food industry should be evaluated.

Outcome 2 covers food preservation techniques and the prevention of food spoilage. Preliminary operations can include techniques such as grading, sorting, peeling, washing and blanching. This outcome includes the principles of food preservation and food storage for example through heat treatment, cooling and freezing, or controlling the water activity in foods. Learners should be able to relate these principles to the relevant preservation techniques.

Guidance on approaches to delivery of this unit

The unit should be delivered in a practical context, where learners are encouraged to apply knowledge and understanding to contexts in the food industry. Throughout, learners should consider the position of food manufacturers, and the factors that influence the decisions they make about food processing.

Higher National Unit Support Notes (cont)

Unit title: Food Industry Principles: An Introduction (SCQF level 7)

For Outcome 1, learners can be encouraged to research businesses, eg food producers, retailers in the food industry, and work out how they fit into the structure and the factors which affect the way they operate. Alternatively, learners can be asked to draw the food supply chain of manufactured food products and to work out how challenges along the supply chain can influence the manufacturing process. Learners can visit food manufacturing businesses to learn how they fit in the food industry landscape and see how external factors impact on their operations.

For Outcome 2, learners could visit food manufacturing businesses to see preliminary operations for themselves. There may also be opportunities for learners to undertake practical work. It may be possible to combine the two approaches — learners could undertake research on an organisation in which they are then able to visit or make contact with.

Guidance on approaches to assessment of this unit

Evidence can be generated using different types of assessment. The following are suggestions, as there may be other methods that would be more suitable to learners.

Centres are reminded that prior verification of centre-devised assessments would help to ensure that the national standard is being met. Where learners experience a range of assessment methods, this helps them to develop different skills that should be transferable to work or further and higher education.

The assessment for Outcome 1 can be based on research undertaken by learners. A considerable amount of information on businesses involved in the food industry is available on the internet, and learners can make use of this. However, learners should be critical of the validity of the internet sources used.

Outcome 2 could be assessed in a variety of ways. For example, candidates could be asked to provide a report of food processing operations in different contexts. They could be given contexts, and asked to research the preservation techniques/preliminary operations involved. The evidence can refer to the principles of food storage that apply in each context.

This unit could be assessed in a variety of ways, eg for both outcomes, learners could produce a report. Learners may provide two separate reports or combine their work into a single report. They can be given guidance or a template on the layout and structure of the evidence. The evidence should include referencing where appropriate.

Assessment guidelines

Outcome 1

This outcome could be assessed in a variety of ways. For example, learners could be asked to research the food industry and provide a report on it. They could be given a brief outlining a template for the evidence. About one third of the evidence can be devoted to conclusions on the way in which the structure impacts on the food industry.

Higher National Unit Support Notes (cont)

Unit title: Food Industry Principles: An Introduction (SCQF level 7)

Outcome 2

This outcome could be assessed in a variety of ways. For example, learners could be asked to provide a report on food processing operations in different contexts. They could be given contexts, and asked to research the preservation techniques/preliminary operations involved. The evidence can refer to the principles of food storage that apply in each context.

It would be possible to ask learners to complete a single report covering both outcomes. The report may however have two distinct parts.

Opportunities for e-assessment

E-assessment may be appropriate for some assessments in this unit. By e-assessment we mean assessment which is supported by Information and Communication Technology (ICT), such as e-testing or the use of e-portfolios or social software. Centres which wish to use e-assessment must ensure that the national standard is applied to all learner evidence and that conditions of assessment as specified in the evidence requirements are met, regardless of the mode of gathering evidence. The most up-to-date guidance on the use of e-assessment to support SQA's qualifications is available at www.sqa.org.uk/e-assessment.

Opportunities for developing Core and other essential skills

Communication: Written Communication (Writing) at SCQF level 5

As part of their assessment work for this unit, learners are expected to explain the structure of the food industry and food processing techniques. Learners could do this by producing a written report although other presentation methods could be adopted.

If they do produce a written report then they will use written information to demonstrate their knowledge and understanding of relevant ideas and information. For this, they will be required to organise their material into a logical and effective structure make use of an appropriate format for a report. They could be asked to base their report on research that they have carried out for themselves.

History of changes to unit

Version	Description of change	Date
02	Unit content has been transferred to a new shell and typographical amendments made to wording throughout.	03/06/19

© Scottish Qualifications Authority 2008, 2019

This publication may be reproduced in whole or in part for educational purposes provided that no profit is derived from reproduction and that, if reproduced in part, the source is acknowledged.

Additional copies of this unit specification can be purchased from the Scottish Qualifications Authority. Please contact the Business Development and Customer Support team, telephone 0303 333 0330.

General information for learners

Unit title: Food Industry Principles: An Introduction (SCQF level 7)

This section will help you decide whether this is the unit for you by explaining what the unit is about, what you should know or be able to do before you start, what you will need to do during the unit and opportunities for further learning and employment.

This unit is in the HNC Food Science and Technology and PDA in Food Science. It is designed to introduce you to the fundamental principles that underpin all aspects of food manufacturing, and introduce you to the operations associated with food processing. It will also give you some background to the structure of the food industry from farm to fork, which should help to set all your studies in a suitable context.

As part of your study of the food industry, you will look at the structure of food supply chains and flow of raw materials, the distribution chains from manufacturer to retailer and the retail market structure.

You will also be introduced to the basic principles of preliminary food processing operations relating to food preservation and storage, as well as factors that affect which techniques are used in which contexts.

This unit is closely associated with the unit *Food Industry Practices: An Introduction* and together they provide an introduction to the food industry and all that it involves.

The assessment for this unit will require you to show that you can accurately explain the structure of the food industry and food processing operations. You will have to illustrate your explanations with examples.