Course Support Notes

Higher Health and Food Technology Course Support Notes

May 2016, version 1.2

Contents

Introduction

These support notes are not mandatory. They provide advice and guidance to support the delivery of the Higher Health and Food Technology Course. They are intended for teachers and lecturers who are delivering the Course and its Units. They should be read in conjunction with the *Course Specification*, the *Course Assessment Specification* and the *Unit Specifications* for the Units in the Course.

The Course is made up of three Units:

♦ Health and Food Technology: Food for Health (Higher)
   (6 SCQF credit points)
♦ Health and Food Technology: Food Product Development (Higher)
   (6 SCQF credit points)
♦ Health and Food Technology: Contemporary Food Issues (Higher)
   (6 SCQF credit points)

General guidance on the Course

Aims

The purpose of this Course is to allow learners to develop and apply the knowledge and skills of research, analysis and evaluation in order to make, informed food and dietary choices.

The Course addresses contemporary issues affecting food and nutrition, including ethical and moral considerations, sustainability of sources, food production and development, and their effects on consumer choices.

The Course has **five** broad and interrelated aims that enable learners to:

♦ analyse the relationships between health, nutrition and food
♦ apply understanding of the functional properties of ingredients in practical applications
♦ investigate contemporary issues affecting food and consumer choice
♦ use technological skills to develop food products for a range of dietary and consumer needs
♦ apply safe and hygienic practices in practical food preparation

Progression into this Course

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

♦ National 5 Health and Food Technology Course or relevant component Units
♦ Literacy (SCQF level 5)
♦ Numeracy (SCQF level 5)

To create a smooth progression for learners into this Higher Course, it is recommended that learners have, before starting the Course:

♦ knowledge and understanding of the relationships between health, nutrition and food
♦ knowledge of the functional properties of ingredients in food products
♦ knowledge and understanding of contemporary issues affecting food and consumer choice

and are able to:

♦ demonstrate technological skills for the development of food products
♦ demonstrate food preparation skills using safe and hygienic practices

The practical skills in this Course have applications to other subject areas and to life and work.

Centres wishing to establish the suitability of learners without prior qualifications and/or experiences and outcomes may benefit from carrying out a diagnostic review of prior life and work experiences.

Skills, knowledge and understanding covered in this Course

Information about mandatory skills, knowledge and understanding is given in the Higher Health and Food Technology *Course Assessment Specification.*

This section provides further advice and guidance about skills, knowledge and understanding that could be included in the Course.

Note: teachers and lecturers should refer to the *Course Assessment Specification* for mandatory information about the skills, knowledge and understanding to be covered in this Course.

The Higher Health and Food Technology Course develops skills, knowledge and understanding as stated in the *Course Specification*. These may be developed in each of the Course Units. However, greater emphasis will be given to developing some of these in particular Units, as shown in Table 1 below.

Table 1: Skills, knowledge and understanding that will be developed in the Course

✓✓✓   Plenty of opportunities within the Course
✓✓   Some opportunities within the Course
✓   Limited opportunities within the Course

Skills, knowledge and understanding	Food for Health	Food Product Development	Contemporary Food Issues
Analysing the relationship between health, food and nutrition	✓✓✓	✓✓	✓✓
Developing a range of practical food preparation skills and techniques to address a variety of challenging contexts	✓✓	✓✓	✓
Applying safe and hygienic practices during food preparation	✓✓	✓✓	✓
Applying a range of technological skills related to food production	✓✓	✓✓✓	✓

Developing organisational skills necessary to research, plan, prepare and evaluate products and processes	✓✓	✓✓✓	✓✓
Understanding the practical application of the functional properties of food	✓	✓✓✓	✓
Solving problems to make food products to meet specified needs	✓✓✓	✓✓✓	✓✓✓
Investigation and research skills	✓✓	✓✓	✓✓✓
Analysing a range of contemporary issues influencing food choice	✓✓	✓	✓✓✓

To enrich the delivery of the Higher Health and Food Technology Course, it is also recommended that learners engage in learning activities where they consider, and are encouraged to understand, the interrelationships between cultural, social, ethical and moral issues surrounding food. This will enable learners to make informed decisions which not only promote a sustained healthy lifestyle, but also stimulate consideration of global citizenship.

Progression from this Course

This Course or its components may provide progression to:

♦ Advanced Higher Health and Food Technology or relevant component Units
♦ National Certificate Courses at SCQF level 6 in related areas
♦ further education
♦ higher education
♦ employment and/or training

Other progression pathways are also possible including progression to other qualifications at the same or different levels.

Health and Food Technology also has applications in life, such as contributing to wellbeing and in work-related fields such as dieticians and nutritionists, health promotion, and a range of opportunities within the health and food industries.

Hierarchies

Hierarchy is the term used to describe Courses and Units which form a structured sequence involving two or more SCQF levels.

It is important that any content in a Course and/or Unit at one particular SCQF level is not repeated if a learner progresses to the next level of the hierarchy. The skills and knowledge should be able to be applied to new content and contexts to enrich the learning experience. It is important to offer new and different contexts for learning to maintain their motivation and interest in the Courses. This is for centres to manage.

The Health and Food Technology Courses have been constructed to facilitate a hierarchical arrangement across the Courses from Access 3 to Higher. While Units have the same titles and similar structures, the level of demand differs in terms of degree of difficulty and complexity from one level to the next. Learners undertaking the Health and Food Technology Courses within the same centre may undertake similar Outcomes simultaneously, with learners given recognition for their best achievements.

A differentiated approach may assist teachers/lecturers to plan activities and experiences. Activities covering the Health and Food Technology (National 5) Course could be covered, with extension work for Higher learners. Learners should be supported and encouraged to take an active role in their learning. Where Course activities, and learning and teaching, permit progress in an independent manner, teaching of mixed groups may happen more effectively.

Differentiated product development briefs could be used to distinguish between the levels. A more complex design brief may enable the learner to demonstrate greater depth of knowledge and understanding at Higher level.

For example, it is recommended that Higher demands more depth from the learner in subject-specific knowledge and understanding and a higher level of skill than those required at National 5. Learners could demonstrate a greater coherence, display greater independence and the ability to use facts to solve more complex problems.

Differentiation between levels could also be evident via the support provided. At National 5 level, there may be a mix of group work/teacher-led sessions plus some individual learning. At Higher level, a more independent learning style is required, with learners given tasks and taking on more responsibility for time management, depth and breadth of research undertaken, organising and managing food production tasks. Learners might provide evidence for justification and evaluation based on specified research or testing, not just from investigation results. Learners can show confidence in the skill of evaluation. Also, they could conduct a range of investigations with minimal support. Learners working at different levels may benefit from access to differentiated learning materials to allow for independent work while the teacher is teaching/providing support to others within the class.

Centres should take care to ensure that learners progressing from one level to the next are exposed to different contexts for learning and assessment to avoid repetition. This can be achieved by focusing on different product development briefs, encompassing different health needs or contemporary food issues and

exposing learners to an increasing range of practical food preparation skills and contexts.

Setting varied practical tasks which allow learners to demonstrate creativity, complexity and combinations of skill may facilitate more naturally-occurring evidence.

Approaches to learning and teaching

Experiential learning in relevant contexts and supported investigation techniques could be used as the vehicle for developing knowledge, understanding and skills in this Course. The Course includes development of thinking and practical skills through problem-solving activities.

Well-planned learning and teaching activities will provide a framework which considers and meets the different learning styles of individual learners. We know that active learning often has a greater impact than passive learning; therefore the guidance provided here will focus on the learner and approaches to learning.

The subject matter of the Health and Food Technology Courses provides an ideal platform for adopting a variety of learning and teaching opportunities.

Suggested learning and teaching approaches
There are three Units and a Course assessment in the Higher Health and Food Technology Course. The level of demand in each Unit corresponds with the Scottish Credit and Qualifications Framework at level 6.

The three Units in the Course are:

♦ Health and Food Technology: Food for Health (Higher)
 (6 SCQF credit points)
♦ Health and Food Technology: Food Product Development (Higher)
 (6 SCQF credit points)
♦ Health and Food Technology: Contemporary Food Issues (Higher)
 (6 SCQF credit points)

The learning and teaching for Units could be approached in a variety of ways. Units may be taught in any order. However, it is more likely to produce a better learning experience if the learning and teaching uses an integrative approach. The following diagram illustrates some alternative approaches to teaching the Units. These are not the only ways of approaching the learning and teaching opportunities within the Course.

Example 1

In this example, the learning and teaching for Units may allow a more holistic approach to the Course if all three Units are delivered together. Common themes or topics may be identified across Units and learning and teaching structured to accommodate this. Such an approach may lead to the production of more naturally-occurring evidence.

Food for Health

Food Product Development

Contemporary Food Issues

Course assessment
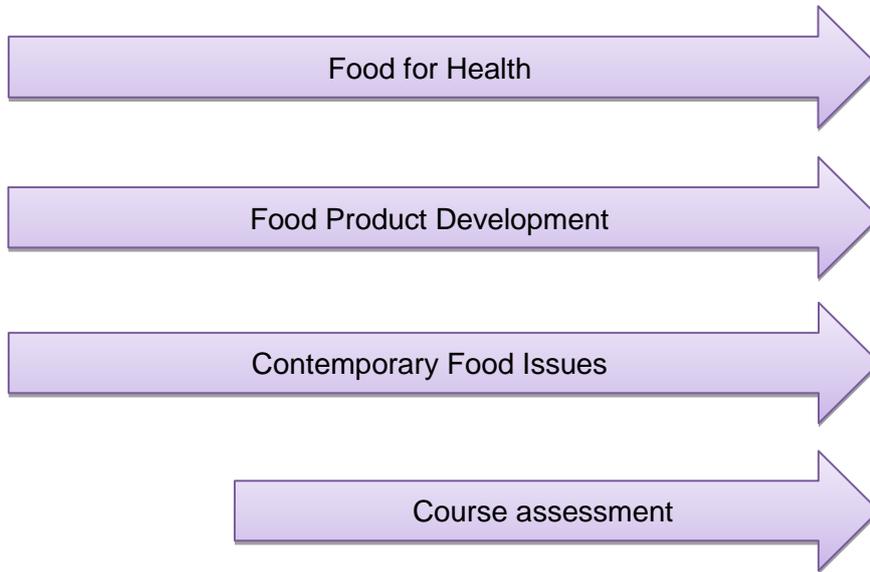
Example 2

In this example, the learning and teaching is staggered for each Unit, allowing for more consolidation and focus on an individual Unit before a new Unit is introduced.

Food for Health

Food Product Development

Contemporary Food Issues
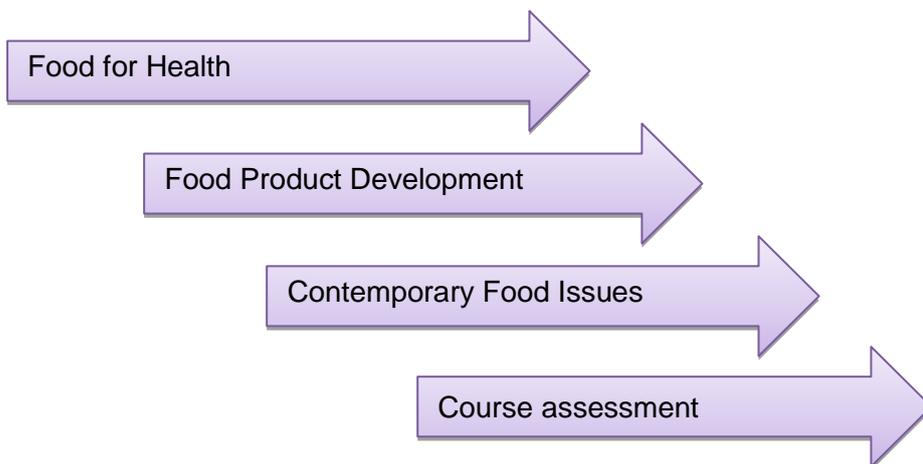
Course assessment

Example 3
In this third example, the learning and teaching for the *Food for Health* Unit is delivered across the duration of the Course, with the other two Units running back-to-back. This may help with the assessment loading for the Course.

Food for Health

Food Product Development

Contemporary Food Issues

Course assessment

Examples of integrated learning experiences
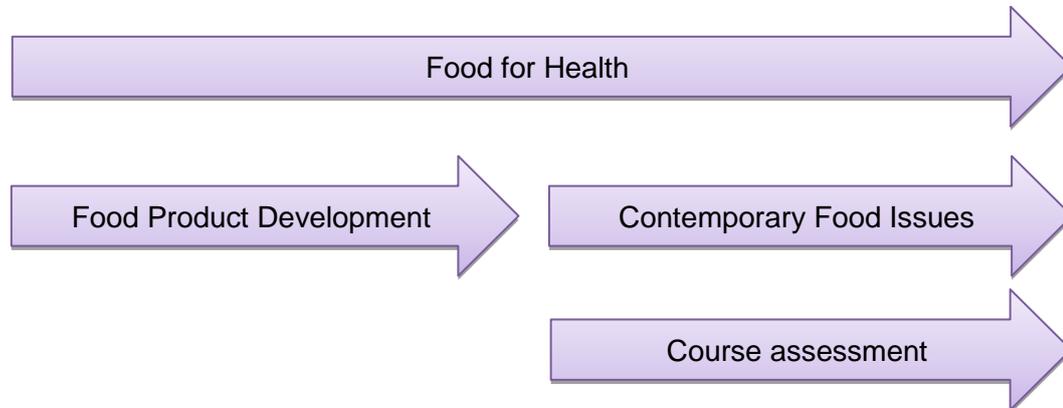The subject matter of Health and Food Technology provides an ideal platform for adopting a variety of learning and teaching methods. The integration of theory with practical activities reinforces and applies knowledge, understanding and skills in meaningful contexts. Care should be taken during each learning activity to ensure learners are aware of what they have learned and are encouraged to consider other applications for these skills, knowledge and understanding in learning, life and work.

In order to encourage personalisation and choice, teachers/lecturers should allow the choice of different briefs and scenarios. Learners should be encouraged to choose their own methods of conducting research, testing and presenting results. Case studies or scenarios could be devised which incorporate experiences, knowledge, understanding and skill from two or three Units.

Examples of integrated learning activities:

♦ Learners could investigate factors affecting the food choices of a chosen group and then devise a suitable food product to meet the dietary and health needs of the group.
♦ Learners could devise a new vegetarian food product which takes account of the dietary and health needs of a target group, for example adolescents.

Guidance on learning and teaching activities
The integration of knowledge and understanding within practical activities reinforces skills, knowledge and understanding in meaningful contexts. Care should be taken during each learning activity to ensure learners are aware of what they have learned and encouraged to consider other applications for these skills, knowledge and understanding in their life, learning and work.

Formal teaching may be more appropriate for some aspects of learning in Health and Food Technology, particularly when introducing health and safety techniques

and practices, or new processes. However, independence in learning can only be achieved if staged handover of responsibility for learning takes place.

Effective learning and teaching will draw on a variety of approaches to enrich the experience of learners. In particular, practical approaches to learning and teaching which provide opportunities for personalisation and choice will help to motivate and challenge learners.

Throughout this Course, local contexts could be used as a basis for learning and teaching. Other stimulus materials such as visual aids, digital or electronic images, visits to local food producers or retailers, and visits to local or national food events may also help to motivate and encourage learners. Examples of suggested resources that could be used for the delivery of this Course can be found in Appendix 2.

Whatever the learning and teaching approaches, they should support Curriculum for Excellence's four capacities to enable each learner to develop as a successful learner, a confident individual, a responsible citizen and an effective contributor.

Further information about possible approaches to learning and teaching for each Unit can be found in the *Unit Support Notes.*

Table 2 below suggests examples of different learning activities which can take place related to the Units and can be selected to suit particular learning styles. It also provides the opportunity for teachers/lecturers to consider where learning and assessment activities may be integrated within and between Course Units.

Table 2

Possible learning activities			
Aims of the Course	**Food for Health**	**Food Product Development**	**Contemporary Food Issues**
Analysing the relationships between health, food and nutrition	Mind mapping prior knowledge. Completing relationship diagrams. Carrying out practical food activities linked to dietary needs of individuals or health issues. Case study or scenarios linked to health issues or dietary needs. Visiting speakers, eg dietician, health promotion specialists. Visiting food preparation or catering facilities. Using of ICT — video clip, digital media or searching websites. Using nutrition calculation software. Conducting surveys or questionnaires. Completing displays, mood boards or collages of headlines linked to diet and health issues. Using ICT to devise posters, leaflets or digital presentation to promote or	Mind mapping prior knowledge of food products which promote an aspect of health. Visiting food production or catering facilities to investigate the production of food products. Visiting local and national shows or events which promote new food products. Practical food activities linked to devising a food product to meet dietary needs of individuals, address a health issue or address a contemporary food issue. Sensory testing of food products. Peer- or self-evaluation of developed food products. Case studies or scenarios linked to food product development opportunities. Using of ICT or online research of supermarkets to establish the current range of health promoting food products.	Mind mapping prior relevant knowledge. Carrying out surveys or online searches of supermarkets to establish the range of food products that help address contemporary food issues. Surveying factors affecting food choices in relation to health. Group tasks, research, and presentations linked to food issues. Case studies or scenarios linked to food issues. Visits from speakers linked to food issues such as supermarket managers or farmers. Investigating food labelling providing health-related information or information relating to food or consumer issues. Completing electronic portfolio of evidence and experiences. Devising and producing 60-second

	provide information on a given health issue. Contributing to the planning and delivery of an activity for a younger year group or primary or nursery class. Completing electronic portfolio of evidence and experiences.	Completing electronic portfolio of evidence and experiences.	news segments linked to current food issues.
Investigation and research skills	Mind mapping prior knowledge. Surveying or online searches of supermarkets to establish the range of food products that promote health. Investigating ingredients and food products that address current dietary advice. Practical food activities linked to healthier methods of cooking. Completing electronic portfolio of evidence and experiences.	Mind mapping prior knowledge. Visiting food production or catering facilities to investigate the stages in the development of a new food product. Visiting local and national food events or shows which promote new food products. Watching video clips linked to food product development. Visiting speakers, such as environmental health officers or food hygiene and safety specialists who work in the food industry. Investigating the stages of food product development in relation to various food products using videos or social network sites. Practical food activities linked to	Mind mapping prior knowledge. Devising a new food product which meets the needs of, for example, a seasonal food market, a celebration or event or is influenced by another country. Costing exercises for new food product. Viewing and contributing to online discussion forums. Completing electronic portfolio of evidence and experiences, perhaps including relevant news headlines.

		devising/amending food products to take account of the functional properties of ingredients.	
		Practical food activities linked to devising food products for a specific market.	
		Carrying out sensory testing of food products.	
		Peer- and self-evaluation of developed food products.	
		Case studies or scenarios linked to food product development.	
		Using online research of supermarkets to establish the current range of food products.	
		Completing electronic portfolio of evidence and experiences.	
		See Appendix 2 for more information about research techniques and presenting results.	
Contemporary issues influencing food choice	Mind mapping prior knowledge. Completing electronic portfolio of evidence and experiences. Identifying current food issues such as factory farming; genetic	Mind mapping prior knowledge. Carrying out online research to establish the range of food products that take account of contemporary food issues. Case studies or scenarios of food	Researching and creating a slogan, poster or leaflet linked to a food issue. Using TeacherTube extracts or current newspaper articles to introduce topics and stimulate

modification (GM); food miles and organic farming.	product development linked to a contemporary food issue. Completing e-portfolio of evidence and experiences. See Appendix 2 for more information about research techniques and presenting results.	discussion. Completing e-portfolio of evidence and experiences.

Use technological skills to develop food products for a range of dietary and consumer needs	Mind mapping prior knowledge.	Mind mapping prior knowledge.	Mind mapping prior knowledge.
	Interviewing health professionals to identify key health issues.	Interviewing health professional to identify food products which address key problem areas or health issues	Conducting, collating and drawing conclusions from results of survey on factors affecting food choices.
	Case studies or scenarios linked to health issues or dietary needs.	Undertaking online research to establish current ranges of food products in the market.	Creating a 60-second sound bite for radio on given food issues.
	Conducting online research to establish current ranges of food products in the market.	Recipe searches to establish possible recipes that can be used or adapted for specific purposes.	Conducting cost comparison and sensory testing on product ranges such as Fair Trade or organic food products.
	Conducting sensory testing of foods to compare standard with healthy food options.	Conducting sensory testing of healthy food options.	Investigating through online research the range of food products available which address moral food issues, such as vegetarianism.
	Practical food activities linked to dietary needs of individuals and health issues.	Planning the development of new food products.	Investigating and evaluating the information on food packaging and food labels.
	Peer- and self-evaluation of developed food products.	Peer- and self-evaluation of developed food products.	Completing e-portfolio of evidence and experiences.
	Using ICT to complete nutritional analyses of proposed products and evaluate against DRVs.	Completing evaluations of food products in relation to specifications and identified needs.	
	Completing e-portfolio of evidence and experiences.	Using ICT to complete nutritional analysis of proposed products and evaluate against DRVs.	

		Completing e-portfolio of evidence and experiences.	
Applying understanding of the functional properties of ingredients in practical applications Applying safe and hygienic practices during food preparation	Mind mapping prior knowledge. Conducting sensory testing of healthy food options. Practical food activities linked to dietary needs of individuals or health issues should be carried out taking account of safe and hygienic working practices. Completing e-portfolio of evidence and experiences.	Mind mapping prior knowledge. Conducting practical investigations into the functional properties of ingredients in a range of foods. Investigating the functional properties of a range of ingredients used in commercial food products. Conducting a risk assessment of food product to be manufactured. Devising posters or leaflets to promote hygiene during food preparation. Case studies focused on the role of various consumer organisations in relation to food hygiene/safety. Completing electronic portfolio of evidence/experiences.	Mind mapping prior knowledge. Investigating 'food scares' related to ingredients or methods of food production. Completing case studies or scenarios linked to food hygiene and safety. Completing electronic portfolio of evidence and experiences.

When learning and teaching are integrated, the functional properties of food and the processes involved in product development could be used in the context of the dietary and nutritional needs of individuals for *Health and Food Technology: Food for Health* (Higher).Working safely and hygienically should permeate all practical food handling activities.

In order to encourage personalisation and choice, teachers/lecturers should where possible allow the choice of different case studies or scenarios, and encourage a range of methods of conducting research and ways of presenting results.

E-learning can play an important role in the design of, and learning and teaching approaches to the delivery of, the new National Courses 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.

Learners can benefit from a wide range of online resources to enable them to use ICT in presenting information for assessment purposes. They may develop a blog or contribute to a teacher/lecturer-led discussion forum which could be used for naturally occurring evidence.

Learners could also use blogs, intranets and VLEs to reflect on their learning and share their achievements with others. Those same means could then be used by teachers/lecturers to contribute to the authenticity of any investigations that learners complete outwith the teaching environment.
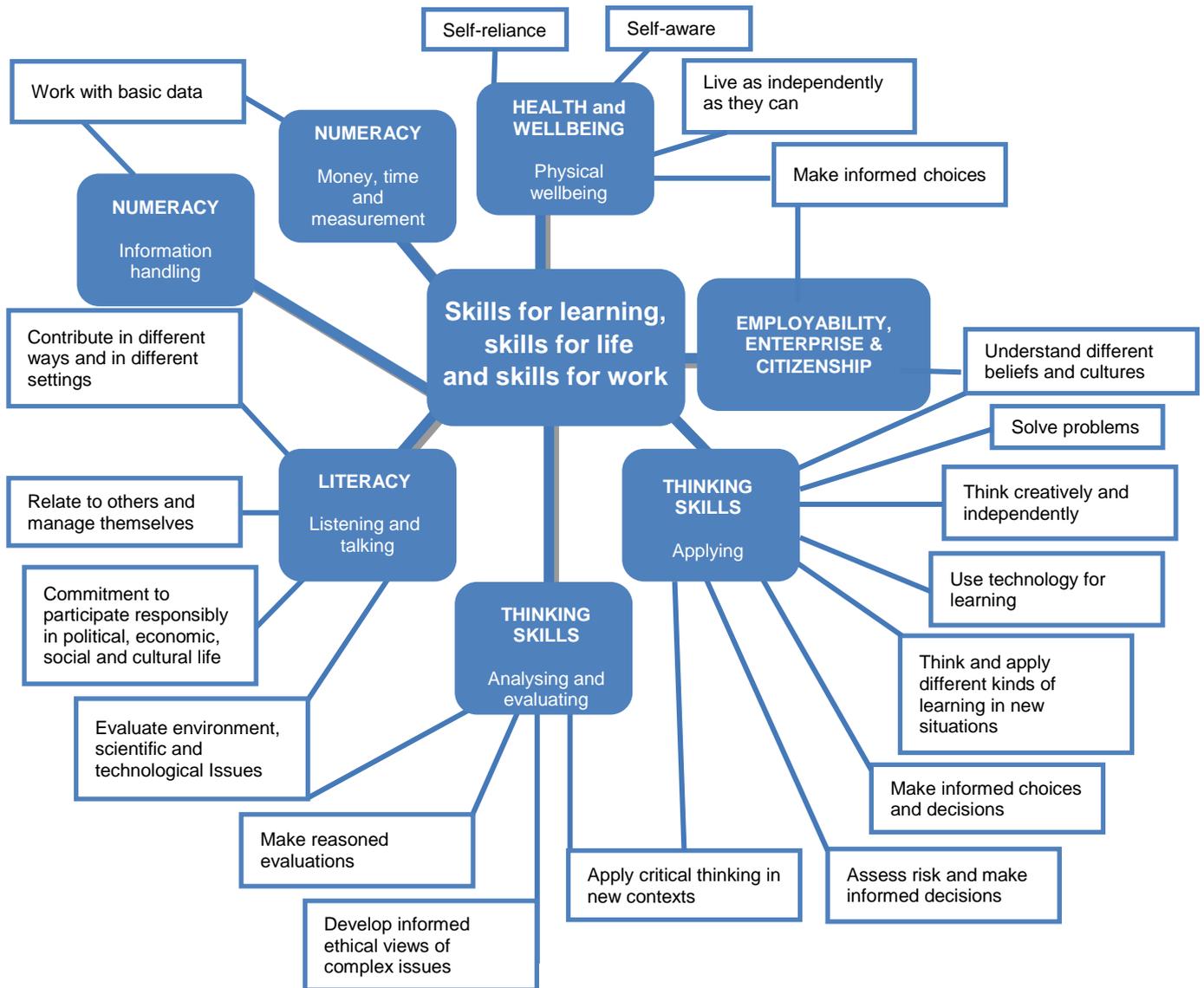
Developing skills for learning, skills for life and skills for work

Learners are expected to develop broad generic skills as an integral part of their learning experience. The *Course Specification* lists the skills for learning, skills for life and skills for work that learners should develop through this Course. These are based on SQA's *Skills Framework: Skills for Learning, Skills for Life and Skills for Work* and must be built into the Course where there are appropriate opportunities. The level of these skills will be appropriate to the level of the Course.

Learners should be aware of the generic skills they are learning. Below are some learning activities where these skills for learning, skills for life and skills for work may be developed concurrently with subject-specific skills. Many of the learning activities exemplified offer opportunities to develop more than one skill for learning, life and work.

The following diagram (Diagram 1) demonstrates how learning opportunities in this Course may contribute to the development of skills for learning, skills for life and skills for work.

Diagram 1

Diagram contents:

- Self-reliance
- Self-aware
- Work with basic data
- Live as independently as they can
- NUMERACY — Money, time and measurement
- HEALTH and WELLBEING — Physical wellbeing
- Make informed choices
- NUMERACY — Information handling
- Skills for learning, skills for life and skills for work
- Contribute in different ways and in different settings
- EMPLOYABILITY, ENTERPRISE & CITIZENSHIP
- Understand different beliefs and cultures
- Solve problems
- Relate to others and manage themselves
- LITERACY — Listening and talking
- THINKING SKILLS — Applying
- Think creatively and independently
- Commitment to participate responsibly in political, economic, social and cultural life
- Use technology for learning
- THINKING SKILLS — Analysing and evaluating
- Think and apply different kinds of learning in new situations
- Evaluate environment, scientific and technological Issues
- Make informed choices and decisions
- Make reasoned evaluations
- Apply critical thinking in new contexts
- Assess risk and make informed decisions
- Develop informed ethical views of complex issues

Below are some learning activities where these skills for learning. Skills for life and skills for work may be developed in this Course

Skills for learning, skills for life and skills for work	Suggested learning and teaching activities
1 Literacy 1.3 Listening and talking	Learners could discuss contemporary food issues in pairs, groups or as a class. Learners could give presentations on specific contemporary food issues or listen to visiting speakers from: ♦ trading standards departments ♦ environmental health departments ♦ international food trade
2 Numeracy 2.2 Money time and measurement 2.3 Information handling	Weighing and measuring ingredients for food preparation activities is a good way to develop skills in measurement. Costing exercises and planning food preparation activities within time limits may support development of money and time skills. Learners could work with data obtained from surveying shops and local food retailers or supermarkets, looking at availability, origin and popularity of produce. They could then analyse the data they have created to draw conclusions about particular food or consumer issues. Working with food labelling could also give learners experience of information handling.
3 Health and Wellbeing 3.3 Physical wellbeing	Learners will develop understanding the relationship between health, food and nutrition. They could also develop knowledge of organisations which inform and protect food consumers. This will support their ability to make informed food and health choices, contributing to physical wellbeing.
4 Employability, enterprise and citizenship 4.6 Citizenship	Learners will explore a range of contemporary food issues, encouraging them to consider the source and origin of the foods they consume and how their choices impact on wider society. This knowledge and understanding could support learners in making informed food and consumer choices.

5 Thinking skills 5.3 Applying 5.4 Analysing and evaluating	Learners will develop understanding of contemporary food issues and could apply this knowledge to make informed choices. They could use information on food labels to suggest suitable food choices for different groups of consumers. Learners could take part in problem-solving activities or work with case studies based on consumer needs and making choices to develop their analytical skills. Learners could work with basic data sets and other information to analyse and evaluate the impact of food choices on health.

Approaches to assessment

The publication *Building the Curriculum 5* sets out a framework for assessment which offers guidance on approaches to recognising achievement, profiling and reporting. A shared understanding of Assessment Standards and expectations is essential. Research in assessment suggests that learners learn best, and attainment improves, when learners:

♦ understand clearly what they are trying to learn, and what is expected of them
♦ are given feedback about the quality of their work, and what they can do to make it better
♦ are given advice about how to go about making improvements
♦ are fully involved in deciding what needs to be done next, and who can give them help if they need it

(Ref: http://scotland.gov.uk/Publications/2005/09/20105413/54156)

A holistic approach to assessment is recommended where possible. This will enrich the assessment process for the learner, avoid duplication of assessment and provide more time for learning and teaching. Additionally it will allow centres to manage the assessment process more efficiently.

Assessment practice tasks could be used as a valuable learning tool, not only to prepare learners for the mode of assessment required for Unit and Course assessment, but also to reinforce learning and inform remediation. Peer assessment is a good, active example of assessment as well as giving good experience of making judgements.

Whatever the assessment approach used, it is important that the approach to assessment encourages personalisation and choice. Any reporting back method can be done in a manner suitable for the learner – text based, audio/ electronic presentation or video evidence. There are many sources of assistive technology software available to support text-based tasks such as reading, researching or internet searching.

Preparation for Course assessment

Each Course has additional time which may be used at the discretion of the teacher or lecturer to enable learners to prepare for Course assessment. This time may be used near the start of the Course and at various points throughout the Course for consolidation and support. It may also be used for preparation for Unit assessment, and towards the end of the Course, for further integration, revision and preparation and/or gathering evidence for Course assessment.

Information given in the *Course Specification* and the *Course Assessment Specification* about the assessment of added value is mandatory.

The purpose of the Course assessment is to assess added value of the Course as well as confirming attainment in the Course and providing a grade. The added

value for the Course will address the key purposes and aims of the Course as defined in the Course Rationale.

In this Course assessment, added value will focus on the following:

♦ challenge — requiring greater depth or extension of knowledge and skills assessed in other Units
♦ application — requiring application of knowledge and/or skills in practical and theoretical contexts

The learner will be assessed through a combination of an assignment and a question paper. Together they will add challenge and application to the Course as the learner will integrate, extend and apply the skills, knowledge and understanding they have learned during the Course.

The assignment will give learners an opportunity to demonstrate the following knowledge, understanding and skills:

♦ applying a range of technological skills related to the production of a food product to meet specified health and/or consumer needs
♦ applying safe and hygienic practice during food preparation
♦ organisational and management skills
♦ investigative and research skills
♦ evaluation skills

The assignment can be introduced at any time during the Course. However, learners should be given sufficient time to develop skills, knowledge and understanding required before compiling assessment evidence.

This question paper will give learners an opportunity to demonstrate the following knowledge, understanding and skills from across the Units:

♦ analysing the relationship between health, food and nutrition
♦ understanding the practical application of the functional properties of food
♦ explaining a range of contemporary issues influencing food choice
♦ applying understanding the food product development process

The question paper will be set and marked annually by SQA.

More detailed information can be obtained in the *Course Assessment Specification.*

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

Combining assessment across Units

Teachers and lecturers could negotiate with learners to agree on food issues or food product development themes chosen to combine assessment across Units.

Any pattern of integrated assessment can mirror that for integrated learning and teaching opportunities illustrated in the 'Approaches to learning and teaching' section above.

Where the Units are offered on a stand-alone basis, teachers and lecturers will have more flexibility in developing assessment approaches because there will be no requirement to relate these to the Course assessment. When, on the other hand, the Units are delivered as part of the Course, their assessment can be combined. The pattern of such integrated assessment can mirror that for integrated delivery illustrated in the 'Approaches to learning and teaching' section above.

Where possible, using an integrated approach to assessment is recommended because it will:

♦ enrich the assessment process for both learners and teachers/lecturers by bringing together elements of different Units
♦ make more sense to learners and avoid duplication of assessment
♦ ensure greater rigour in assessment
♦ allow for evidence for both Units to be drawn from a range of activities, thus making it easier to cover aspects which may not occur in a one-off assessment
♦ use assessment opportunities efficiently and reduce over-assessment
♦ be cost-effective

An integrated approach to learning and teaching across the component Units of Higher Health and Food Technology Course may be possible. Potential links between Outcomes of Units may be established, which will provide opportunities for learners to develop skills and use knowledge within one activity. A holistic approach to assessment will enrich the assessment process for the learner, avoid duplication of tasks and thus allow more emphasis on learning and teaching. Care must be taken to ensure that combined assessments provide appropriate evidence for all Outcomes which they claim to assess.

Integrating assessment will also minimise repetition, allow more time for learning and allow centres to manage the assessment process more efficiently. When integrating assessment across Units, teachers/lecturers could use e-assessment whenever possible.

Portfolios, electronic or written, diaries and recording sheets may be updated by learners and may enable learners to select relevant evidence to meet Assessment Standards and encourage reflection, personalisation and choice.

Assessment evidence for individual learners should be retained for individual Outcomes as well as Units and Course assessments.

Equality and inclusion

This Course has been designed to ensure that there are no unnecessary barriers to learning or assessment. The Course takes into account the needs of all learners in that it recognises that young people achieve in different ways and at a different pace. Neither the mode nor the period of delivery is prescribed, and centres will be free to use a range of teaching methods and to draw on a range of mechanisms supporting delivery. Equality and inclusion will also be promoted by the use of a range of activities and assessment techniques which suit particular learning styles, learners' needs and prior experiences.

The following guidance should ensure that any issues relating to equality and inclusion in a health and food technology context are addressed:

♦ Centres must take into account the needs of all learners who undertake the Course, perhaps by using meat-free, vegan, high-protein or low-fat food products.
♦ There should be no gender, social, cultural or physical barrier for any learner embarking on studying this Course and its individual Units.

Teachers/lecturers should consider the needs and characteristics of their learners when selecting food preparation or prototype development tasks, cooking methods, ingredients and recipe selection. The selection of a suitable recipe or prototype may mitigate any adverse effects on learners.

Learners could also access a wide range of food preparation equipment such as food processors or blenders, or cooking equipment such as microwaves, to allow learners to make suitable food products to meet the Outcomes. In addition, learners could make use of pre-prepared ingredients, such as chopped onions or diced carrots, or prepared components, such as sauces, to assemble food products.

The following are reasonable responses to adapting assessments:

♦ additional time allocation
♦ scribe or reader
♦ audio evidence
♦ classroom assistant available to assist with food preparation skills
♦ assistive technology
♦ adapted equipment (suction bowls, motorised can openers, food processors)

There are many sources of assistive technology software available to ease text-based tasks, such as reading text or internet searching.

Increased flexibility in relation to how centres gather evidence should allow for more freedom for centres to best meet the needs of their specific learners — thus, for example, oral evidence for a learner who is unable to write responses is acceptable, providing evidence is retained for verification purposes.

Alternative approaches to Unit assessment to take account of the specific needs of learners can be used. However, the centre must satisfy SQA that the integrity of the assessment is maintained and where the alternative approach to assessment will in fact generate the necessary evidence of achievement.

It is recognised that centres have their own duties under equality and other legislation and policy initiatives. The guidance given in these Course Support Notes is designed to sit alongside these duties but is specific to the delivery and assessment of the Course.

It is important that centres are aware of understand SQA's assessment arrangements for disabled learners, and those with additional support needs, when making requests for adjustments to published assessment arrangements. Centres will find more guidance on this in the assessment arrangements section of SQA's website: www.sqa.org.uk/sqa//14977.html.

Appendix 1: Reference documents

The following reference documents will provide useful information and background.

♦ Assessment Arrangements (for disabled candidates and/or those with additional support needs) — various publications are available on SQA's website at: www.sqa.org.uk/sqa//14977.html.
♦ Building the Curriculum 4: Skills for learning, skills for life and skills for work
♦ Building the Curriculum 5: A framework for assessment
♦ Course Specification
♦ Design Principles for National Courses
♦ *Guide to Assessment*
♦ Principles and practice papers for curriculum areas
♦ *SCQF Handbook: User Guide* and SCQF level descriptors
♦ *SQA Skills Framework: Skills for Learning, Skills for Life and Skills for Work*
♦ *Skills for Learning, Skills for Life and Skills for Work: Using the Curriculum Tool*
♦ *Coursework Authenticity: A Guide for Teachers and Lecturers*

Appendix 2: Suggested resources

Name of organisation/source	Possible resources available
Food Standards Agency	Food hygiene and safety information.
British Nutrition Foundation	Information on nutrition, healthy eating, lifestyles, dietary diseases, nutritional analysis programme, sensory testing, podcasts, cooking videos, downloadable resources and more.
BBC Bitesize	Information on nutritional properties, functional properties, food product development, social and environmental issues and more.

Appendix 3: Guidance on research techniques

This grid provides an indication of the type of research technique and the complexity of research appropriate for learners at Higher level. The list is for guidance only and is not definitive. Learners may choose to use other methods of research. It is anticipated that learners may choose to use these techniques for the purposes of investigation or testing.

Research technique	Guidance on carrying out the research to allow sufficient relevant data to be collected	Guidance on presenting results
Questionnaire	- include a minimum of 20 respondents - choose respondents who are appropriate to the focus of the research - ask 5–8 pertinent questions	- identify the target group of respondents - display all questions and all possible answers - display all responses including nil responses - consider displaying results in table format as this can make the data easier to read
Survey	- use more than one source of information - use sources of information that will provide data relevant to the focus of the research - sources could include: supermarket websites, books, magazines/periodicals, trade publications, retailers, or a mixture of these	- identify the sources of information - identify the information gathered from each source - display the information gathered under appropriate headings
Interviews	- use an interviewee whose expertise is appropriate to the focus of the research - ask 5–8 pertinent questions construct questions to allow the interviewee to provide extended answers	- identify the position/job title of the interviewee - display all questions and the information gathered from the responses
Internet/Literary search	- use more than one source of information - use sources of information that will provide data relevant to the focus of the research - information could be gathered from a mixture of literary/web-based sources - select the relevant information from each source	- give details of the sources of information - identify the information gathered from each source - display the relevant information gathered under appropriate headings - include graphics where relevant

Costing	♦ use current cost data ♦ include the cost of all ingredients ♦ include 'like for like' data in comparative costing	♦ include sources of cost data ♦ include details of quantities and/or unit costs where appropriate ♦ display the information gathered under appropriate headings
Nutritional Analysis	♦ include all nutrients relevant to the focus of the investigation ♦ include all ingredients in the food product	♦ include the source of the data ♦ display the raw data gathered under appropriate headings ♦ include totals for each nutrient in the food product
Sensory Testing	♦ use testers whose expertise is appropriate to the focus of the research ♦ use a minimum of five testers ♦ ask for 5–8 responses based on the food product ♦ ask appropriate questions to elicit potential improvements/modifications to the food product	♦ include details of all potential solutions ♦ display all questions and all possible answers ♦ display all responses including nil responses ♦ display the key used for the testing ♦ consider displaying results in table format as this can make the data easier to read

Administrative information

Published: May 2016 (version 1.2)

History of changes to Course Support Notes

Version	Description of change	Authorised by	Date
1.1	Amended to provide additional support: ♦ General guidance on the Course ♦ Approaches to learning and teaching ♦ Approaches to assessment New information added: ♦ Appendix 2: Suggested resources New additions to content: ♦ Appendix 3: Guidance on research techniques	Qualifications Manager	May 2015
1.2	Appendix 3: Guidance on research techniques — information about carrying out surveys revised.	Qualifications Manager	May 2016

Unit Support Notes — Health and Food Technology: Contemporary Food Issues (Higher)

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Please refer to the note of changes at the end of this document for details of changes from previous version (where applicable).

Introduction

These support notes are not mandatory. They provide advice and guidance to support the delivery of the *Health and Food Technology: Contemporary Food Issues* (Higher) Unit. They are intended for teachers and lecturers who are delivering the Unit. They should be read in conjunction with:

♦ Health and Food Technology: Contemporary Food Issues (Higher) *Unit Specification*
♦ Higher Health and Food Technology *Course Specification*
♦ Higher Health and Food Technology *Course Assessment Specification*
♦ Higher Health and Food Technology *Course Support Notes*
♦ the appropriate Unit assessment support packs

If the *Unit Support Notes* have been developed for a Unit which is not part of a Course, then it is only necessary to read them in conjunction with the *Unit Specification*.

General guidance on the Unit

Aims

This Unit is a mandatory Unit of the Higher Health and Food Technology Course and is also available as a free-standing Unit and is designed to meet the needs of a broad range of learners who may choose to study it.

In this Unit, learners will investigate a range of contemporary food issues. They will analyse how these issues influence decisions taken by consumers when making food choices. They will communicate their findings in an appropriate way.

Learners who successfully complete this Unit will be able to demonstrate achievement of the following Outcome:

1. Investigate contemporary food issues

Progression into this Unit

Entry into 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:

♦ Health and Food Technology Course (National 5) or relevant component Units

An interest in food, nutrition, consumer issues or related work experience in the health or food industries will assist successful progression through this Unit. Centres wishing to establish the suitability of learners without prior qualifications may benefit from carrying out a diagnostic review of prior life and work experiences.

Skills, knowledge and understanding covered in the Unit

Information about skills, knowledge and understanding is given in the Higher Health and Food Technology Course Support Notes.

If this Unit is being delivered on a free-standing basis, teachers and lecturers are free to select the skills, knowledge, understanding and contexts which are most appropriate for delivery in their centres.

Examples of suitable contexts in which the skills, knowledge and understanding for this Unit could be developed are detailed in the sections entitled: 'Approaches to Learning and Teaching' and 'Approaches to Assessment'.

Progression from this Unit

This Course or its components may provide progression to:

♦ Advanced Higher Health and Food Technology or relevant component Units
♦ National Certificate Courses at SCQF level 6
♦ Further/Higher education
♦ Employment/training opportunities

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 the new National Courses and 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.

Where resources are available, use may be made of relevant websites to allow learners to investigate topics and undertake work on presenting their learning.

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

Outcome: Investigate contemporary food issues
Learners could use tools such as the internet, textbooks or surveys to investigate a range of contemporary food issues. These might be:

♦ Fair Trade
♦ Genetic modification (GM)
♦ Food labelling
♦ Food miles
♦ Seasonality

This list is not exhaustive. There are other issues which may be explored.

Outcome	Possible learning and teaching approaches
Investigate contemporary food issues	Learners could be introduced to a range of investigate techniques such as surveys, interviews, questionnaires, literature searches or any other appropriate technique. They could be given the opportunity to use these techniques to investigate some aspects of contemporary food issues. Learners could consider the strengths and weaknesses of these techniques in obtaining information and suggest proposals for further investigative work. Contemporary food issues could include: ♦ genetic modification (GM) ♦ Fair Trade ♦ organic produce ♦ farmers' markets ♦ allotments/'Grow Your Own' initiatives ♦ food labelling ♦ food miles ♦ seasonality ♦ packaging ♦ food waste ♦ food aid/world hunger Learners could work in groups to prepare a project-based piece of work illustrating a variety of contemporary food issues and their impact on consumer food choices. Presentation methods such as PowerPoint presentations, Prezi presentations, talks, video or story boards could be used to illustrate and share their findings. Learners could be encouraged to consider purpose and audience when presenting or communicating findings. Learners could look at food products associated with the issues explored and discuss, in groups, how these products address particular issues.

	Learners could investigate the types of organisations that inform and protect consumers about food issues. Learners could work in groups or pairs to investigate: ♦ the type of information the organisations provide to help consumers make informed choices ♦ the protection they can give consumers when buying food Learners could then share their findings, using a variety of formats.

Developing skills for learning, skills for life and skills for work

Information about developing skills for learning, skills for life and skills for work in this Unit is given in the relevant *Course Support Notes*.

Approaches to assessment

Assessment should be carried out under supervision and it is recommended that Assessment Standards are combined so that the learner generates evidence for the Unit as a whole to minimise repetition and allow more time for learning.

Learners should have access to appropriate resources during assessment.

Assessors may give learners advice on the practicability of their choice of research technique and method of presentation of findings.

Outcomes and Assessment Standards cannot be sampled.

Learners who fail to achieve all of the Assessment Standards within the Outcomes only need to be re-assessed on the Assessment Standards they have not achieved.

Exemplification of assessment is provided in the relevant Unit assessment support packs.

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
Investigate contemporary food issues	Learners may be supported in their selection of an issue to investigate. Teachers/lecturers may give guidance on appropriate issues as regards availability of sources or resources or the practicability of the potential investigation. Teachers/lecturers may also wish to consider the needs of their learners, in terms of equality and inclusion, when giving guidance on possible issues to investigate.
	Learners could make use of news stories/magazine articles/TV documentaries/TV programmes to identify issues.
	Learners could use a range of investigative techniques to gather information about the issue, eg:
	♦ interview with an appropriate expert ♦ questionnaire/survey the target group ♦ literary research (using books, magazines, periodicals/internet-based research ♦ visit to local food producers/suppliers ♦ visits to local businesses
	Learners may wish to collate information obtained from their investigation in a folio. Findings from questionnaires, surveys or interviews could be recorded and conclusions drawn. Learners could also present information about current food products available, which relate to the issue investigated. They may also provide some comments on the success of their investigation and the choice of investigative techniques.

Combining assessment within Units

All Units are internally assessed against the requirements shown in the *Unit Specification*. Each Unit can be assessed on an individual Unit-by-Unit basis or via the use of a combined assessment.

Potential links between the Assessment Standards of this Unit may be established, which will provide opportunities for learners to demonstrate skills and use knowledge within one assessment activity. A holistic approach to assessment will enrich the assessment process for the learner, avoid duplication of tasks and thus allow more emphasis on learning and teaching. Care must be taken to ensure that combined assessments provide appropriate evidence for all Outcomes which they claim to assess.

Centres may opt to assess naturally occurring activities, but they must still provide evidence, eg video footage or observational checklist.

Evidence should be able to be generated and held in a variety of formats that best suit the needs of the learner and centre. Appropriate ICT systems could be used as a mechanism for recording attainment, in particular the elements of the Unit that lend themselves to written work. Assessors must choose an assessment format which takes into account the needs of all learners and implement the assessment at an appropriate stage in the Unit.

Equality and inclusion

Where appropriate, arrangements should be made to ensure that there will be no artificial barriers to learning. The nature of learners' needs should be taken into account when planning learning activities and to provide alternative provision or support where necessary. This will ensure the inclusion of all learners and support them in the learning process.

Increased flexibility in relation to how centres gather evidence should allow for more freedom for centres to best meet the needs of their specific learners — thus, for example, oral evidence for a learner who is unable to write responses is acceptable, providing evidence is retained for verification purposes.

The following are reasonable responses to adapting assessments:

♦ additional time allocation
♦ scribe or reader
♦ audio evidence
♦ assistive technology
♦ adapted equipment

There is more advice and guidance about these issues in the 'Equality and inclusion' section in the Higher Health and Food Technology *Course Support Notes.*

It is recognised that centres have their own duties under equality and other legislation and policy initiatives. The guidance given in these *Unit Support Notes* is designed to sit alongside these duties but is specific to the delivery and assessment of the Unit.

Alternative approaches to Unit assessment to take account of the specific needs of learners can be used. However, the centre must be satisfied that the integrity of the assessment is maintained and that the alternative approach to assessment will, in fact, generate the necessary evidence of achievement.

Appendix 1: Reference documents

The following reference documents will provide useful information and background.

♦ Assessment Arrangements (for disabled candidates and/or those with additional support needs) — various publications are available on SQA's website at: www.sqa.org.uk/sqa//14977.html.
♦ Building the Curriculum 3: A framework for learning and teaching
♦ Building the Curriculum 4: Skills for learning, skills for life and skills for work
♦ Building the Curriculum 5: A framework for assessment
♦ Course Specification
♦ Design Principles for National Courses
♦ *Guide to Assessment*
♦ Principles and practice papers for curriculum areas
♦ *SCQF Handbook: User Guide* and SCQF level descriptors
♦ *SQA Skills Framework: Skills for Learning, Skills for Life and Skills for Work*
♦ *Skills for Learning, Skills for Life and Skills for Work: Using the Curriculum Tool*
♦ *Coursework Authenticity: A Guide for Teachers and Lecturers*
♦ *Research Report 4 — Less is More: Good Practice in Reducing Assessment Time*
♦ *SQA Guidelines on e-assessment for Schools*
♦ *SQA Guidelines on Online Assessment for Further Education*
♦ SQA e-assessment web page

Administrative information

Published: May 2015 (version 1.1)

History of changes to Unit Support Notes

Version	Description of change	Authorised by	Date
1.1	Amended to provide additional support: ♦ Approaches to learning and teaching ♦ Approaches to assessment	Qualifications Manager	May 2015

Unit Support Notes — Health and Food Technology: Food for Health (Higher)

Introduction

These support notes are not mandatory. They provide advice and guidance on approaches to delivering and assessing the *Health and Food Technology: Food for Health* (Higher) Unit. They are intended for teachers and lecturers who are delivering this Unit. They should be read in conjunction with the:

♦ Health and Food Technology: Food for Health (Higher) *Unit Specification*
♦ Higher Health and Food Technology *Course Specification*
♦ Higher Health and Food Technology *Course Assessment Specification*
♦ Higher Health and Food Technology *Course Support Notes*

If the *Unit Support Notes* have been developed for a Unit which is not part of a Course, then it is only necessary to read them in conjunction with the *Unit Specification*.

General guidance on the Unit

Aims

This Unit is a mandatory Unit of the Higher Health and Food Technology Course and is also available as a free-standing Unit, and is designed to meet the needs of a broad range of learners who may choose to study it.

The general aim of this Unit is to develop learners' knowledge, understanding and skills to enable them to analyse the relationship between health, food and nutrition. Learners will also analyse dietary needs for individuals at various stages of life and explain current dietary advice. Through practical activities, the learner will produce and evaluate food products which meet individual needs.

Learners who successfully complete this Unit will be able to demonstrate achievement of the following Outcomes:

1   Analysing the relationships between health, food and nutrition
2   Make and evaluate a food product to meet dietary and health needs

Progression into this Unit

Entry into 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:

♦   Health and Food Technology (National 5) Course or relevant component Units

An interest in food, health and nutrition may assist successful progression through this Unit. Centres wishing to establish the suitability of learners without prior qualifications may benefit from carrying out a diagnostic review of prior life and work experiences.

Skills, knowledge and understanding covered in the Unit

Information about skills, knowledge and understanding is given in the Health and Food Technology (Higher) Course Support Notes.

If this Unit is being delivered on a free-standing basis, teachers and lecturers are free to select the skills, knowledge, understanding and contexts which are most appropriate for delivery in their centres.

Examples of suitable contexts in which the skills, knowledge and understanding for this Unit could be developed are detailed in the sections entitled: 'Approaches to Learning and Teaching' and 'Approaches to Assessment'.

Progression from this Unit

Progression pathways from this Unit might include:

♦ Advanced Higher Health and Food Technology Course or relevant component Units
♦ National Certificate Courses at SCQF level 6
♦ further education
♦ higher education
♦ employment opportunities

The practical skills within this Unit have applications to other subject areas as well as life and work.

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 the new National Courses and 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 approaches to learning and teaching activities are given in the table which follows. Please note that these are examples only. The learning and teaching for this Unit may be approached in different ways.

Outcome	Possible learning and teaching approaches
Analyse the relationships between health, food and nutrition	For this Outcome, learners could mind-map their prior knowledge of a balanced and varied diet. This could be done individually, in small groups or as a class activity. Learners could also conduct a straightforward analysis of a day's food intake for a specified individual. They could then suggest adaptations or improvements to ensure the individual consumes the recommended daily intake of particular food types and nutrients. Learners could make use of current news stories or video clips to explore available dietary advice. Learners could be encouraged to consider adaptations to existing recipes to meet dietary and health recommendations. The concept of the balanced and varied diet could link to the topic of current dietary advice by allowing learners to consider how they could adapt the individual's daily food intake to take account of identified current dietary advice. When considering the sources and functions of nutrients, learners could complete a three-way matching activity which links nutrients, their function and food sources. Learners could consolidate their knowledge and understanding by producing a range of foods and food products which are a major source of each key nutrient, such as products rich in iron, calcium or protein. Learners could identify the sources of key nutrients in each product and explain the function of each nutrient identified. Learners could work in small groups to prepare and deliver a presentation on a diet-related condition or disease, discussing its cause(s), symptoms and long-term effects on health. Learners could also produce information leaflets or a short TV advert. Learners could take part in practical activities to explore the kinds of food products which address a range of conditions or diseases. Learners could consider the effects of different ingredients and cooking methods on the finished food products. Learners could be provided with information on the nutritional content of a day's meals for an identified individual and the relevant DRVs for that individual. They could then carry out an analysis of individual's diet in relation to the DRVs and present their findings.

Make and evaluate a food product to meet dietary and health needs	Learning and teaching for this Outcome gives good opportunities for teachers/lecturers to set up learning activities which enable learners to develop and practice practical and problem-solving skills and extend their knowledge base. Practical work should allow learners to develop and demonstrate related knowledge and understanding.
	When choosing food products to make and evaluate, learners could be given opportunities to use their creative skills and build on particular strengths. This enhances opportunities for personalisation and choice and inclusion. This could help put the learning into a local and familiar context for learners.
	Where possible, it is useful to provide opportunities for learning outside the classroom. For example, visits to a local nursery or care home or to contribute to a suitable school event.
	Learners should be encouraged to reflect on their strengths and areas for improvement following feedback which could include peer assessment.
	Learners could be presented with scenarios about particular individuals or group of individuals. Centres have the opportunity to develop specific case studies that take account of the needs of the centre and the local and wider community. Learners could investigate the key issues in the case study, perhaps by speaking to local experts or taking part in class discussion. Learners could work in groups to investigate the needs of a particular individual or group then share and present their findings to the rest of the class.
	When selecting suitable ingredients and cooking methods, learners could be presented with a range and asked to consider the suitability of the available options. Learners should be encouraged to consider and implement safe and hygienic practices when preparing and cooking food products.
	Learners could consider how well certain food products meet specified needs. This could be done through an exploration of existing or commercially-available food products. Learners could rate a range of products in terms of suitability for a particular scenario and suggest adaptations to improve a product's rating.

Developing skills for learning, skills for life and skills for work

Information about developing skills for learning, skills for life and skills for work in this Unit is given in the relevant *Course Support Notes*.

Approaches to assessment

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

Approaches to the assessment of Units when they form part of a Course may differ from approaches to assessing the same Unit when delivered free-standing. Where Units are delivered on a stand-alone basis, teachers/lecturers will have more flexibility to develop approaches to delivering and assessing Units which are not related to Course assessment.

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
Analysing the relationships between health, food and nutrition	Approaches to assessment and evidence gathering could take a variety of forms to meet the needs of a range of learners and centres. For this Outcome, learners may provide evidence in a range of ways, including recorded oral responses, written responses or electronically, perhaps in a blog or wiki. Learners could investigate the benefits to health of a balanced and varied diet for a target group, eg: ♦ primary school children ♦ a youth group ♦ clients at a health centre ♦ clients at a sports centre Learners could then individually present the results of their research to the rest of the class. Candidates could present information about current dietary advice for a particular scenario, eg: ♦ a school canteen ♦ a supermarket ♦ a nursery Candidates could design leaflets, posters or electronic presentations to the messages in the current dietary advice. Candidates could analyse a day's diet of a specified individual, providing information about the impact on health of the diet in relation to the DRVs for the individual. Evidence for this Outcome could also be gathered through the use of a short question paper.

Outcome	Assessment approaches
Make and evaluate food products to meet dietary and health needs	Evidence for this Outcome could be gathered in a range of ways, including video footage, written reports, completion of pro-formas, observational checklists or photographic evidence.
	Teachers/lecturers could provide a scenario for learners to work to for this Outcome. This would allow learners to complete a portfolio of evidence covering the Assessment Standards. They could identify the key points from the case study or scenario; show evidence of their analysis of the individual or group's dietary and health needs (using Dietary Reference Values); select an appropriate food product to make which addresses these needs; identify and justify their choice of ingredients and cooking methods; and evaluate how well their product(s) meets the identified needs. The product should be made using safe and hygienic practices.

Combining assessment within Units

All Units are internally assessed against the requirements shown in the *Unit Specification.* Each Unit can be assessed on an individual Unit-by-Unit basis or via the use of a combined assessment.

Potential links between the Outcomes of this Unit may be established, which will provide opportunities for learners to demonstrate skills and use knowledge within one assessment activity. A holistic approach to assessment will enrich the assessment process for the learner, avoid duplication of tasks and thus allow more emphasis on learning and teaching. Care must be taken to ensure that combined assessments provide appropriate evidence for all Outcomes which they claim to assess.

Centres may opt to assess naturally occurring activities, but they must still provide evidence, eg video footage or observational checklist.

Evidence should be able to be generated and held in a variety of formats that best suit the needs of the learner and centre. Appropriate ICT systems could be used as a mechanism for recording attainment, in particular the elements of the Course that lend themselves to written work. Assessors must choose an assessment format which takes into account the needs of all learners and implement the assessment at an appropriate stage in the Unit.

Equality and inclusion

Where appropriate, arrangements should be made to ensure that there will be no artificial barriers to learning. The nature of learners' needs should be taken into account when planning learning activities and to provide alternative provision or support where necessary. This will ensure the inclusion of all learners and support them in the learning process.

Increased flexibility in relation to how centres gather evidence should allow for more freedom for centres to best meet the needs of their specific learners — thus, for example, oral evidence for a learner who is unable to write responses is acceptable, providing evidence is retained for verification purposes.

The following are reasonable responses to adapting assessments:

♦ additional time allocation
♦ scribe or reader
♦ audio evidence
♦ assistive technology
♦ adapted equipment

Learners could access a wide range of food preparation equipment, such as food processors or blenders, or cooking equipment such as microwaves, to allow learners to produce suitable products to meet the Outcomes. In addition, learners could make use of pre-prepared ingredients such as chopped onions or diced carrots, or prepared components such as sauces, to assemble food products.

There is more advice and guidance about these issues in the 'Equality and inclusion' section in the Higher Health and Food Technology *Course Support Notes.*

It is recognised that centres have their own duties under equality and other legislation and policy initiatives. The guidance given in these *Unit Support Notes* is designed to sit alongside these duties but is specific to the delivery and assessment of the Unit.

Alternative approaches to Unit assessment to take account of the specific needs of learners can be used. However, the centre must be satisfied that the integrity of the assessment is maintained and that the alternative approach to assessment will, in fact, generate the necessary evidence of achievement.

Appendix 1: Reference documents

The following reference documents will provide useful information and background.

♦ Assessment Arrangements (for disabled candidates and/or those with additional support needs) — various publications are available on SQA's website at: www.sqa.org.uk/sqa//14977.html.
♦ Building the Curriculum 4: Skills for learning, skills for life and skills for work
♦ Building the Curriculum 5: A framework for assessment
♦ Course Specification
♦ Design Principles for National Courses
♦ *Guide to Assessment*
♦ Principles and practice papers for curriculum areas
♦ *SCQF Handbook: User Guide* and SCQF level descriptors
♦ *SQA Skills Framework: Skills for Learning, Skills for Life and Skills for Work*
♦ *Skills for Learning, Skills for Life and Skills for Work: Using the Curriculum Tool*
♦ *Coursework Authenticity: A Guide for Teachers and Lecturers*
♦ *Research Report 4 — Less is More: Good Practice in Reducing Assessment Time*
♦ *SQA Guidelines on e-assessment for Schools*
♦ *SQA Guidelines on Online Assessment for Further Education*
♦ SQA e-assessment web page

Administrative information

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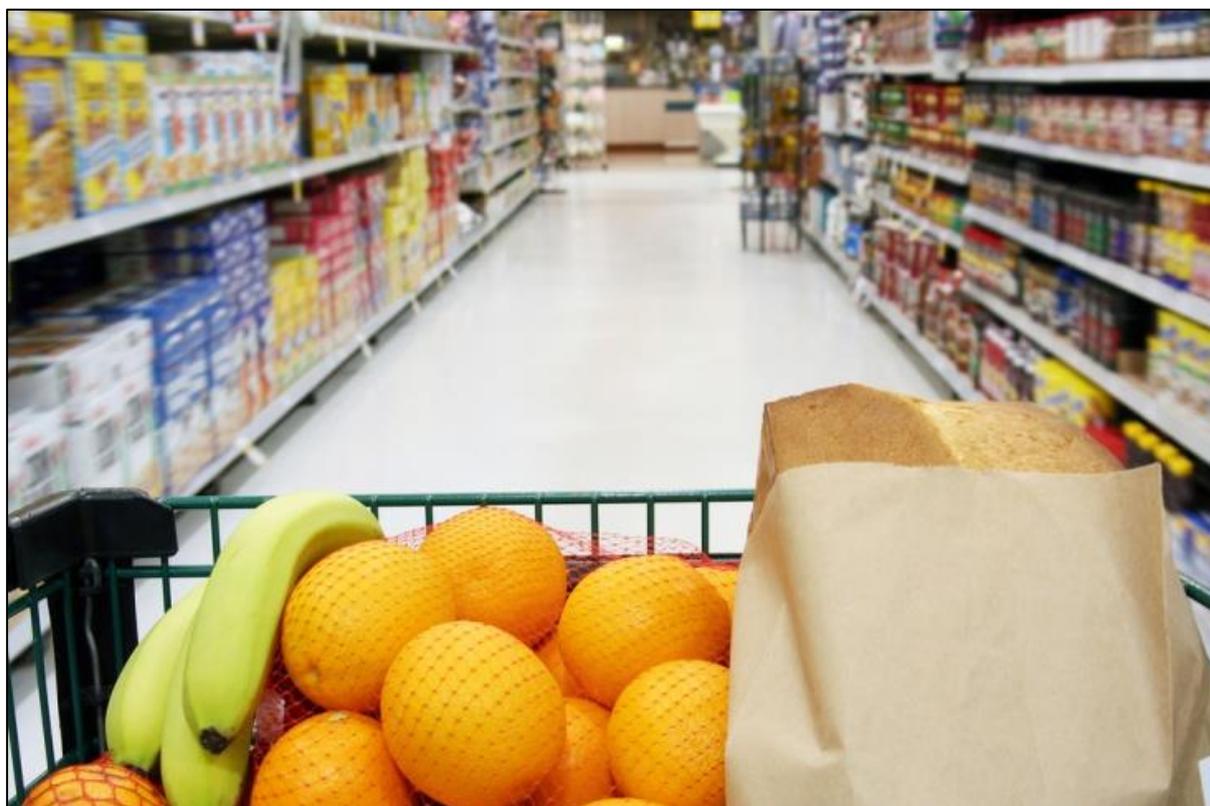
History of changes to Unit Support Notes

Version	Description of change	Authorised by	Date
1.1	Amended to provide additional support: ♦ Approaches to learning and teaching ♦ Approaches to assessment	Qualifications Manager	May 2015

Unit Support Notes — Health and Food Technology: Food Product Development (Higher)

Introduction

These support notes provide advice and guidance to support the delivery of the *Health and Food Technology: Food Product Development* (Higher) Unit. They are intended for teachers and lecturers who are delivering this Unit. They should be read in conjunction with:

♦ Health and Food Technology: Food Product Development (Higher) *Unit Specification*
♦ Higher Health and Food Technology *Course Specification*
♦ Higher Health and Food Technology *Course Assessment Specification*
♦ Higher Health and Food Technology *Course Support Notes*
♦ the appropriate Unit assessment support packs

If the *Unit Support Notes* have been developed for a Unit which is not part of a Course, then it is only necessary to read them in conjunction with the *Unit Specification*.

General guidance on the Unit

Aims

This Unit is a mandatory Unit of the Higher Health and Food Technology Course and is also available as a free-standing Unit and is designed to meet the needs of a broad range of learners who may choose to study it.

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 health or 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

Progression into this Unit

Entry into 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:

♦   Health and Food Technology (National 5) Course or relevant component Units

An interest in food, nutrition, health and wellbeing, as well as prior experience of developing practical cookery skills, would be an advantage. Centres wishing to establish the suitability of learners without prior qualifications may benefit from carrying out a diagnostic review of prior life and work experiences.

Skills, knowledge and understanding covered in the Unit

Information about skills, knowledge and understanding is given in the Health and Food Technology (Higher) Course Support Notes.

If this Unit is being delivered on a free-standing basis, teachers and lecturers are free to select the skills, knowledge, understanding and contexts which are most appropriate for delivery in their centres.

Examples of suitable contexts in which the skills, knowledge and understanding for this Unit could be developed are detailed in the sections entitled: 'Approaches to Learning and Teaching' and 'Approaches to Assessment'.

Progression from this Unit

Achievement in this Unit could lead to progression to:

♦ Advanced Higher Health and Food Technology Course or relevant component Units
♦ further education
♦ higher education
♦ employment opportunities

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 the new National Courses and 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 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.

Developing skills for learning, skills for life and skills for work

Information about developing skills for learning, skills for life and skills for work in this Unit is given in the relevant *Course Support Notes*.

Approaches to assessment

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

Approaches to the assessment of Units when they form part of a Course may differ from approaches to assessing the same Unit when delivered free-standing. Where Units are delivered on a stand-alone basis, teachers/lecturers will have more flexibility to develop approaches to delivering and assessing Units which are not related to Course assessment.

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. 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

All Units are internally assessed against the requirements shown in the *Unit Specification*. Each Unit can be assessed on an individual Unit-by-Unit basis or via the use of a combined assessment. At Higher level, the Unit will be assessed on a pass/fail basis.

Potential links between Outcomes of Units may be established, which will provide opportunities for candidates to demonstrate skills and use knowledge within one assessment activity. A holistic approach to assessment will enrich the assessment process for the learner, avoid duplication of tasks and thus allow more emphasis on learning and teaching. Care must be taken to ensure that combined assessments provide appropriate evidence for all Outcomes which they claim to assess.

Centres may opt to assess naturally occurring activities, but they must still provide evidence, eg video footage or observational checklist.

Equality and inclusion

Where appropriate, arrangements should be made to ensure that there will be no artificial barriers to learning. The nature of learners' needs should be taken into account when planning learning activities and to provide alternative provision or support where necessary. This will ensure the inclusion of all learners and support them in the learning process.

Increased flexibility in relation to how centres gather evidence should allow for more freedom for centres to best meet the needs of their specific learners — thus, for example, oral evidence for a learner who is unable to write responses is acceptable, providing evidence is retained for verification purposes.

The following are reasonable responses to adapting assessments:

♦ additional time allocation
♦ scribe or reader
♦ audio evidence
♦ assistive technology
♦ adapted equipment

Learners could access a wide range of food preparation equipment, such as food processors or blenders, or cooking equipment such as microwaves, to allow learners to produce suitable products to meet the Outcomes. In addition, learners could make use of pre-prepared ingredients such as chopped onions or diced carrots, or prepared components such as sauces, to assemble food products.

There is more advice and guidance about these issues in the 'Equality and inclusion' section in the Higher Health and Food Technology *Course Support Notes.*

It is recognised that centres have their own duties under equality and other legislation and policy initiatives. The guidance given in these *Unit Support Notes* is designed to sit alongside these duties but is specific to the delivery and assessment of the Unit.

Alternative approaches to Unit assessment to take account of the specific needs of learners can be used. However, the centre must be satisfied that the integrity of the assessment is maintained and that the alternative approach to assessment will, in fact, generate the necessary evidence of achievement.

Appendix 1: Reference documents

The following reference documents will provide useful information and background.

♦ Assessment Arrangements (for disabled candidates and/or those with additional support needs) — various publications are available on SQA's website at: www.sqa.org.uk/sqa//14977.html.
♦ Building the Curriculum 4: Skills for learning, skills for life and skills for work
♦ Building the Curriculum 5: A framework for assessment
♦ Course Specification
♦ Design Principles for National Courses
♦ *Guide to Assessment*
♦ Principles and practice papers for curriculum areas
♦ *SCQF Handbook: User Guide* and SCQF level descriptors
♦ *SQA Skills Framework: Skills for Learning, Skills for Life and Skills for Work*
♦ *Skills for Learning, Skills for Life and Skills for Work: Using the Curriculum Tool*
♦ *Coursework Authenticity: A Guide for Teachers and Lecturers*
♦ *Research Report 4 — Less is More: Good Practice in Reducing Assessment Time*
♦ *SQA Guidelines on e-assessment for Schools*
♦ *SQA Guidelines on Online Assessment for Further Education*
♦ SQA e-assessment web page

Administrative information

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History of changes to Unit Support Notes

Version	Description of change	Authorised by	Date
1.1	Amended to provide additional support: ♦ Approaches to learning and teaching ♦ Approaches to assessment	Qualifications Manager	May 2015