SCQF level 6
Unit Specification

Health and Food Technology: Food Product Development

SCQF: level 6 (6 SCQF credit points)

Unit code: J21X 76

Unit outline

The general aim of this Unit is to allow learners to develop knowledge and understanding of the functional properties of ingredients in food and their use in developing food products. Learners will develop an understanding of the stages involved in developing a food product. Through a problem-solving approach, learners will produce food products to meet a range of consumer needs. They will also apply knowledge and understanding of safe and hygienic food practices and techniques.

Learners who complete this Unit will be able to:

1 Explain the food product development process
2 Develop a food product to meet specified needs

This Unit 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. Exemplification of the standards in this Unit is given in *Unit Assessment Support*.

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 5 Health and Food Technology Course or relevant Units

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 Explain the food product development process by:

1.1 Explaining the impact of the functional properties of ingredients in food products on the food product development process
1.2 Explaining in detail the stages of food product development

Outcome 2

The learner will:

2 Develop a food product to meet specified needs by:

2.1 Researching a trend influencing food product development
2.2 Using the results of the research to develop an idea for a food product
2.3 Making a prototype of a food product, using safe and hygienic practices
2.4 Evaluating the prototype and explaining how the prototype meets the specified needs

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.

For Outcome 2, learners may make one or more food product prototypes.

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

Exemplification of assessment is provided in *Unit Assessment Support*.
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 Numeracy

2.3 Information handling

2 Health and wellbeing

2.3 Physical wellbeing

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.*

Appendix: Unit support notes

Introduction

These support notes are not mandatory. They provide advice and guidance on approaches to delivering and assessing this Unit. They are intended for teachers and lecturers who are delivering this Unit. They should be read in conjunction with:

- the *Unit Specification*
- the *Unit Assessment Support packs*

Developing skills, knowledge and understanding

Teachers and lecturers are free to select the skills, knowledge, understanding and contexts which are most appropriate for delivery in their centres.

Approaches to learning and Teaching

This Unit is designed to provide flexibility and choice for both the learner and delivering centre. Approaches to learning and teaching should enhance opportunities for all learners to achieve their full potential, whether working in a whole-class, small group or supported self-study situation.

It is good practice to use a variety of methods so that learners' interest and motivation are maintained and individual preferences for different learning styles are promoted. When delivering the Unit content, account should be taken of the prior knowledge that learners may have.

Tasks should be open to allow for personalisation and choice as well as enabling learners to work at a suitable pace with appropriate support. Discussion groups or personal investigation and research are excellent ways of promoting some independence in learning. Visits and guest speakers bring commerce and employment experiences to the Unit delivery.

ICT can play an important role in the design and learning and teaching approaches within Units by supporting integration and learners' personalisation and choice. While it is important not to introduce new, additional ICT skills or knowledge, learners may be using ICT in working towards their assessment.

Centres could set varied practical tasks to allow learners to experience challenge and enjoyment in a range of practical food contexts. The range of food preparation/cooking equipment used could include:

Food processor	Microwave
Pressure cooker	Health Grill
Steamer	Bread Maker
Electric whisk	Blender/Juicer

Some examples of possible learning activities are given in the table which follows. . Please note, these are examples only and learning and teaching for this Unit can be approached in other ways.

Outcome	Possible learning and teaching approaches
Explain the food product development process	Learners could be introduced to the stages of food product development and encouraged to undertake some basic investigative work into the stages. Learners could work in pairs or small groups to explore a stage of development then share their findings with the rest of the class. Learners should be encouraged to consider the application of these stages in the food industry and may benefit from visiting a food manufacturer or supplier, or listening to guest speakers. Practical activities may be used to explore and exemplify the functional properties of ingredients in food. Learners could prepare a range of food products to demonstrate functional properties of ingredients and experiment with different ingredients or changing quantities or ratios of ingredients. Learners could then discuss the effects of these changes on the food products made and how this might be applied in the food industry.
Develop a food product to meet specified needs	In the learning and teaching for this Outcome, there are good opportunities for learners to undertake some independent investigative work. Learners could use newspaper/magazine/ internet/television features, local restaurant menus, or use the internet to survey retailers' current ranges to identify current food trends. Learners could use a range of investigative techniques to gather information about food trends, eg: ♦ interview with an appropriate expert, eg food retailer, food product developer, food manufacturer, restaurant manager/chef, dietician ♦ questionnaire/survey the target group ♦ literary research (using books, magazines, periodicals/internet-based research) ♦ visit to local food producers/suppliers ♦ visits to local businesses ♦ food policy and advice documents, including relevant legislative materials ♦ advertising and promotional campaigns

Outcome	Possible learning and teaching approaches
	Learners could develop a range of ideas for food product prototypes and display their work using story-boards or mood-boards. Learners could then evaluate each other's work and provide feedback on the suitability of the proposed products for the trend. Learners could take part in a range of practical activities in this Unit, working to given briefs to develop food product prototypes and evaluating the finished products against the key issues of the brief. Learners could also develop their evaluation skills by evaluating existing products.

Approaches to assessment

All of the Outcomes and Assessment Standards in a Unit must be covered in the assessment of a Unit.

Evidence may be gathered in a variety of forms that best suit the needs of the learner and individual centres. It is recommended that assessors use their professional judgement to determine the most appropriate way to generate evidence.

Authenticity
There are a number of techniques and strategies for ensuring that learners present work which is their own. For more information, please refer to SQA's 'Guide to Assessment'.

Opportunities for assessment and gathering evidence in this Unit

Outcome	Possible approaches to assessment
Explain the food product development process	Evidence can be gathered in a variety of forms that best suit the needs of the learner and individual centres. It is recommended that assessors use their professional judgement to determine the most appropriate way to generate evidence. Learners could provide evidence of their ability to explain, in detail, the stages of food product development through a short question paper. For a food product they have made, learners could explain how the functional properties of ingredients affect the finished food product and how this could affect the food product development process. Learners may explain the function(s) via verbal feedback, a written report, completion of a pro forma, short/restricted response questions, or undertaking a presentation to the class.
Develop a food product to meet specified needs	Teachers/lecturers could provide learners with a brief for this Outcome. Allowing learners to select from a range of briefs will allow for personalisation and choice. When researching food trends, learners could make use of: ♦ interview with an appropriate expert, eg food retailer, food product developer, food manufacturer, restaurant manager/chef, dietician ♦ questionnaire/survey the target group ♦ literary research (using books, magazines, periodicals/internet-based research ♦ visit to local food producers/suppliers ♦ visits to local businesses ♦ food policy and advice documents, including relevant legislative materials ♦ advertising and promotional campaigns Learners should collate their findings in an appropriate format for assessment. Learners could present their ideas for food products using a mood-board or story-board.

Outcome	Possible approaches to assessment
	When making food products, learners should work safely and hygienically. Learners could evaluate the finished food product using sensory testing and should also comment on how the product meets the needs identified.

Combining assessment within Units

Assessment could be combined in this Unit by holistically assessing all the Outcomes of the Unit in a single assessment. When assessment within the Unit is holistic, teachers and lecturers should take particular care to track the evidence for each individual Outcome.

Administrative information

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Superclass: NH

History of changes to National Unit Specification

Version	Description of change	Authorised by	Date
1.1	Changes from 'Analyse' to 'Explain' in Unit outline and Outcome 1, and Outcome 2 changed to reflect a single product. Order of Assessment Standards in Outcome 1 has been reversed: AS 1.1 – 'analysing' changed to 'explaining' and wording amended for clarification. All Assessment Standards in Outcome 2 have been amended to reflect a single product.	Qualifications Development Manager	April 2014
1.2	Page 3 — heading inserted above Outcome 2.	Qualifications Manager	April 2015
2.0	Level changed from Higher to SCQF level 6. Unit support notes added.	Qualifications Manager	September 2018
3.0	Unit code updated	Qualifications Manager	July 2019