



**HOME ECONOMICS:
LIFESTYLE AND CONSUMER
TECHNOLOGY**
Intermediate 2

Sixth edition – published August 2011



**NOTE OF CHANGES TO ARRANGEMENTS
SIXTH EDITION PUBLISHED AUGUST 2011**

COURSE TITLE: Home Economics: Lifestyle and Consumer Technology
(Intermediate 2)

COURSE NUMBER: C117 11

National Course Specification

- Voluntary labelling- CORGI label removed.
- Prevention of debt- Money Advice Centre removed
- Consumer Protection Act 1987 amended.
- Consumer Protection from Unfair Trading Regulations 2008 added
- Roles and responsibilities of Advertising Standards Authority (ASA) amended.
- Roles and responsibilities of British Standards Institution (BSI) amended.
- Roles and responsibilities of Citizens Advice Bureau (CAB) amended.
- Roles and responsibilities of Consumer Association removed and replaced with the roles and responsibilities of Which?
- Roles and responsibilities of Environmental Health Department (EHD) amended.
- Roles and responsibilities of Food Standards Agency (FSA) amended.
- Roles and responsibilities of Trading Standards Department (TSD) amended.

National Unit Specification: No changes.



National Course Specification

HOME ECONOMICS: LIFESTYLE AND CONSUMER TECHNOLOGY (INTERMEDIATE 2)

COURSE NUMBER C117 11

COURSE STRUCTURE

This course comprises of three mandatory units.

<i>D500 11</i>	<i>Lifestyle and Consumer Technology: Management of Practical Activities (Int 2)</i>	<i>1 credit (40 hours)</i>
<i>D501 11</i>	<i>Lifestyle and Consumer Technology: Consumer Studies (Int 2)</i>	<i>1 credit (40 hours)</i>
<i>D502 11</i>	<i>Lifestyle and Consumer Technology: Product Development (Int 2)</i>	<i>1 credit (40 hours)</i>

In common with all courses, this course includes 40 hours over and above the 120 hours for the component units. This may be used for induction, extending the range of learning and teaching approaches, support, consolidation, integration of learning and preparation for external assessment. This time is an important element of the course and advice on its use is included in the course details.

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have attained:

- Standard Grade Home Economics at General level
- a course or its component units at Intermediate 1 in Home Economics or equivalent

The course is also suitable for 'new starts' and adult returners.

Administrative Information

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Additional copies of this course specification (including unit specifications) can be purchased from the Scottish Qualifications Authority for £7.50. **Note:** Unit specifications can be purchased individually for £2.50 (minimum order £5).

National Course Specification: (cont)

COURSE Home Economics: Lifestyle and Consumer Technology
(Intermediate 2)

CORE SKILLS

Core skills for this qualification remain subject to confirmation and details will be available at a later date.

Additional information about core skills is published in the *Catalogue of Core Skills in National Qualifications* (SQA, 2001).

National Course Specification: course details

COURSE Home Economics: Lifestyle and Consumer Technology
(Intermediate 2)

RATIONALE

Home economics is concerned with using and managing resources for the benefit of individuals, the family and society. The course aims to develop candidates' personal effectiveness in using and managing resources in the context of Lifestyle and Consumer Technology through a range of challenging experiences. These experiences will relate to consumer needs for food, clothing, shelter and money in an ever-changing society. Candidates will develop knowledge and understanding about important issues, such as the responsibilities of parenting and child care, the need for shelter and the importance of caring for others. These experiences will enhance their future opportunity for further study, employment and the contribution they are able to make to society.

Lifestyle and Consumer Technology involves the study of a specialist area of knowledge and the development of a range of skills and abilities. These can be defined as: cognitive, technological, scientific, creative, aesthetic and social; and those relating to management. The disciplined study of the interrelationships of these is one of the major contributions the subject makes to the curriculum. For example, when proposing a solution to a specified problem concerning low-cost meals the candidates will be required to integrate knowledge, understanding and skills by:

- defining the particular needs of the specified problem
- demonstrating understanding of an individual's physical needs linked to the nutritional value of low-cost foods
- matching priorities to available resources for maximum benefit of the individual through practical application

The acquisition and the development of skills are integrated through delivery of the course content within the component units.

Study of Lifestyle and Consumer Technology enables candidates to focus on: the physical, social and emotional needs of individuals, families and communities; and on the ways these needs can affect personal decisions and choices about goods and services. Candidates will investigate issues concerning aspects of living as well as the services and agencies which exist to support the consumer.

The requirement to identify and respond to needs promotes the development of technological capability. In its report, *Technology Education in Scottish Schools: A Statement of Position*, the Scottish Consultative Council on the Curriculum (Scottish CCC, 1996) states:

‘A broadly-based technological component in the curriculum does do much to “privilege the practical” and to redress the imbalance in many young people’s educational experience between the acquisition of knowledge, skills and attitudes, and their application to meeting and solving practical problems. Including technology in the curriculum improves the status and attractiveness of the practical and commercial activities which are the heart of industry and business, and helps all young people to recognise the personal satisfaction and enjoyment that can be derived from active participation.’

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

Home Economics in the context of Lifestyle and Consumer Technology provides for the development of the four aspects of technological capability. For example, candidates develop: technological perspective by showing some appreciation of the factors which contribute to the success of a well designed product; technological confidence by questioning their own designs and products and by becoming proficient in applying knowledge and skills to solve problems; technological sensitivity by demonstrating some appreciation that their solutions to technological problems have consequences for others and to the environment; technological creativity by solving problems which require the use of a range of resources, including specialist craft skills and the evaluation of the solution.

Specialist craft skills and management skills are fundamental to Lifestyle and Consumer Technology. The craft skills are the practical and creative specialist skills which can be developed in relation to particular needs of an individual, family or community group. These skills can be used to enhance or benefit health, clothing, the home or leisure, and their use may provide stimulus for the development of babies and young children. The skills can also be used to illustrate understanding for situations relating to a variety of consumer lifestyles and consumer needs.

Management skills are those required for the effective use of time and resources in the production of artefacts (products), systems or environments. Importantly, these skills also include the ability to work effectively, both independently and as a member or leader of a team. These skills enable candidates to participate effectively in technological activities.

The publication of ‘The Scottish Diet’ Report and the amended Dietary Targets for the year 2005 issued in November 1994 has imposed a responsibility on this subject area to assist in meeting these dietary targets in a practical way. The document calls for a greater emphasis to be placed on ‘practical hands-on experience’, and recognises how this experience can promote self-assurance and understanding of nutritional concepts. Lifestyle and Consumer Technology provides an opportunity to address some of the recommendations of the document. For example, candidates will be encouraged to interpret the findings and use this information to solve practical problems and actively promote healthy food preparation for individuals and the family.

An important part of Lifestyle and Consumer Technology is to develop standards in relation to a safe working environment. For example, candidates are encouraged to take responsibility for the health and safety of others. These standards are also applied in service and caring sectors, and are, therefore, transferable.

The course will enable candidates to develop a range of study skills to facilitate and encourage independent learning culminating in a practical assignment. It will also prepare them for further study and employment opportunities in the caring sector, social services and Home Economics.

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology
(Intermediate 2)

AIMS

- 1 To provide opportunities for the acquisition of specialist knowledge and understanding of the factors which influence some of the choices and decisions made by individuals and families* and society.
- 2 To acquire skills of investigation and evaluation through the study of materials and resources necessary for the identification of, and response to, the physical and social needs of individuals and families.
- 3 To acquire the management skills necessary for the effective use of materials and resources and for the application of these skills.
- 4 To offer opportunities to use specialist craft skills for creative purposes, as well as for investigatory and problem solving activities.
- 5 To offer opportunities for the achievement of technological capability in the four aspects of technological perspective, confidence, sensitivity and creativity.
- 6 To offer opportunities for the development of personal and interpersonal skills in the areas of initiative, responsibility, co-operation and adaptability, and to encourage a positive attitude to independent learning.
- 7 To foster vocational and community links and an awareness of the caring sector.

* Families can be defined as a unit made up of more than one person, contributing to the well-being of its individual members.

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Management of Practical Activities

CONTENT	ELABORATION
Need for a balanced diet	Definitions of balanced diet
Causes of malnutrition	under-nutrition over-nutrition
The importance of a healthy lifestyle	the link between diet, exercise, lifestyle and health
Functions and sources of nutrients	protein, fats, carbohydrates, vitamins A, B complex, folic acid, C, D, E, minerals - calcium, phosphorous, iron, sodium.
Functions and sources of:	water fibre(dietary)/NSP
Inter-relationship of:	calcium, phosphorous and vitamin D iron, vitamin C and folic acid vitamin B complex and carbohydrates water and fibre(dietary)/NSP
Prevention of dietary diseases	anaemia coronary heart disease dental caries diverticulitis hypertension obesity osteoporosis

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Management of Practical Activities

CONTENT	ELABORATION
<p>Current Dietary Advice The Scottish Dietary Targets Students should have an awareness of the main issues from:</p> <ul style="list-style-type: none">(i) The Scottish Diet Action Plan(ii) Hungry for Success	<ul style="list-style-type: none">• practical ways of meeting the dietary targets• the use of the dietary targets to influence the proportions of ingredients• adaptation of products to meet dietary targets• the contribution of the dietary targets to good health• acknowledgement of the contribution food manufacturers make to dietary targets by producing pre-packed foods which will help consumers to meet the targets• cooking methods to promote the dietary targets
<p>Other factors which affect health</p>	<p>alcohol consumption environment exercise lifestyle prescription/non-prescription drugs smoking stress</p>

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Management of Practical Activities

CONTENT	ELABORATION
<p>The use of dietary reference values</p> <p>The use of dietary reference values & an awareness of their dietary needs for specified groups:</p> <ul style="list-style-type: none"> • infants/young children • teenagers • adults • elderly 	<p>low reference nutrient intake estimated average requirements reference nutrient intake safe intake</p> <p>relating to the intake of energy, protein, fats, minerals; calcium, phosphorous, iron and sodium, starches and sugars, fibre(dietary)/ NSP, vitamins A, B₁, B₂, Folic acid, C, D, E linking to: age, physical activity (PAL), gender, basal metabolism, special circumstances:</p> <ul style="list-style-type: none"> • pregnancy and lactation • convalescents • weight reduction • vegetarians. <p>(for assessment purposes the reference values will be provided)</p>
<p>Causes of food poisoning</p> <p>Causes of contamination and cross-contamination</p>	<p>conditions for growth of bacteria:</p> <ul style="list-style-type: none"> • warmth, food, moisture, time, oxygen (aerobic and anaerobic), pH levels. <p>definition, causes and preventative measures in terms of:</p> <ul style="list-style-type: none"> • personal hygiene • kitchen hygiene • preparation and storage of food • correct temperature for heating and re-heating of food (Please consult REHIS¹ handbook)

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Management of Practical Activities

CONTENT	ELABORATION
Needs of an individual for food and clothing linked to specified groups: <ul style="list-style-type: none">• infants/young children• teenagers• adults• elderly• disabled	taking account of: <ul style="list-style-type: none">• nutritional needs• Scottish dietary targets• the need for clothing• available income• activities/interests• health• lifestyle• personal taste• occupation/unemployment
Properties of fibres used for clothing/textile items	absorbency, crease resistance, warmth (insulation), durability (abrasion resistance), ease of care, elasticity (stretch), flammability, strength.

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Family structures	definition of: family nuclear family extended family single parent family
Functions of the family	care and mutual support reproduction
Parents and parenthood	care and emotional support of children economic support of children education

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Factors which influence consumer choice of: <ul style="list-style-type: none"> • food and textile items • goods and services 	advertising/marketing/promotional techniques available income climatic conditions cultural and religious influences lifestyle nutritional knowledge environmental issues: organic produce, energy saving, cruelty free, packaging to reduce pollution foreign travel geographical location/access to shops health peer pressure personal taste preparation and cooking equipment available preparation and cooking skills priorities range of retail outlets selling food shift patterns/working hours technological innovations: <ul style="list-style-type: none"> • shopping - online shopping, • banking - online/telephone banking • white/brown goods - fuzzy logic, CFC/HFC free products • breathable membranes, use of elastomeric fibres, performance/smart fabrics • modified atmosphere packaging time available for preparation/cooking/eating

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Services available to meet the needs of individuals, families and the community	<p><u>Statutory services:</u> the main role and responsibility of:</p> <ul style="list-style-type: none"> • health, education, housing, social services <p><u>Voluntary services</u> An awareness of the work done by:</p> <ul style="list-style-type: none"> • Shelter • Samaritans • Women’s Royal Voluntary Service (W.R.V.S.)
Support for parents	<p>Doctor Health visitor Midwife Extended family members</p>
<p>Health in pregnancy</p> <p>The importance of ante-natal care to:</p> <p>Tests carried out to ensure the health of the mother and baby:</p>	<p>correct diet, exercise, avoidance of drugs, alcohol, smoking</p> <p>monitor the pregnancy.</p> <p>weight check blood test blood pressure urine test</p>

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Money management	Budgeting Direct debit/Standing orders Overdraft Personal loan Credit unions
Methods of paying for goods and services	Cash: <ul style="list-style-type: none"> • money • personal cheque/cheque guarantee card • Electronic Fund Transfer at Point of Sale (EFTPOS) Credit: <ul style="list-style-type: none"> Limitations on credit Credit cards Store cards Hire Purchase (HP)/Credit Sale
Prevention of debt	Action to take in event of debt Organisations that can help: <ul style="list-style-type: none"> • Company/Bank/Building society • Citizens Advice Bureau (CAB) • Consumer Credit Counselling Service (CCCS)

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Choice of new/second hand to meet the physical needs of the baby	clothing, furniture, transport, toiletries, toys
Current statutory labelling requirements for food products, textile items and consumer goods	relating to: information on food labels nightwear safety labels fibre content labels flammability labels furniture safety labels energy rating labels microwave labelling scheme star ratings for refrigerators/freezers

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Current voluntary labelling for food products, textile items and consumer goods and services	nutritional information bar codes EU standard care labelling symbols 'CE' mark BSI Kitemark British Toy & Hobby Association's 'lion mark' BEAB label BEAB via CCA label recycling symbols organic labels vegetarian labels cruelty free labels eco daisy CORGI label

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Trade Descriptions Act 1968	It is a criminal offence to: <ul style="list-style-type: none"> • falsely describe goods • to mislead consumers about services
Consumer Protection Act 1987	It is a criminal offence if: <ul style="list-style-type: none"> • traders who supply goods do not make sure they are safe.
Consumer Protection from Unfair Trading Regulations 2008 (CPR's)	These regulations have replaced the Consumer protection Act and the Trade Description Act. The regulations fall into four categories of Unfair practices: <ul style="list-style-type: none"> • Unfair commercial practices • Misleading actions and omissions • Aggressive practices • 31 specific named practices
Food Safety Act 1990	Covers four main areas: <ul style="list-style-type: none"> • labelling • additives and contaminants • composition (or content) • public health and hygiene It is a criminal offence to: <ul style="list-style-type: none"> • sell, or possess for sale, food which does not comply with food safety requirements; • render food injurious to health • sell food which is not of the nature or substance or quality demanded; • falsely or misleadingly describe or present food. Food premises must be registered with the Local Authority All food handlers must be trained/wear suitable clothing Improvement notices can be issued to premises failing to comply with the law defence of 'due diligence'

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Sale and Supply of Goods Act 1994	<ul style="list-style-type: none">• There is a contract of sale between the seller and the buyer.• Goods must be of a 'satisfactory quality'• Goods must 'fit the description given'• Goods must be 'fit for their purpose' as made known to the seller• Consumers have a reasonable period of time to accept the goods or reject them.
Sale and Supply of Goods to Consumers Regulation 2002	<p>This has enhanced consumer rights under the Sale and Supply of Goods Act 1994 Consumers have the legal right to choose repair, replacement, partial or full refund or compensation if a fault appears within 5 years If consumers have a complaint:</p> <ul style="list-style-type: none">• goods must be faulty at time of purchase• if complaint is within 6 months, the onus is on the retailer to prove the goods were not faulty• if complaint after 6 months, the onus is on the consumer to prove the goods were faulty

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Role and responsibilities of Advertising Standards Authority (ASA)	ASA is an independent watchdog maintaining high standards in advertising to benefit consumers, advertisers and society at large. Advertisements, where ever they appear must be legal, decent, honest and truthful ASA: <ul style="list-style-type: none">• investigates complaints• proactively monitors adverts• takes action against misleading, harmful or offensive advertisements, sales promotions and direct marketing

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Role and responsibilities of British Standards Institution (BSI)	<p>The institution is independent and largely self funding through sales revenue and fees.</p> <ul style="list-style-type: none"> • It sets performance and design standards for product and services, aimed at achieving reliable levels for factors such as safety, durability, efficiency, inter-operability and good practice. • The standards are often developed in partnership with overseas organizations in order to ensure that they have a high level of international acceptance. • It test products to assess whether they confirm to a particular standard, as a result of which the product may be entitled to display the BSI Kitemark. • The Kitemark is the symbol that gives consumers the assurance that the product they have bought has been independently assessed and confirms to the appropriate British Standard. • Standards are designed for voluntary use and do not impose any regulations. However, some laws and regulations may refer to certain standards making compliance with them compulsory. Standards are also often used as a means to demonstrate the adoption of good practice or compliance with certain European Directives.
Role and responsibilities of Citizens Advice Bureau	<p>The CAB gives free, confidential, impartial and independent advice on a wide range of subjects, including:</p> <ul style="list-style-type: none"> • Benefits questions about entitlements, support with applications and appeals against decisions • Debt and money advice how to manage your debts, improve your financial situation and maximize your income • Employment rights related advice questions about terms and conditions, dismissal, redundancy, intimidation and unfair dismissal • Consumer issues everything from broken kettles to difficulties with gas and electricity suppliers • Family issues relating to relationship problems, marriages and civil partnerships, children and bereavement • Home and neighbourhood issues including finding a place to live, mortgage problems,

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Role and responsibilities of Citizens Advice Bureau (cont)	rent arrear and neighbourhood disputes.

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Role and responsibilities of Which?	<p>Which? Is a not for profit organization that works to make things better for consumers. It:</p> <ul style="list-style-type: none"> • Offers information and advice to help consumers make more informed decisions. It tests more than 3,000 products a year and publishes the results in its magazines and on which.co.uk. It also carries out investigations into a range of services. The best performing products and services are given Best Buy and Recommended Provider status, and companies are able to use this accolade in their marketing. • Campaigns on a range of issues to make people's lives fairer, simpler and safer. It regularly talks to consumers to make sure they're campaigning on issues that really matter to consumers-from energy and personal finance, to food and health. • Offers services and products to put consumers' needs first and bring them better value. For example we offer a mortgage advice service, Money and Legal advice lines, and mobile and energy switching services.
Roles and responsibilities of Environmental Health Department (EHD)	<ul style="list-style-type: none"> • Enter premises at any reasonable time to carry out food safety duties • Inspection of premises on risk based frequency (vast majority of visits unannounced) • Provide guidance and advice • Investigate food complaints • Investigate food poisoning • Take samples of food
Role and responsibilities of Food Standards Agency (FSA)	<ul style="list-style-type: none"> • protection of public health in relation to food hygiene and food safety • licensing of meat processing companies and for hygiene controls on meat and meat products • controlling the production of novel foods • control of genetically modified food • licensing and inspection of manufacturers who produce irradiated food • monitoring the use of food additives • monitoring of the composition of food and food labelling • advice about the nutrient content of foods and dietary issues

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Consumer Studies

CONTENT	ELABORATION
Role and responsibility of Trading Standards Department (TSD)	<ul style="list-style-type: none">• Trading Standards Department/ Consumer Protection department is a local authority service.• The role is to enforce consumer protection legislation in order to maintain a safe and fair trading environment for consumers and traders in the local Council area. A list of legislation is enforced by Trading Standards can be viewed on the Trading Standards website.• Trading Standards serve as an information service for other agencies, such as the Office of Fair Trading and for this purpose information is held about unfair trading practices.• Enforcing Consumer Protection from Unfair Trading Regulations 2008

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Product Development

CONTENT	ELABORATION
The principles of design:	function, aesthetics, safety, hygiene, quality, durability
The role raw materials play in the development of food products	colour, flavour, addition of nutritional value - (fortification) texture, bulking
The role raw materials play in the development of textile products	colour, drape, texture, durability (abrasion resistance), strength handle
Constraints applied by cost to food or textile product development	examples of how manufacturers save money by: <ul style="list-style-type: none">• waste reduction• stock control• energy saving
Scales of production	one-off batch production mass/commercial production

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Product Development

CONTENT	ELABORATION
Product development strategy Identifying needs and developing concepts for products	concept generation concept screening prototype production product testing information and advertising materials designed for packaging first production run marketing plan launch investigation of existing products by disassembly
Market Research	reasons why manufacturers use market research benefits of market research to manufacturer/retailer types of market research <ul style="list-style-type: none"> • direct and indirect • qualitative and quantitative

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

COURSE CONTENT

Lifestyle and Consumer Technology: Product Development

CONTENT	ELABORATION
Sensory testing	reasons for manufacturers carrying out sensory testing sensory tests: preference test rating test/ranking test difference tests: <ul style="list-style-type: none">• paired comparison test• duo-trio test• triangle test• taste threshold test• profiling test• discrimination test wearer trials conducting sensory tests to determine the effects of range and proportion of ingredients on appearance, texture, flavour, aroma, overall acceptability, quality and preference conducting sensory tests to analyse the attributes of a garment/item

Web addresses for Course content - Intermediate 2 - Lifestyle and Consumer Technology

Nutrition Hungry for Success ¹ and current dietary advice	http://www.food.gov.uk/scotland/scotnut/ www.scotland.gov.uk/library5/education/hfs-00.asp
Royal Environmental Health Institute of Scotland ² Food safety and hygiene	www.rehis.org http://www.food.gov.uk/scotland/safetyhygienescot/
Shelter ³	www.scotland.shelter.org.uk/home/index.cfm/setcountry/true www.scotland.shelter.org.uk/
Samaritans ⁴	www.multikulti.org.uk/agencies/english/scotland
Citizens Advice Scotland	www.cas.org.uk/
WRVS ⁵	www.nhsborders.org.uk/view_item.aspx?item_id=16589
Environmental Issues ⁶	www.greenchoices.org www.recyclenow.com www.greenpeace.org.uk www.energysavingtrust.org.uk www.environment-agency.gov.uk
Consumer Credit Counselling Service ⁷ Money make sense	www.cccs.co.uk www.moneymakesense.co.uk

Web addresses for Course content - Intermediate 2 - Lifestyle and Consumer Technology (cont)

Fair Trade products⁹

www.fairtrade.org.uk/

www.fairtradefederation.com/memcof.html

www.maketradefair.com

Food Standards Agency

www.food.gov.uk

www.eatwell.co.uk

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

Taking units as part of a course has a number of advantages:

- Candidates will have opportunities to develop the four aspects of technological capability in a coherent, holistic way
- Candidates will have opportunities to develop management skills in a variety of contexts; and to develop personal and interpersonal skills
- Candidates will be encouraged to adopt a structured approach to independent learning which culminates in the production of an independent piece of work submitted for external assessment
- Candidates should gain a perspective and understanding of Lifestyle and Consumer Technology
- A course award indicates a candidate's ability to integrate process skills, knowledge and understanding and apply these to more complex, or unfamiliar situations
- Candidates will be required to retain knowledge and skill levels over a longer period of time

It is important that candidates wishing to attain a course award, as distinct from achievement of the individual units, should appreciate the holistic nature of the whole course. An integrative approach to learning is recommended, and can be achieved in a variety of imaginative ways. Classroom activities chosen to deliver course content should match the needs and abilities of the candidates and enable them to: develop and practise the skills identified in the rationale; develop the transferable skills of enquiry, investigation and evaluation; extend their knowledge base. Such activities will prepare candidates for external assessment by enabling them to achieve at levels beyond those required to demonstrate competency for each of the unit outcomes.

Areas of course content from the component units of *Lifestyle and Consumer Technology: Management of Practical Activities*, *Lifestyle and Consumer Technology: Consumer Studies* and *Lifestyle and Consumer Technology: Product Development* can be integrated. For example, the importance of identifying priorities in relation to availability of resources and time (*Lifestyle and Consumer Technology: Management of Practical Activities*), the factors affecting lifestyle which influence personal choices and decisions (*Lifestyle and Consumer Technology: Consumer Studies*) and the requirements necessary to develop products within the home environment (*Lifestyle and Consumer Technology: Product Development*) can be successfully linked and delivered through various outcomes of the unit. Candidates could be asked to consider the same problem from a number of different perspectives or in unfamiliar situations. Teachers/lecturers should make candidates aware of the integration between the knowledge and skills of the component units.

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology
(Intermediate 2)

ASSESSMENT

To gain the award of the course, the candidate must achieve all the component units of the course as well as the external assessment. External assessment will provide the basis for grading attainment in the course award.

When units are taken as component parts of a course, candidates will have the opportunity to demonstrate achievement beyond that required to attain each of the unit outcomes. This attainment may, where appropriate, be recorded and used to contribute towards course estimates, and to provide evidence for appeals. Additional details are provided, where appropriate, with the exemplar assessment materials. Further information on the key principles of assessment are provided in the paper *Assessment*, published by HSDU in May 1996.

DETAILS OF THE INSTRUMENTS FOR EXTERNAL ASSESSMENT

Course assessment will be external and will sample across the outcomes of the component units.

Course assessment will consist of a question paper and a technological project.

The question paper will be of 1 hour 30 minutes' duration and total 60 marks. Short and restricted-response questions will be used. There will be an element of choice within some questions in the question paper. The paper will consist of 5 questions each worth 12 marks. All questions will have to be attempted. Question 1 will be derived from a specified area of course content.

The question paper will assess the candidates' ability to:

- recall and use knowledge for a range of straightforward problems and situations
- draw conclusions by selecting relevant information from source materials
- evaluate using defined criteria

Candidates will be required to submit a technological project worth 50 marks. The project will enable candidates to demonstrate integration of knowledge and skills across the component units in order to realise a solution and demonstrate technological capability. The project will be carried out within the centre. Two project briefs will be issued by the Scottish Qualifications Authority on an annual basis. One of these will be selected by the candidate and completed within 20 hours. The technological project will be wholly externally assessed. Candidates will be provided with the appropriate proforma and guidance by the Scottish Qualifications Authority.

Teacher/lecturer guidance will be provided which set out conditions and arrangements for external assessment.

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

The technological project will assess the candidate's ability to:

- devise and implement a strategy to provide a solution to a product brief
- manage time and resources effectively in the manufacture of products
- evaluate the process and solution

The overall course award will be based on the combined total marks from the question paper and the technological project.

Teachers/lecturers may offer guidance by giving:

- advice on source information, persons or establishments that may be able to help
- assistance with planning for deadlines
- advice on the suitability and practicability of the strategy produced by the candidate

In some cases teachers and lecturers may wish to use an assessment instrument which will serve two purposes:

- 1 to assess attainment in relation to unit outcomes;
- 2 to provide evidence towards course estimates.

The technological project is an example of this type of instrument

GRADE DESCRIPTIONS

The descriptions below are of expected performances at Grade C and at Grade A. They are intended to assist candidates, teachers, lecturers and users of the certificate and to help establish standards when question papers are being set. The grade of the award will be based on the total score obtained in the examination.

Each unit of the course contains details of outcomes and the related performance criteria for each outcome.

The grade descriptions for course assessment will relate to the performance criteria for internal assessment but will also place additional demands on candidates by testing their ability to: integrate knowledge and skills acquired across the component units; retain knowledge and skill levels over a longer period of time; apply knowledge and skills in more challenging ways, for example in less familiar contexts. It should be noted that grade descriptions on their own are likely to provide a tool for making judgements about standard. They will require to be augmented in due course by exemplar assessment materials and detailed assessment schemes.

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology
(Intermediate 2)

GRADE C	GRADE A
Demonstrate knowledge and understanding by recalling and using some of the facts, concepts, terminology and principles, as defined in the content to address straightforward problems and situations providing accurate explanation some of which is detailed	Demonstrate knowledge and understanding by recalling and using most of the facts, concepts, terminology and principles as defined in the content to address straightforward problems and situations providing detailed accurate explanation
Devise and implement a strategy to provide a solution to a straightforward technological problem using appropriate techniques familiar, and procedures accurately to obtain some reliable data.	Devise and implement a strategy to provide a solution to a straightforward technological problem using appropriate, familiar techniques and procedures effectively to consistently obtain reliable data.
Integrate specialist craft skills and knowledge and understanding within a planned activity demonstrating satisfactory deployment of time and resources, to select, prepare and present product(s).	Integrate specialist craft skills and knowledge and understanding within a planned activity demonstrating highly effective deployment of time and resources, to select, prepare and present product(s).
Draw a conclusion with accurate explanation, some of which is detailed, after selecting relevant source information, taking some account of specified factors.	Draw a conclusion with detailed, accurate explanation, after selecting relevant source information, taking full account of specified factors.
Make an evaluation of an outcome, process or solution, against defined criteria providing accurate explanation, some of which is detailed.	Make an evaluation of an outcome, process or solution, against defined criteria providing detailed accurate explanation.

APPROACHES TO LEARNING AND TEACHING

Approaches to learning and teaching should provide opportunities for candidates of all abilities 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 candidates' interest and motivation are maintained and individual preferences for different learning styles are considered. Teachers will need to ensure an appropriate balance between teacher-directed approaches and candidate-centred activities. For example, it may be more appropriate to use a teacher-directed approach when introducing a new concept.

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

Where appropriate, arrangements should be made to ensure that there will be no artificial barriers to learning. The nature of candidates' special 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 candidates and support them in the learning process.

Knowledge and understanding of facts, terminology, concepts and principles will be developed through a process-based approach to learning, making full use of available resources. The specialist craft skills should be used as an integral part of the course for the purposes of: investigation; the manufacturing of products; and consolidation of knowledge and understanding.

Candidates will be required to develop the skills of investigation and evaluation within technological activities, using systematic application of these skills to solve practical problems or address relevant issues. Management skills should be developed through activities, such as assignments, designed to involve candidates in planning, preparing and carrying out related tasks using time resources and energy efficiently.

An integrated approach to learning and teaching across the component units of *Lifestyle and Consumer Technology: Management of Practical Activities*, *Lifestyle and Consumer Technology: Consumer Studies* and *Lifestyle and Consumer Technology: Product Development* is recommended. Potential links between outcomes of units can be established, which will provide opportunities for candidates to develop skills and use knowledge within one activity.

The relationship between the learning experience and applications in industry or the service sector should be emphasised to provide real contexts for learning, and realistic problems to solve. These opportunities will increase self esteem, confidence and motivation for the candidates and improve their insight into the needs of the service sector and the skills required of those entering the job market. An industrial or community link is an excellent way of promoting understanding of how the service sector works and the roles, responsibilities, attitudes and qualities of the personnel required. This understanding can then be mirrored in classroom activity by candidates displaying a responsible attitude towards given tasks. Entrepreneurial activities provide exciting and challenging opportunities for learning, and these are greatly enhanced when they are linked with industry or the service sector.

It will be important to ensure from the outset that candidates are familiar with all unit outcomes and course grade descriptions.

Use of the additional 40 hours

The additional 40 hours of flexible time should be integrated into the course design for use at important stages of delivery; for example:

<i>Stage</i>	<i>Explanation</i>
Candidate induction	Familiarisation with the aims and design of the course. Familiarisation with the requirements of internal assessment for the units and external assessment of the course. Setting target deadlines for the units, course and assessment.

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

Presentation of work; for example, the requirement for tabulation and bullet points to reduce extensive text when answering examination questions.

Candidate commitment to meet the demands and deadlines of the course.

Technological project Time to complete the technological project will be taken from the additional 40 hours and from time available within the component units. For example, a number of outcomes in the component units can be achieved when candidates undertake the technological project, thus reducing the demands and time required for internal unit assessment.

Preparation for external assessment External course assessment will place additional demands on candidates, requiring them to:

- demonstrate the ability to integrate knowledge, understanding and skills acquired in component units
- retain knowledge and skill levels over a longer period of time
- apply knowledge and skills in less familiar or more complex contexts

Candidates, therefore, will require time and appropriate experiences to permit them to develop these additional skills and abilities. These experiences should include:

- consolidation and revision of knowledge and skills identified in the rationale
- practice in external assessment examination techniques
- opportunities to achieve at levels beyond that required to demonstrate attainment for competence in each of the unit outcomes

A Subject Guide, which provides further advice and information, has been published in association with these Arrangements.

National Course Specification: course details (cont)

COURSE Home Economics: Lifestyle and Consumer Technology
(Intermediate 2)

SPECIAL NEEDS

This course specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (SQA, 2001).



National Unit Specification: general information

UNIT	Lifestyle and Consumer Technology: Management of Practical Activities (Intermediate 2)
NUMBER	D500 11
COURSE	Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

SUMMARY

At the end of this unit, candidates will be able to use knowledge and understanding to select appropriate resources in order to carry out a practical activity, which relates directly or indirectly to the home or community. The candidate will be able to use time and energy effectively in the planning and carrying out of the activity and evaluate its success.

OUTCOMES

- 1 Plan, organise and complete a practical activity which meets the needs of a given task.
- 2 Evaluate a planned practical activity.
- 3 Use knowledge and understanding of an area of study to address a problem or situation

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates will normally be expected to have attained one of the following:

- a course or its component units at Intermediate 1 in Home Economics
- Standard Grade Home Economics at General level or equivalent

The unit is also suitable for 'new starts' or adult returners.

Administrative Information

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National Unit Specification: general information (cont)

UNIT Lifestyle and Consumer Technology:
Management of Practical Activities (Intermediate 2)

CREDIT VALUE

1 credit at Intermediate 2.

CORE SKILLS

This unit gives automatic certification of the following:

Complete core skills for the unit	None
Core skills components for the unit	Planning and Organising Int 2 Reviewing and Evaluating Int 2

Additional information about core skills is published in the *Catalogue of Core Skills in National Qualifications* (SQA, 2001).

National Unit Specification: statement of standards

UNIT Lifestyle and Consumer Technology: Management of Practical Activities (Intermediate 2)

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

OUTCOME 1

Plan, organise and complete a practical activity which meets the needs of a given task.

Performance criteria

- (a) A logical sequence of work for the practical activity is planned, showing efficient management of time.
- (b) Manufacture is carried out accurately, and efficiently.
- (c) The product(s) made are presented in a condition suitable for the purpose intended.
- (d) Health and safety requirements are met.

Evidence requirements

Recorded evidence must be provided to show that each of the performance criteria has been met on one occasion. The proposed instrument of assessment is a practical exercise, which may be part of a design activity. Attainment could be recorded by the use of an observational checklist. Specific advice:

- (a) the sequence of work shows clear evidence of: time management; requisitioning of resources and equipment; sensible sequencing of stages taking account of preparation, manufacture time and skills level; use of labour saving equipment, where appropriate, to make the best use of time
- (b) product(s) are prepared according to instructions, taking account of the correct techniques and procedures for preparation, efficient use of resources and safe, hygienic practices. Labour saving equipment should be used to save time
- (c) product(s) are prepared with accuracy according to instructions, taking account of the correct techniques and procedures for preparation, efficient use of resources and time, and safe, hygienic practices. Equipment such should be used to save time, and give consistent results
- (d) equipment is used according to instructions, in a safe manner and is cleaned correctly. Appropriate clothing is worn and personal hygiene is of a high standard throughout the practical activity. Clean and tidy workstations are maintained

National Unit Specification: statement of standards (cont)

UNIT Lifestyle and Consumer Technology:
Management of Practical Activities (Intermediate 2)

OUTCOME 2

Evaluate a planned practical activity.

Performance criteria

- (a) The plan for the sequence of work is evaluated with concise comment against given criteria.
- (b) The products are evaluated, with some detailed explanation, for their suitability in meeting the purpose of the practical activity.

Evidence requirements

Recorded evidence must be provided to show that each of the performance criteria has been met on one occasion. The proposed instrument of assessment is a practical exercise. The candidate's comments should be recorded using a structured outline for evaluation. Oral comment must be recorded appropriately, eg, on tape. Attainment should be assessed by the use of a marking schedule. Specific advice:

- (a) comment, normally oral or written, on: the ordering of work in respect of time constraints, preparation and manufacturing techniques and procedures; candidate's skill level; use of equipment (if applicable). Modifications should be included with reasoning as to why these might be necessary. Modification may include: further work required; a suggested alternative plan; modifications to the product
- (b) comment, normally oral or written, on how the product(s) meet their intended purpose using identified criteria

OUTCOME 3

Use knowledge and understanding of an area of study to address a problem or situation.

Performance criterion

- (a) An accurate explanation, reflecting consideration of the problem or situation, is given.

Evidence requirements

Recorded evidence must be provided to show that the performance criterion has been met on one occasion. The proposed instrument of assessment is a question paper requiring short and restricted responses, using a closed book approach. The questions will be derived from sampling the content of the unit. Attainment could be assessed by the use of a marking schedule.

National Unit Specification: support notes

UNIT Lifestyle and Consumer Technology: Management of Practical Activities (Intermediate 2)

This part of the unit specification is offered as guidance. The support notes are not mandatory.

While the time allocated to this unit is at the discretion of the centre, the notional design length is 20 hours.

GUIDANCE ON CONTENT AND CONTEXT FOR THIS UNIT

The content on which this unit is based is listed in the course specification for Home Economics: Lifestyle and Consumer Technology (Int 2).

The unit is set in the context of lifestyle and consumer technology. Candidates will be required to demonstrate knowledge and understanding of the content, by using it as a focus for related practical activities. Knowledge and understanding of the content can be acquired or consolidated through practical exercises.

The context for the unit requires candidates to understand the importance of combining several activities in a systematic way, to make effective use of time and resources for both commercial and domestic purposes/situations.

Development of planning and organisational skills and the completion of practical exercises can be integrated with the delivery of the other component units, when they are part of the course in Lifestyle and Consumer Technology.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Learning and teaching approaches for this unit should match the unit outcomes. Knowledge and understanding of the content of the unit can be acquired or consolidated through provision of practical activities which focus on the specific area of content.

Successful learning and teaching should be the result of positive partnership between teacher/lecturer and candidate. The purpose of the unit and the performance required to attain it should be made clear to the candidate. The balance between demonstration and exposition, together with opportunities for candidates to work independently as learners, should be carefully considered. For example, a new concept may require a teacher-led approach to learning in order to ensure coverage of appropriate content. However, once this has been done candidates may be given an activity requiring them to work independently to demonstrate their understanding of the concept.

Outcomes 1 and 2

A group or candidate-centred approach to learning is recommended in the initial stages. Individuals should be encouraged to make contributions to ideas for planning, carrying out and evaluating practical exercises as part of a group experience. It is important that candidates understand:

- why the planning stages are important to the activity
- how the end results can be affected by inefficient use of time and resource
- how the activity will be reviewed
- why it should be evaluated

National Unit Specification: support notes (cont)

UNIT Lifestyle and Consumer Technology: Management of Practical Activities (Intermediate 2)

Evaluation of an activity will enable candidates to identify the strengths and weaknesses of their management skills and will lead to an honest reflection of independent work.

Communication skills will be developed through shared ideas and experiences, and through the opportunity to offer opinions, comment and constructive criticism on the ideas of others. To encourage candidate participation and motivation, the pace of work, level of challenge, and prior knowledge and experiences of candidates should be considered.

Outcome 3

Candidates should be able to access a range of source information which relates to the content, eg, video, text, food commodities, a range of textiles, commercial packages. A stations approach could be used as a method for acquiring and reinforcing knowledge and understanding, using different approaches to learning at each station. Outside speakers such as dieticians, representatives from support services. eg, Meals on Wheels, Citizens' Advice Bureaux, Environmental Health Officers, Home Economists, Trading Standards Officers could contribute to candidate learning.

The teacher/lecturer can pre-test knowledge and understanding of the content by using oral-questioning techniques during practical activities. When using a group approach, candidates may demonstrate knowledge and understanding by presenting a short talk after a practical activity. It is necessary to cover the entire content of the unit for the benefit of the overall candidate experience.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Whilst it is possible to devise test instruments for each of the unit outcomes, it is preferable to use ones which encompass more than one outcome. This approach will reduce the demands of assessment on candidates and leave more time for learning and teaching. The evidence requirements fall into two categories:

- activities
- demonstration of the knowledge and understanding which underpins the practical activity

While attainment of Outcomes 1 and 2 need only be demonstrated on one occasion, it is unlikely that candidates would be ready for assessment until the later stages of the unit. Assessment could take place as an end of unit test. However, it is possible for evidence to be gathered when candidates are carrying out practical exercises throughout the unit.

Outcome 3

In the interests of confidentiality and national standards, it would be more appropriate for all candidates to carry out this assessment item at the same time within a teaching group.

Further guidance and exemplification on appropriate evidence will be provided in the Subject Guide.

National Unit Specification: support notes (cont)

UNIT Lifestyle and Consumer Technology: Management of Practical Activities (Intermediate 2)

The delivery and assessment of this unit is open to alternative methods to support the inclusion of all candidates. Examples include:

- extension to the notional design length
- use of technology to record information/instruction and to support assessment situations
- appropriate level of teacher/lecturer or auxiliary support in practical activities
- use of specialist

SPECIAL NEEDS

This unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (SQA, 2001).



National Unit Specification: general information

UNIT	Lifestyle and Consumer Technology: Consumer Studies (Intermediate 2)
NUMBER	D501 11
COURSE	Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

SUMMARY

At the end of this unit, candidates will be able to use investigative techniques to: compare consumer products; draw conclusions from information relating to consumer issues; demonstrate the underpinning knowledge and understanding relating to influences affecting consumer choice of food, clothing and other consumer goods.

OUTCOMES

- 1 Use skills and techniques to make a comparative study of a consumer product.
- 2 Draw a conclusion from given source information for a specific task.
- 3 Use knowledge and understanding of an area of study to address a problem or situation.

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have completed one of the following:

- a course or its component units at Intermediate 1 in Home Economics
- Standard Grade Home Economics at General level or equivalent

The unit is also suitable for 'new starts' or adult returners.

Administrative Information

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National Unit Specification: general information (cont)

UNIT Lifestyle and Consumer Technology:
Consumer Studies (Intermediate 2)

CREDIT VALUE

1 credit at Intermediate 2.

CORE SKILLS

There is no automatic certification of core skills or core skills components in this unit.

Additional information about core skills is published in the *Catalogue of Core Skills in National Qualifications* (SQA, 2001).

National Unit Specification: statement of standards

UNIT Lifestyle and Consumer Technology: Consumer Studies (Intermediate 2)

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

OUTCOME 1

Use skills and techniques to make a comparative study of a consumer product.

Performance criteria

- (a) The choice of skills and techniques used is appropriate to the nature of the comparative study.
- (b) The methods of application of the skills and techniques are devised and delivered accurately.
- (c) The results are presented clearly and reflect the differences/similarities across the product range

Evidence requirements

Recorded evidence must be provided to show that each of the performance criteria has been met on one occasion. The proposed instrument of assessment is an investigation which may form part of a design activity. The investigation could be completed on pro-forma. Performance could be recorded by the teacher/lecturer using a checklist. Specific advice:

- (a) the products may be food or textile related or white goods. The aspects to be compared are identified, eg, taste, appearance, freshness, cost/value for money, effect on the environment. Appropriate choice of techniques would include at least, two of the following: sensory evaluation; questionnaire; interview; testing for quality; costing analysis. The techniques chosen must be relevant to the purpose
- (b) procedures used to execute the techniques should be carried out accurately and show appreciation of purpose
- (c) recording and presenting of results should be easy to interpret

OUTCOME 2

Draw a conclusion from given source information for a specific task.

Performance criteria

- (a) The main points identified from the given source information relate clearly to the task.
- (b) An accurate conclusion is drawn supported by a reasoned explanation to meet the needs of the task.

Evidence requirements

Recorded evidence must be provided to show that each of the performance criteria has been met on one occasion. The proposed instrument of assessment is a report which may form part of a design activity. Attainment could be assessed by the use of a marking scheme. Specific advice:

PC (a) and (b): a task could be derived from investigations within a design activity or from an area from the content for the unit.

National Unit Specification: statement of standards (cont)

UNIT Lifestyle and Consumer Technology:
 Consumer Studies (Intermediate 2)

OUTCOME 3

Use knowledge and understanding of an area of study to address a problem or situation.

Performance criterion

- (a) An accurate explanation, reflecting consideration of the problem or situation, is given.

Evidence requirements

Recorded evidence must be provided to show that the performance criterion has been met on one occasion. The proposed instrument of assessment is a question paper requiring short and restricted responses, using a closed book approach. The questions will be derived from sampling the content of the unit. Attainment could be assessed by the use of a marking scheme.

National Unit Specification: support notes

UNIT Lifestyle and Consumer Technology: Consumer Studies (Intermediate 2)

This part of the unit specification is offered as guidance. The support notes are not mandatory.

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

GUIDANCE ON CONTENT AND CONTEXT FOR THIS UNIT

The content on which this unit is based is listed in the course specification for Home Economics: Lifestyle and Consumer Technology (Int 2).

This unit is set in the context of lifestyle and consumer technology.

GUIDANCE ON LEARNING AND TEACHING APPROACHES FOR THIS UNIT

Learning and teaching approaches for this unit should match the unit outcomes. Knowledge and understanding of the content of the unit can be acquired or consolidated through provision of practical activities which focus on the specific area of content.

Outcomes 1 and 2

A candidate-centred approach to learning is recommended. There should be access to source materials such as commercial food products, videos, magazines and catalogues. The shared experiences of the candidates can be a stimulus to learning, for example, home experiences or experience of the workplace. Brainstorming and group discussion should be used in the initial stages to motivate candidates and develop confidence.

Candidates should be given opportunities to identify the main features of consumer products and to use these features as a basis for comparison with other products, which may be food, textile or white goods.

A way of introducing candidates to the comparative testing of commercial products is to organise stations and employ a group approach to learning within the stations. The stations could involve candidates looking at different products or looking at one product in detail. The types of activities within stations could be: investigation; sensory evaluation; comparison of an identified feature, eg, nutritional information, costing, home-made and commercial. It is important that the teacher/lecturer provides examples of the procedures for setting up investigations, testing and presenting results. The procedures must be clear so that candidates can replicate the processes for a variety of tasks.

Candidates should be encouraged to communicate and use discussion skills with each other and the teacher/lecturer, so that conclusions drawn can be exchanged during group activity.

Outcome 3

The underpinning knowledge and understanding could be reinforced by direct teaching. This will ensure coverage of all the content of the unit. Arrangements for visits and outside speakers should be made to make learning more interesting for the candidate; and to give a real-life perspective.

National Unit Specification: support notes (cont)

UNIT Lifestyle and Consumer Technology: Consumer Studies (Intermediate 2)

The teacher/lecturer can pre-test knowledge and understanding of the content by using oral questioning techniques during practical activities. When using a group approach, candidates may demonstrate knowledge and understanding by presenting a short talk after a practical activity. It is necessary to cover the entire content of the unit for the benefit of the overall candidate experience. The use of information technology is recommended to enhance the generation of evidence and access to appropriate software is important.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Whilst it is possible to devise test instruments for each of the unit outcomes, it is preferable to use ones which encompass more than one outcome. This approach will reduce the demands of assessment on candidates and leave more time for learning and teaching. The evidence requirements fall into two categories:

- activities - investigation
- demonstration of the knowledge and understanding which underpins the practical activity

Outcome 1 and 2

While attainment of outcomes 1 and 2 need only be demonstrated on one occasion, it is unlikely that candidates would be ready for assessment until the later stages of the unit. Assessment could take place as an end of unit test. However, it is possible for evidence to be gathered when candidates are carrying out investigations throughout the unit.

The evidence requirements demand that the candidate can use investigative techniques to carry out comparative testing of a product and can present results that are clear to the reader. The investigation could be targeted on a particular range of products, and candidates could have some choice in the methods and techniques to be used.

The report containing the conclusion should be structured, short and concise.

Outcome 3

In the interests of confidentiality and national standards it would be more appropriate for all candidates to carry out this assessment item at the same time within anyone class.

Further guidance and exemplification on appropriate evidence will be provided in the Subject Guide.

The delivery and assessment of this unit is open to alternative methods to support the inclusion of all candidates. Examples include:

- extension to the notional design length
- use of technology to record information/instruction and to support assessment situations
- appropriate level of teacher/lecturer or auxiliary support in practical activities
- use of specialist equipment

National Unit Specification: support notes (cont)

UNIT Lifestyle and Consumer Technology:
 Consumer Studies (Intermediate 2)

SPECIAL NEEDS

This unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (SQA, 2001).



National Unit Specification: general information

UNIT	Lifestyle and Consumer Technology: Product Development (Intermediate 2)
NUMBER	D502 11
COURSE	Home Economics: Lifestyle and Consumer Technology (Intermediate 2)

SUMMARY

At the end of this unit candidates will be able to demonstrate technological capability as a result of using knowledge, understanding and skills to carry out problem solving processes used in product development.

OUTCOMES

- 1 Develop ideas for a solution to meet the needs of a product brief.
- 2 Evaluate the solution of product development.
- 3 Use knowledge and understanding of an area of study to address a problem or situation.

RECOMMENDED ENTRY

While entry is at the discretion of the centre, candidates would normally be expected to have completed one of the following:

- a course or its component units at Intermediate 1 in Home Economics
- Standard Grade Home Economics at General level or equivalent

The unit is also suitable for 'new starts' or adult returners.

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National Unit Specification: general information (cont)

UNIT Lifestyle and Consumer Technology:
Product Development (Intermediate 2)

CREDIT VALUE

1 credit at Intermediate 2.

CORE SKILLS

This unit gives automatic certification of the following:

Complete core skills for the unit	None
Core skills components for the unit	Critical Thinking Int 2 Reviewing and Evaluating Int 2

Additional information about core skills is published in the *Catalogue of Core Skills in National Qualifications* (SQA, 2001).

National Unit Specification: statement of standards

UNIT Lifestyle and Consumer Technology: Product Development (Intermediate 2)

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

OUTCOME 1

Develop ideas for a solution to meet the needs of a product brief

Performance criteria

- (a) The brief is analysed and the key points accurately identified.
- (b) Appropriate criteria for a specification are identified in measurable terms.
- (c) Investigations are clear in purpose and appropriate to the criteria identified in the specification.
- (d) A solution is proposed which reflects the results of investigation.
- (e) A prototype for the idea is manufactured to meet the specification.

Evidence requirements

Recorded evidence must be provided to show that each of the performance criteria has been met on one occasion. The proposed instrument of assessment is a design activity. The conditions which apply to the activity are: teacher/lecturer support in the manufacturing stages of the activity should there be a malfunction of equipment; negotiation of a time limit for the design activity. The recorded evidence should be produced as defined in performance criteria (a) - (e) using pro-forma. Attainment should be assessed by the use of a marking scheme and recorded on observational checklist. Specific advice:

- (a) Recorded evidence to show that the brief has been broken down into key parts
- (b) The specification should be recorded in measurable terms, in short statements and take account of the key points and principles of design
- (c) Evidence of search and investigation techniques could include: investigation to gain background information eg a list of questions to be addressed; technical information, eg, looking at existing products that meet the needs of the brief and identifying their characteristics; investigation into availability of resources
- (d) Evidence to show **one** idea - evidence could be **one** from the following: story board; design diagrams; recipes; brief descriptive notes
- (e) Evidence of the prototype - the item/photographic evidence/observational checklist/video

National Unit Specification: statement of standards (cont)

UNIT Lifestyle and Consumer Technology:
Product Development (Intermediate 2)

OUTCOME 2

Evaluate the solution of product development.

Performance criterion

The solution is evaluated against the specification, with accurate explanation.

Evidence requirements

Recorded evidence must be provided to show that the performance criterion has been met on one occasion. The proposed instrument of assessment is a design activity. The evidence should include a general appraisal of how well the solution meets the specification, with suggestions for modifications or improvements, if appropriate. Attainment could be assessed by the use of a marking scheme which takes account of the specification.

OUTCOME 3

Use knowledge and understanding of an area of study to address a problem or situation.

Performance criterion

(a) An accurate explanation, reflecting consideration of the problem or situation, is given.

Evidence requirements

Recorded evidence must be provided to show that the performance criterion has been met on one occasion. The proposed instrument of assessment is a question paper requiring short and restricted responses, using a closed book approach. The questions will be derived from sampling the content of the unit. Attainment could be assessed by the use of a marking scheme.

National Unit Specification: support notes

UNIT Lifestyle and Consumer Technology: Product Development (Intermediate 2)

This part of the unit specification is offered as guidance. The support notes are not mandatory.

While the time allocated to this unit is at the discretion of the centre, the notional design length is 140 hours

GUIDANCE ON CONTENT AND CONTEXT FOR THIS UNIT

The content on which this unit is based is listed in the course specification for Home Economics: Lifestyle and Consumer Technology (Int 2).

This unit is set in the context of lifestyle and consumer technology. Candidates will be required to demonstrate the knowledge and understanding of the content which underpins the practical activities in product development. The content is concerned with those aspects of manufacturing which are important in the domestic and commercial setting.

Within the context of lifestyle and consumer technology, the candidate is required to develop skills to solve practical problems. The skills are those of analysis, investigation and evaluation, and they enable candidates to develop ideas for the manufacture of creative and imaginative products. When candidates evaluate the solution of product development, they should be encouraged to look at other commercial and home-made products, which have been manufactured to a specification. The principles of design identified within the content should be used as the basis for drawing up specifications for intended products.

GUIDANCE ON LEARNING AND TEACHING FOR THIS UNIT

Learning and teaching approaches should match the unit outcomes. Knowledge and understanding of the content can be acquired or consolidated through practical activities which focus on product development. Candidates should have opportunities to extend their knowledge and skills in the manufacture of products. However, it is not expected that candidates should carry out unrealistic activities which require equipment outside the scope of the classroom.

Successful learning and teaching should be the result of positive partnership between teacher/lecturer and candidate. The purpose of the unit and the performance required to attain it should be made clear to the candidate. The balance between demonstration and exposition, together with opportunities for candidates to work independently as learners, should be carefully considered. For example, a new concept may require a teacher-led approach to learning in order to ensure coverage of appropriate content. However, once this has been done candidates may be given an activity requiring them to work independently to demonstrate their understanding of the concept.

A group or candidate-centred approach to learning is recommended in the initial stages of unit delivery. Individuals should be encouraged to make contributions to ideas for product development as part of a group experience. This approach will help to develop candidates' confidence for working independently. Communication skills will be developed through shared ideas and experiences, and through the opportunity to offer opinions, comment and constructive criticism on the ideas of others. To encourage candidate participation and motivation, the pace of work, level of challenge and prior knowledge and experiences of candidates should be considered.

National Unit Specification: support notes (cont)

UNIT Lifestyle and Consumer Technology: Product Development (Intermediate 2)

Candidates' skills of evaluation can be developed by encouraging them to look at commercial products. Open discussion and brainstorming can stimulate ideas which may lead to the group to formulating opinions about: the product specification; the target group; the materials used; how successful the product has been. A selection of commercially manufactured products and their packaging, should be available for candidates to analyse, make use of and evaluate.

It is important that candidates are aware of food safety and hygienic practices in food production in the domestic context.

An integrated approach to delivery of the content is recommended, whereby several aspects may be covered during practical application.

GUIDANCE ON APPROACHES TO ASSESSMENT FOR THIS UNIT

Whilst it is possible to devise test instruments for each of the unit outcomes, it is preferable to use ones which encompass more than one outcome. This approach will reduce the demands of assessment on candidates and leave more time for learning and teaching. The evidence requirements fall into two categories:

- practical activity
- demonstration of the knowledge and understanding which underpins the practical activity

While attainment of outcomes 1 and 2 need only be demonstrated on one occasion, it is unlikely that candidates would be ready for assessment until the latter stages of delivery. Assessment could take place as an end of unit test. However, it is possible for evidence to be gathered when candidates are carrying out practical exercises throughout the unit.

Outcome 3

In the interests of confidentiality and national standards, it would be more appropriate for all candidates to carry out this assessment item at the same time within a teaching group.

Further guidance and exemplification on appropriate evidence will be provided in the Subject Guide.

The delivery and assessment of this unit is open to alternative methods to support the inclusion of all candidates. Examples include:

- extension to the notional design length
- use of technology to record information/instruction and to support assessment situations
- appropriate level of teacher/lecturer or auxiliary support in practical activities
- use of specialist equipment

National Unit Specification: support notes (cont)

UNIT Lifestyle and Consumer Technology:
 Product Development (Intermediate 2)

SPECIAL NEEDS

This unit specification is intended to ensure that there are no artificial barriers to learning or assessment. Special needs of individual candidates should be taken into account when planning learning experiences, selecting assessment instruments or considering alternative outcomes for units. For information on these, please refer to the SQA document *Guidance on Special Assessment Arrangements* (SQA, 2001).