



AN ROINN OIDEACHAIS
AGUS EOLAÍOCHTA

HOME ECONOMICS

Leaving Certificate

Ordinary Level and Higher Level

GUIDELINES FOR TEACHERS

THESE GUIDELINES

INTRODUCTION

practical approach

SYLLABUS STRUCTURE

*Home Economics content
core and electives*

DESIGNING PLANS OF WORK

Key Themes

- *exemplar plan of work*
- *check-lists*

EXEMPLAR MATERIAL

**FOOD STUDIES
ASSESSMENT OF PRACTICAL
COURSE WORK**

**ASSESSMENT OF THE
PRACTICAL COMPONENT OF
THE TEXTILES, FASHION
AND DESIGN ELECTIVE**

RESOURCE MATERIAL

PLUS

*helpful hints,
real samples,
lots, lots more...*

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Section one

introduction to the guidelines



1. INTRODUCTION TO THE GUIDELINES

INTRODUCTION TO THE SYLLABUS

There were formerly two home economics syllabuses: home economics (general) and home economics (scientific and social). The new syllabus replaces these two syllabuses, incorporating the best aspects of both. The use of the core and electives structure adopted helps to facilitate this by offering the option of studying certain aspects of the syllabus, for example textiles, fashion, and design, without making them compulsory.

The syllabus has been designed to provide articulation with and progression from the Junior Certificate home economics syllabus that was introduced into schools in September 1991. All areas of the syllabus are extensions of areas covered in the Junior Certificate course. However, in the interest of providing a sufficient depth of treatment of topics, certain areas covered in the Junior Certificate course have not been developed in this syllabus, for example craftwork and childcare.

The new syllabus brings changes in structure and format, approach and emphasis, as well as content. All these changes will be referred to in more detail later.

The aims of the syllabus are based on the personal development and interests of the students and their vocational, further education, training and employment needs. The content of the syllabus is based on these needs and interests.

CHANGES IN EMPHASIS IN THE NEW SYLLABUS

While the emphasis in any home economics course is on personal development and resource management in relation to self and home, great effort has been put into extending and applying the knowledge, understanding and skills acquired by students to aspects of the food, clothing, textile and craft industries, tourism, and social and health services.

The emphasis in this syllabus is on the acquisition of management theory and skills and the application of the principles of management to all areas of the syllabus. These skills will enable students to apply these principles to all areas of their lives, both at present and in the future. Management is the central concept that permeates the syllabus.

The new syllabus also emphasises the vocational dimension of the subject. Where appropriate, reference is made to the commercial and vocational applications of topics studied. Reference is also made to relevant aspects of the food, textiles and other related industries.

There is also greater emphasis on student involvement in learning activities. This is supported by the *activities to support the course objectives* column in the syllabus, which makes suggestions for a variety of activities that could be used by teachers to involve students more actively in the learning process. The suggestions made are by no means exhaustive. Neither is it intended that all the activities would be attempted.

INTEGRATION

As all the elements of home economics are interrelated, it is recommended that the subject be taught within a framework that integrates the related elements and processes within each of the three areas of the core particularly. In the second year of study, when the elective has been selected, it will be possible to make connections between the elective and the core also. Some ideas about how this might be achieved are included in section 4 'Designing Plans of Work'. Further work on the principle of integration will be included in the programme of in-career training for teachers.

DIFFERENTIATION BETWEEN ORDINARY AND HIGHER LEVELS

The syllabus has been designed as a common syllabus for Higher and Ordinary levels. Some material, which is an extension of Ordinary level material, has been designated Higher level only. This material is printed in black text throughout the syllabus.

Higher level students will also be expected to demonstrate a greater depth of understanding of concepts, processes and principles and a greater degree of proficiency in skills. The assessment of the syllabus will reflect the two levels.

The syllabus has been designed as a common level syllabus to facilitate the teaching and learning of Home Economics in mixed ability classes, where both Ordinary and Higher level students are taught in the same class.

Material that relates to Higher level only is printed in green text throughout these guidelines.

TEACHING METHODOLOGIES

The underlying concepts for the teaching of the material in this syllabus are integration and active learning methods. There is a large emphasis on the practical elements of the syllabus, and this should be reflected in the way the syllabus is taught.

The design of the syllabus, while it is structured in a linear format, facilitates these underlying concepts by the inclusion of the last two columns on each page. The *activities to support the course objectives* column makes suggestions for different activities that the students could be engaged in that would make their learning more active, and the *links to other parts of the syllabus* column will help to facilitate integration.

It is important to provide a range of learning styles that will help students to develop a wide range of skills, both practical and procedural.

Consideration should be given to the change of emphasis in the new syllabus when deciding the most suitable learning strategies.

This section will be further developed during the programme of in-career training for teachers.

TIMETABLING

The syllabus has been designed for 180 hours of class contact time (the equivalent of 270 class periods of 40 minutes each, or five class periods per week). At least one double period is essential for the satisfactory execution of practical activities.

PARTICIPATION BY BOYS AND GIRLS

The low participation of boys in Leaving Certificate home economics was considered during the development of the syllabus, and great effort has been made at all stages to ensure that the content is neutral with regard to participation by boys and girls. The existence of the three electives will allow teachers to choose the elective most suitable for a particular class, giving consideration to the interests of the group or local interests.

GUIDELINES

These guidelines do not attempt to cover all the issues, that teachers will need to consider when planning for the introduction of the new syllabus. They are intended to give an overview of the direction of the new syllabus and an indication of the depth of treatment required; they will be further developed through the process of in-career training.

The new syllabus and Guidelines for Teachers promote home economics - scientific and social, as a very relevant and important subject for all young people. It is concerned with the way individuals and families manage their resources to meet physical, emotional, intellectual, social and economic needs. It prepares students of both sexes for life in a consumer-oriented society and provides a good knowledge and skills-based learning foundation for those seeking employment in a wide range of careers.

These draft guidelines are designed to support teachers in implementing the Home Economics syllabus in the classroom and in designing teaching and learning that will meet the aims and objectives of the syllabus.

These guidelines are issued in draft form. It is envisaged that the experience of implementing the syllabus in schools and classrooms over the period of its introduction can be integrated into the guidelines in their final form.

Section two

new and revised sections
of the syllabus



2. NEW AND REVISED SECTIONS OF THE SYLLABUS

The new home economics syllabus has been designed to provide students with the knowledge, skills and attitudes that will enable students to take control of their own lives at present and in the future. It is concerned with the way individuals and families manage their resources to meet physical, emotional, intellectual, social and economic needs.

The emphasis in the syllabus is on the acquisition of management theory and skills and the application of the principles of management to all areas of the syllabus. There is also increased emphasis on practical activities and the vocational dimension of the subject. In recognising these changes of emphasis it was necessary to make a number of changes to the content of the syllabus.

The Course Committee tried to ensure that the new syllabus would not be overloaded with material. To ensure this, some material was deleted and other material was presented in electives, so that all students would not be expected to cover a very wide range of topics in great detail.

ONE SYLLABUS IN PLACE OF TWO

The most significant change is that the new syllabus, home economics, scientific and social will replace the two existing syllabuses - home economics (general) and (scientific and social). It was decided in the course of the consultation process that there was a lot of duplication of material in the two syllabuses and that the number of students at present studying home economics (general) was not sufficient to continue with this syllabus.

NEW TOPICS

The following topics are new to the syllabus core:

FOOD

- Factors affecting food choices
- Current food habits and trends
- Current dietary guidelines
- Energy values of individual foods and meals
- Maintaining a healthy body weight
- The Irish diet
- Cis and trans fatty acids

- The Irish food industry
- Critical evaluation of dishes or meals prepared and cooked and the conducting of comparative assessments of home-made and commercial products or meals
- Profiles of three types of processed food
- HACCP
- The role of national agencies in food safety
- Most of the development in the food area has been to encourage a more integrated approach and to change the emphasis to the management of resources to meet specific needs
- Microbiology and food spoilage is more specific, and much of the microbiology will be examined at Higher level only
- Relevant legislation has been updated.

RESOURCE MANAGEMENT AND CONSUMER STUDIES

- The management process and its application
- Textiles in the home
- Small claims procedure.

SOCIAL STUDIES

- Exploration of a number of definitions for the family

A lot of the social studies material, that was in the old course has now been updated and put into the social studies elective. Therefore those students who do not take this elective will study a small amount of social studies: the family in society. All relevant legislation has been updated.

THE ELECTIVES

(Only one of these electives will be studied by each class group.)

HOME DESIGN AND MANAGEMENT

- Housing styles
- The provision of housing
- Energy efficiency.

TEXTILES, FASHION, AND DESIGN

- All new to the scientific and social syllabus.

SOCIAL STUDIES ELECTIVE

The topics covered in the social studies elective are:

- Social Change and the Family
- Education
- Work
- Leisure
- Unemployment
- Poverty
- Reconciling employment with family responsibilities
- Statutory and community responses to creating employment and eliminating poverty.

ALL AREAS

Differentiation of Higher and Ordinary level material is more specific.

SECTIONS REMOVED OR REDUCED INCLUDE:

FOOD

- Tests to show the presence of protein, fats and carbohydrates in food.

RESOURCE MANAGEMENT AND CONSUMER STUDIES

- The section on household appliances has been reduced to the study of four appliances.

HUMAN PHYSIOLOGY

The systems of the body have been deleted from the syllabus. Only those sections that were necessary to support other areas of the syllabus have been retained. For example, digestion and absorption of foods have been retained. The Course Committee believe that the amount of physiology covered at Junior Certificate is sufficient as a basis for teaching the Leaving Certificate syllabus. They also believe that to include the systems as they were on the old syllabus would be very time-consuming and irrelevant to the aims and objectives of the new syllabus.

SOCIAL STUDIES

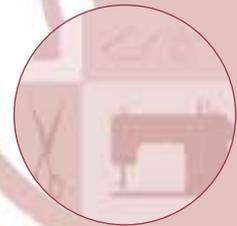
The course committee decided that it is essential to provide a clear focus to the social studies sections of the course. Therefore, the social studies content in the core, concentrates on the family in society. The social studies elective deals with a number of social issues that relate to the family, for example social change, work, unemployment, and poverty. The following topics have been removed:

- migration and emigration
- social problems: the list has been reduced to facilitate a more detailed depth of treatment of those topics that are included
- alcohol, drugs and gangs have been removed.

THE HOME

Most of the home management material has been moved into the home design and management elective. Areas that have been removed include drainage, composition of floor coverings, and composition of cleaning materials.

Section three syllabus structure



3. SYLLABUS STRUCTURE

SYLLABUS STRUCTURE AND FORMAT

The syllabus consists of a core and three electives.

The core consists of three areas:

Food studies	45%
Resource management and consumer studies	25%
Social studies	10%

There are three electives from which **the teacher and class group must choose one**. The electives are extensions of content contained in the core and provide students with the opportunity to study certain topics in more depth.

The electives are:

Home design and management	20%
Textiles, fashion, and design	
Social studies	

The syllabus is presented in four columns under the headings:

- topic
- content—expected knowledge and understanding
- activities to support the course objectives
- links to other parts of the syllabus.

The **topic** column gives the main area of study being referred to, for example **Protein**. Each topic also has a reference number, for example **1.1.2 Protein**. These reference numbers are included to facilitate cross-linking between different areas of the syllabus. They will also be used in the guidelines to refer to specific areas of the syllabus. Teachers can also use them when planning programmes of work to simplify finding content areas in the syllabus.

The **content—expected knowledge and understanding** column gives further details of the depth of treatment required for the particular topics. Content required for Higher level only is presented in black text in this column. The content outlined in this column is what the students will be required to know and understand for examinations and around which their skills, competence and attitudes should be based.

The **activities to support the course objectives** column is included to assist teachers in achieving the aims and objectives of the syllabus. The aim of the activities included is to encourage the use of a variety of learning methodologies and to give some examples of how and where these learning methodologies might be used in the delivery of the syllabus content. The activities suggested are not prescriptive. Alternative and additional suitable activities may also be used.

The **links to other parts of the syllabus** column is included as an aid to teachers in forming links between different areas of the syllabus and to facilitate the principle of integration that is crucial to the successful implementation of the aims and objectives of the syllabus. Reference numbers are included here to further facilitate this principle.

The syllabus structure and format described above, has been designed to offer more choice and provide more clarity on how the course objectives may be realised.

The syllabus is presented in an expanded format that should clarify for teachers, when planning their programmes of work, exactly what material should be covered. For this reason these Guidelines for Teachers do not go into a lot of detail in relation to content.

CORE

FOOD STUDIES (45%)

OBJECTIVES

- To enable students to have the knowledge and understanding of food and food-related issues necessary for personal and family health and to apply this knowledge and understanding to the wider area of the food industry
- To enable students to develop and extend organisational, manipulative and creative skills in relation to the preparation, cooking and presentation of food

This area of the core should not be taught in isolation but should be integrated with the other two core areas and the selected elective, as appropriate.

Practical and investigative work should be an integral part of this area of the syllabus.

TOPICS COVERED

The main areas in the food studies area are:

1.1 Food science and nutrition

This area includes a small section on food choices and the factors that affect our choice of foods, the food constituents (which are covered in some detail), and water.

1.2 Diet and health

This area includes energy, dietary guidelines, dietary and food requirements, and a section on the Irish diet.

1.3 Preparation and processing of food

This is the most extensive area of food studies and includes the Irish food industry, food commodities, meal management and planning, food preparation and cooking processes, food processing and packaging, food additives, food legislation, food spoilage, preservation, and food safety and hygiene.

LINKS WITH OTHER PARTS
OF THE SYLLABUS

This area of the syllabus can be linked with management (2.1), household technology (2.1.5), consumer choices (2.2.1), consumer responsibility (2.2.2), consumer protection (2.2.3), and the family (3.1).

Many links can also be made between different areas within the food studies area; for example, food commodities (1.3.2) can be linked with food spoilage (1.3.8).

It may also be possible to make links between the food studies area and the chosen elective, depending on the elective. For example, there will be few apparent links with the home design and management elective and the textiles, fashion, and design elective, but the whole area of management (2.1) can be linked with reconciling employment with family responsibilities (6.3.2) in the social studies elective.

ASSESSMENT

The food studies area of the core will be assessed in the following way:

- on the written paper, both on Section A (short answer) and Section B (long answer) questions
- as part of the assessment of practical coursework (all assignments will be based on food studies, although other areas of the core will be integrated also).

**RESOURCE MANAGEMENT AND
CONSUMER STUDIES (25%)**

OBJECTIVES

- To enable students to develop and apply the management skills necessary for the effective organisation and management of available resources to satisfy personal and family needs
- To enable students to have the knowledge and skills necessary to be discerning and responsible consumers

This area of the core should not be taught in isolation but should be integrated with the other two core areas and the selected elective, as appropriate.

Investigative work and active learning methods should be an integral part of this area of the syllabus.

TOPICS COVERED

The main areas in the resource management and consumer studies area are:

2.1 Family resource management

This area includes components of management, attributes affecting management, management of household financial resources, housing, household technology and textiles (a very short section covering textiles as a resource for household and clothing purposes).

2.2 Consumer studies

This area includes a brief section on consumer choices and more substantial sections on consumer responsibility and consumer protection.

LINKS WITH OTHER PARTS OF THE SYLLABUS

This area of the syllabus can be linked with food choices (1.1.1), preparation and processing of food (1.3), and the family (3.1).

Many links can also be made between different areas within the resource management and consumer studies area; for example, textiles (2.1.6) can be linked with management of household financial resources (2.1.3) and consumer choices (2.2.1).

It is also possible and advisable to make links between this area of the syllabus and the chosen elective. All three electives can be linked to this area.

ASSESSMENT

The resource management and consumer studies area of the core will be assessed in the following way:

- on the written paper, both on Section A (short answer) and Section B (long answer) questions
- as part of the practical assessment (all assignments will be based on food studies, and other areas of the core will be integrated).

SOCIAL STUDIES (10%)

OBJECTIVE

- To enable students to understand sociological factors affecting the individual and families

This area of the core should not be taught in isolation but should be integrated with the other two core areas and the selected elective.

Investigative work and active learning methods should be an integral part of this area of the syllabus.

TOPICS COVERED

There is one main area in the social studies area:

3.1 The family in society

This area includes a small glossary called introducing sociological concepts, defining the family, family structures, family functions, marriage, family as a caring unit and family law.

Groups selecting the social studies elective can study social studies in more depth.

LINKS WITH OTHER PARTS OF THE SYLLABUS

This area of the syllabus can be linked with management (2.1), dietary and food requirements (1.2.3) and meal management and planning (1.3.3).

Links can also be made between different areas within the social studies area, for example, marriage (3.1.5) can be linked with family structures (3.1.3) and family law (3.1.7).

It may also be possible to make links between the social studies area and the chosen elective. In particular, there will be strong links with the social studies elective. There are also links with the home design and management elective, for example, housing provision (4.1.2).

ASSESSMENT

The social studies area of the core will be assessed in the following way:

- on the written paper, Section B (long answer) questions.

ELECTIVES

**ELECTIVE 1:
HOME DESIGN
AND MANAGEMENT**

AIM

- To allow students to further develop their knowledge, understanding and skills in relation to certain aspects of the core, particularly resource management and consumer studies

OBJECTIVES

- To provide students with knowledge and understanding of the design, building and management of the home to meet individual and family needs and with consideration for environmental and social responsibility
- To enable students to develop creative ability and respond to design through the design process and the evaluation of design

Investigative work and active learning methods should be an integral part of this area of the syllabus.

TOPICS COVERED

The main areas in the home design and management elective are:

4.1 Housing

This area includes a small section on housing styles and a section on housing provision.

4.2 House building and design

This section includes planning requirements, professional services, and house design.

4.3 Designing the house interior

This area includes the elements and principles of design and their application to the home and criteria for the selection of materials.

4.4 The energy-efficient home

Energy supplies and their effects on the environment, potential energy inefficiencies and strategies for improving efficiency.

4.5 Systems and services

This area includes electricity, water, heating, ventilation, and lighting.

LINKS WITH
OTHER PARTS
OF THE SYLLABUS

While it will be more practical to teach this elective as an individual unit, linkages should be made between the elective and relevant areas of the core.

Most of the links made between this elective and the core will be with the resource management and consumer studies section. Links can be made with family resource management (2.1), housing (2.1.4), household technology (2.1.5), textiles (2.1.6), consumer studies (2.2), and the family (3.1).

ASSESSMENT

The assessment of this elective will be by terminal written examination only.

**ELECTIVE 2:
TEXTILES, FASHION,
AND DESIGN**

AIM

- To allow students to further develop their knowledge, understanding and skills in relation to certain aspects of the core, particularly textiles and design

OBJECTIVES

- To provide students with the knowledge and understanding of the design, construction and appraisal of clothing, giving consideration to design and scientific factors
- To enable students to develop creative ability and to respond to design through the exploration of materials and process
- To enable students to develop and extend design, manipulative and creative skills

Practical and investigative work should be an integral part of this elective.

TOPICS COVERED

The main areas in the textiles, fashion, and design elective are:

5.1 Contemporary clothing and fashion

A brief section on the social, economic and industrial influences on the design and construction of clothing and a critical evaluation of fashion trends.

5.2 Textile science

This section includes details of fibres, fabric profiles, and fabric construction techniques.

ELECTIVE 3: SOCIAL STUDIES

AIM

- To allow students to further develop their knowledge, understanding and skills in relation to certain aspects of the core, particularly social studies

OBJECTIVES

- To provide students with knowledge and understanding of the social issues that relate to the family, education, work, unemployment, leisure, and poverty
- To enable students to develop the skills to analyse and interpret material as a basis for expressing and communicating balanced viewpoints

Investigative work and active learning methods should be an integral part of this area of the syllabus.

TOPICS COVERED

The main areas of the social studies elective are:

- 6.1 Social change and the family**
A brief introduction investigating the impact of social and economic change on family life.
- 6.2 Education**
The purpose of education and its provision in Ireland, factors that influence educational achievement, and equality of opportunity.
- 6.3 Work**
This section includes attitudes to work, changes in patterns of work, and the role of unpaid and voluntary work. Part of

this section is devoted to reconciling employment with family responsibilities.

- 6.4 Leisure**
Influences on leisure patterns and the role of leisure in the development of the individual. There is also a section on evaluating the leisure facilities available in the community.
- 6.5 Unemployment**
Definition, causes, and effects.
- 6.6 Poverty**
This section includes concepts of poverty and causes and effects.
- 6.7 Statutory and community responses to creating employment and eliminating poverty**
Social Welfare assistance and benefits and statutory and community schemes.

LINKS WITH OTHER PARTS OF THE SYLLABUS

While it will be more practical to teach this elective as an individual unit, linkages should be made between the elective and relevant areas of the core.

Most of the links between this elective and the core will be with the social studies section. Links can be made with family resource management (2.1), consumer choices (2.2.1), the family (3.1), and marriage (3.1.5). Many links can also be made between different areas within the elective.

ASSESSMENT

The assessment of this elective will be by terminal written examination only.

5.3 Design evaluation and garment construction

The application of the elements and principles of design to garment construction and evaluation.

5.4 The clothing and textile industries

A brief overview of the clothing and textile industries in Ireland.

LINKS WITH OTHER PARTS OF THE SYLLABUS

While it will be more practical to teach this elective as an individual unit, linkages should be made between the elective and relevant areas of the core.

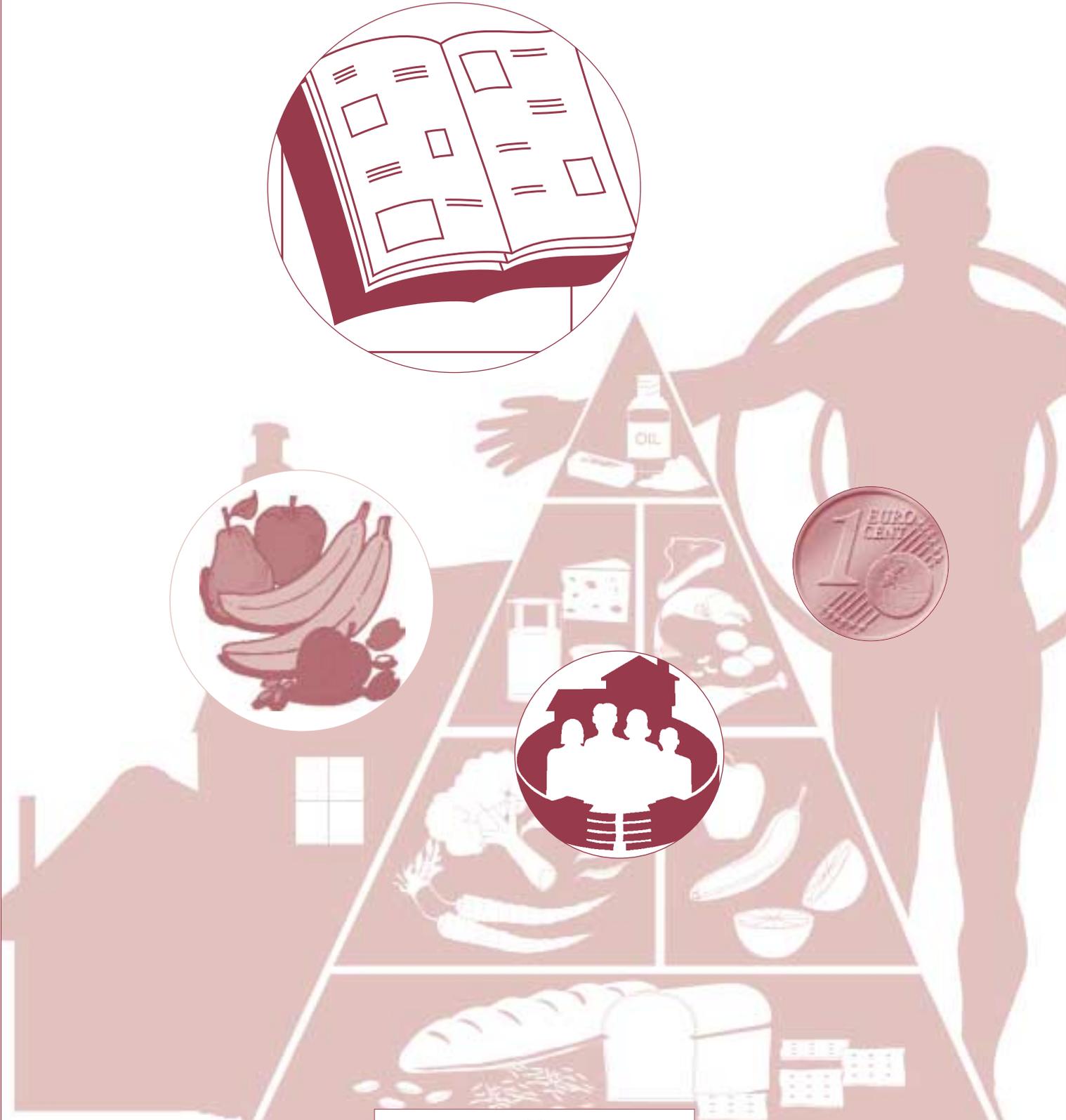
Most of the links between this elective and the core will be with the resource management and consumer studies section. Links can be made with family resource management (2.1), household technology (2.1.5), textiles (2.1.6), and consumer studies (2.2).

ASSESSMENT

The textiles, fashion, and design elective will be assessed in the following way:

- on the written paper (10% of the total mark)
- by a practical assessment.
Candidates will be required to produce a design folder for a garment or outfit and to construct one garment that demonstrates the prescribed process or processes (10% of the total mark).

Section four designing plans of work



4. DESIGNING PLANS OF WORK

KEY THEMES

The three areas of the core provide the basis for the four key themes, which permeate all areas of the course.

The electives are extensions of these themes, in particular management of resources, consumer competence and responsibility, and family social issues. (See Fig. 4.1 below)

Areas of the core	Key themes	Electives
Food studies and health	Food, diet and health	
Resource management and consumer studies	Management of resources Consumer competence and responsibility	Home design and management Textiles, fashion, and design
Social studies	Family social issues	Social studies

Fig. 4.1

Although each of the key themes is based on a particular area of the core, they are also very important in other areas and in the electives. For example, while the theory of the management of resources is covered in the resource management and consumer studies section of the core, its practical application is important in that section and also in the food studies (e.g. planning and preparation of meals) and the social studies (e.g. gender issues in the family) areas. It will be equally important in each of the electives.

Likewise, while the theoretical content relating to food, diet and health is found in the food studies area, it also has relevance in the social studies area (e.g. family needs) and the resource management and consumer studies area (e.g. household technology and consumer choices).

USING THE KEY THEMES TO FACILITATE INTEGRATION

The integrated approach recommended in the syllabus can be facilitated by centring all learning experiences on the four key themes.

The key themes can be integrated through the use of a wide variety of tasks and activities, including practical food assignments, problem-solving, management applications, and case study tasks, to fulfil the objectives of the syllabus.

Fig. 4.4 shows the key themes across the top of the page and the syllabus objectives down the left-hand side. Some examples of tasks and activities are given down the right-hand side of the table.

Tasks can be designed to include all four key themes in a unit of work, and over a series of tasks all course objectives will be fulfilled. It is of course desirable to fulfil a number of the course objectives in as many tasks as possible, as these need to be constantly reinforced.

This system can be used when planning units of work, and then the combination of all the units would make up the overall programme of work for the year. In this case it is important to use the model in conjunction with a check-list to ensure that all areas of the syllabus are covered.

It is important to note that the model is intended as an example only and that it is neither prescriptive nor intended as a course outline.

SAMPLE WORK SKELETON FOR THE LEAVING CERTIFICATE SYLLABUS

Year 1	Term 1 Number of weeks: 15	Term 2 Number of weeks: 11	Term 3 Number of weeks: 5
	<p>Introductory cookery class</p> <p>Main syllabus area: Food science and diet and health—integrating resource management, consumer studies, and social studies</p> <p>Assignments: 1 or 2</p>	<p>Main Syllabus Area: Food science and diet and health plus integrated topics</p> <p>Assignments: 1 or 2</p>	<p>Main Syllabus Area: Resource management and consumer studies</p> <p>Assignments: 1</p>
Year 2	Term 1 Number of weeks: 15	Term 2 Number of weeks: 10	Term 3 Number of weeks: 6
	<p>Main syllabus areas: Food processing Social studies—core</p> <p>Assignments: 1 or 2</p> <p>Begin elective</p>	Complete elective	Revision

Fig. 4.2

SAMPLE WORK SKELETON FOR THE LEAVING CERTIFICATE SYLLABUS SCHOOL YEAR TO

Year 1	Term 1 Number of weeks:	Term 2 Number of weeks:	Term 3 Number of weeks:
	Main syllabus area:	Main Syllabus Area:	Main Syllabus Area:
	Assignments	Assignments	Assignments
Year 2	Term 1 Number of weeks:	Term 2 Number of weeks:	Term 3 Number of weeks:
	Main syllabus areas:	Main syllabus areas:	Main syllabus areas:
	Assignments	Assignments	Assignments

Fig. 4.3

Key themes → Objectives ↓	Food, diet, and health	Management of resources	Consumer competence and responsibility	Family social issues	Examples of tasks and activities
Nutritional needs	<ul style="list-style-type: none"> Balanced diet, nutrients required, cooking skills Special requirements 	<ul style="list-style-type: none"> Costing Budgeting Effective use of equipment and fuel Time management 	<ul style="list-style-type: none"> Control of waste Shopping for best value Cost of foodstuffs 	<ul style="list-style-type: none"> Family incomes Family functions Older people within the family 	<ul style="list-style-type: none"> Sample Food assignment 1 p. 34, application of nutritional principles
Technological advances	<ul style="list-style-type: none"> Modified atmosphere packaging Effect on shelf life of foods 	<ul style="list-style-type: none"> Overpackaging Saving time in family work schedules 	<ul style="list-style-type: none"> Expense of packaging Disposal of rubbish 		<ul style="list-style-type: none"> Investigation of packaging used on prepared consumer foods
Elements and principles of design	<ul style="list-style-type: none"> Uses of machines in food preparation Design and function Properties of food being used, e.g. eggs 	<ul style="list-style-type: none"> Contribution to management of the home Working principles and use of appliances 	<ul style="list-style-type: none"> Costing of various appliances Factors to consider when buying 		<ul style="list-style-type: none"> Evaluation of a small household appliance—food processor
Sociological factors	<ul style="list-style-type: none"> Dietary needs of the elderly and how these might be met 	<ul style="list-style-type: none"> Different accommodation options 	<ul style="list-style-type: none"> Effect of older family members on household budget 	<ul style="list-style-type: none"> Family as a caring unit Caring for the elderly 	<ul style="list-style-type: none"> Accommodation options for an older family member
Management processes	<ul style="list-style-type: none"> Meal planning Meal preparation 	<ul style="list-style-type: none"> Shopping for food and other resources, work schedules, control of finances 	<ul style="list-style-type: none"> Control of waste Recycling 	<ul style="list-style-type: none"> Family structures Family roles Sex roles 	<ul style="list-style-type: none"> Planning a schedule Family tasks in the house
Environmental awareness	<ul style="list-style-type: none"> Evaluation of the packaging used on one day's food and the amount of waste produced 	<ul style="list-style-type: none"> Family washing, heating the home—effect on the environment 	<ul style="list-style-type: none"> Responsibilities to the environment 		<ul style="list-style-type: none"> Study of a range of home activities and their effects on the environment
Creativity	<ul style="list-style-type: none"> Eggs—composition properties Effects of cooking Food value 	<ul style="list-style-type: none"> Organising a work plan Use of equipment—whisking etc. 	<ul style="list-style-type: none"> What to look for when shopping for eggs 		<ul style="list-style-type: none"> Sample Food assignment 2 p. 34, sweet and savoury egg dishes
Safety and hygiene	<ul style="list-style-type: none"> Food safety and hygiene principles Use of HACCP Food poisoning 	<ul style="list-style-type: none"> Importance of hygiene and safety considerations in the management of the home 	<ul style="list-style-type: none"> Food hygiene regulations Safe practices in relation to food preparation 	<ul style="list-style-type: none"> Importance of food safety in relation to vulnerable family members, e.g. the young, the elderly 	<ul style="list-style-type: none"> Planning, preparing and presenting a chicken dish and an accompanying salad
Skills—procedural and manipulative	<ul style="list-style-type: none"> Menu planning skills Special diets Skills in preparation and presentation of a meal Protein—complementary value 	<ul style="list-style-type: none"> Planning and following a work plan Organising shopping 	<ul style="list-style-type: none"> Costing a meal Investigation of suitable foods, including convenience foods 		
Communications	<ul style="list-style-type: none"> Different eating patterns in the various societies investigated 	<ul style="list-style-type: none"> How these different societies carry out family roles; compare them with Irish families 		<ul style="list-style-type: none"> Investigation: films, literature etc. of different types of families in other societies 	<ul style="list-style-type: none"> Group activity: investigation of family situations in other societies

Fig. 4.4: Using key themes to facilitate integration

Key themes → Objectives ↓	Food, diet, and health	Management of resources	Consumer competence and responsibility	Family social issues	Examples of tasks and activities
Nutritional needs					
Technological advances					
Elements and principles of design					
Sociological factors					
Management processes					
Environmental awareness					
Creativity					
Safety and hygiene					
Skills—procedural and manipulative					
Communications					

Fig. 4.5: Using key themes to facilitate integration

*E*xemplar plan of work

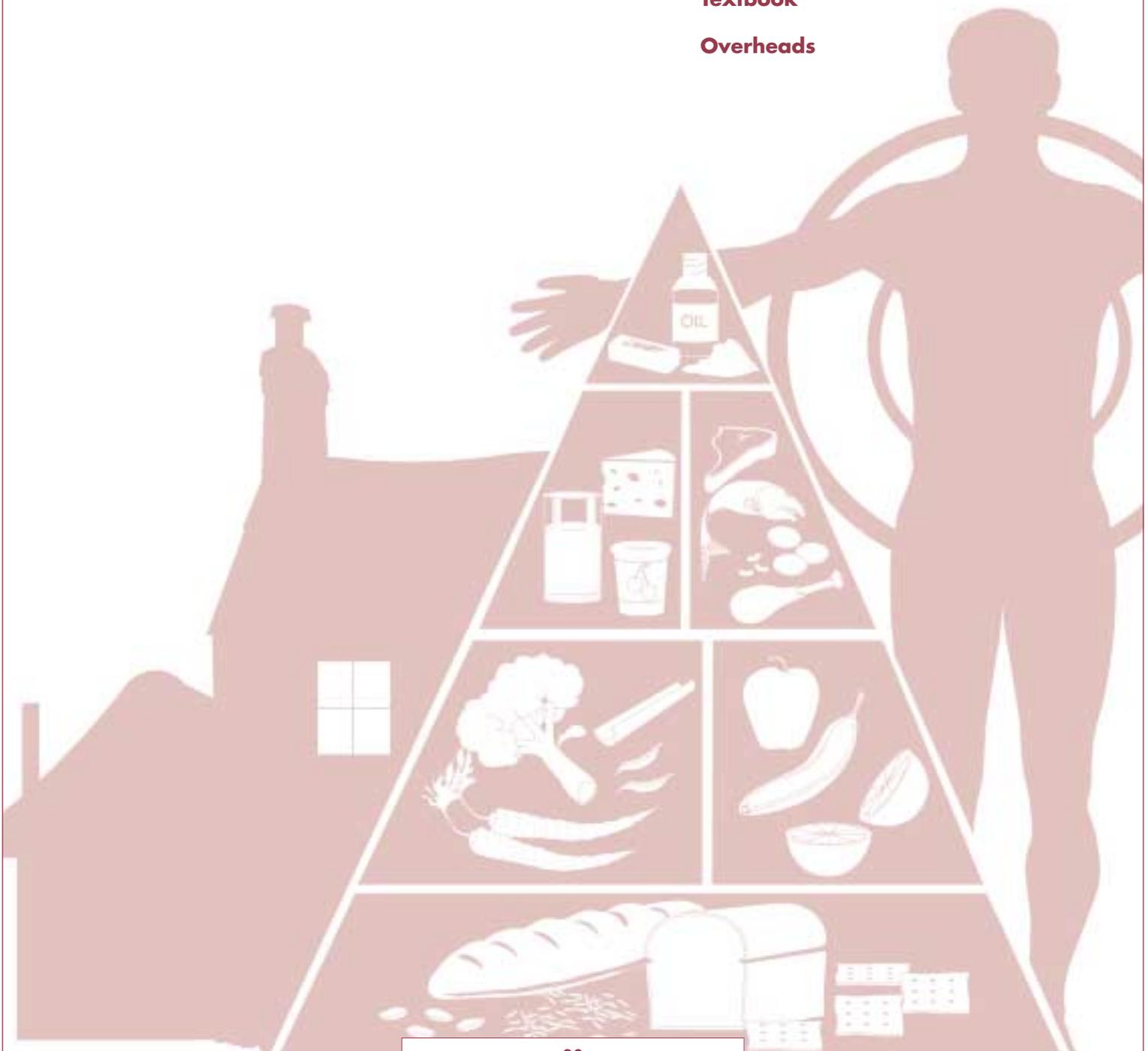
RESOURCES

Syllabus

Teacher guidelines

Textbook

Overheads



DEVELOPING A PLAN OF WORK

A plan of work is a written document that describes the units of work planned for students over a specific period. Before developing any plan of work for the new syllabus, the following points must be considered:

- general aims and objectives
- assessment objectives
- the main change of emphasis
- the four key themes that permeate the syllabus
- teaching methodologies that are recommended for the syllabus.

In addition to these points each teacher should look at their own school with regard to

- the provision of resources in the school
- the allocation of class contact hours on the timetable
- the ability and previous knowledge of the students.

All these points determine each individual plan of work. The plan of work should also allow a degree of flexibility that will accommodate the unforeseen delay or change needed during term time.

This exemplar plan of work is not prescriptive. It is intended to show how integration between the three core areas can be achieved and how classroom activities can be planned around the course objectives.

EXPLANATORY POINTS ON THE EXEMPLAR PLAN OF WORK

The plan of work in the exemplar is based on:

Class group: Year 1 (fifth year)

Time allocation: 12 weeks

Main theme: Introduction to food studies, showing integration of resource management, consumer studies and social studies

CHECK-LISTS

A series of check-lists has been developed for use in conjunction with this plan of work.

The content of related elements of the course are integrated where possible, so one may find it difficult to keep track of the areas covered. As a topic is covered in class, it can be recorded on the appropriate check-list by ticking or dating the appropriate topic. This will ensure that all areas of the syllabus are covered. **It is important to note that each check-list is a summary of syllabus topics. One must always refer to the syllabus to check the exact detail that is required for each topic.**

LAYOUT OF EXEMPLAR PLAN OF WORK

Content		Class activity	Homework	Key themes	Resources
Food	Resource management and social studies				

The **content** column lists the main topics that will be covered in the class period. Many elements of the home economics course are interrelated, so topics should be integrated where an obvious relationship exists.

The **classroom activity** and **homework** columns detail the main student tasks and learning experiences. These learning experiences have been constructed around as many of the four key themes

as possible. These activities encourage maximum involvement by students and include a variety of practical activities. A number of course objectives are fulfilled and reinforced in each task.

The **key themes** column emphasises the themes covered in each class. It must be remembered that all four themes may not be included in every class activity. However, over a series of classes the students will be involved in tasks that centre on all four themes.

Resources are built up over a period of time. Additions can be made to this column as the work progresses.

EXEMPLAR PLAN OF WORK

Content		Class activity	Homework	Key themes	Resources
Food	Resource management and social studies				
<p>Introduction to food</p> <ul style="list-style-type: none"> • The Irish diet (1.2.4) • Factors affecting food choice • Changes in food and eating patterns from the beginning of the twentieth century • Dietary guidelines 		<p>Discussion:</p> <ul style="list-style-type: none"> • Types of food eaten and factors affecting choice <p>Activity:</p> <ul style="list-style-type: none"> • Draw up a personal menu for one day and compare it with a daily menu from the early twentieth century • Food used • Cooking methods and cost 	<ul style="list-style-type: none"> • Evaluation of menus with regard to dietary guidelines 	<ul style="list-style-type: none"> • Food and health • Consumer competence • Resource management • Family social issues 	<ul style="list-style-type: none"> • Library • Old cookery books • Work sheet: —Menu from the twentieth century • All-Ireland Food Consumption Survey, 2000 • Food magazines
	<p>Introduction to social studies</p> <ul style="list-style-type: none"> • Roles and responsibilities of family members (3.1.6) • Role conflict (3.1.6) • Gender issues (3.1.6) • Influence of foreign food cultures on the Irish diet 	<p>Discussion:</p> <ul style="list-style-type: none"> • Gender issues relating to food purchase and preparation • Changes in role definition <p>Design a questionnaire:</p> <ul style="list-style-type: none"> • Foods parents consider new since their childhood • New foreign restaurants locally • Foreign foods on family menu <p>Discussion on survey</p>	<ul style="list-style-type: none"> • Using questionnaire interview parent, grandparent, or elderly person, etc. • Using the questionnaire —write a commentary on the main points for class discussion 	<ul style="list-style-type: none"> • Food and health • Consumer competence • Resource management • Family social issues 	<ul style="list-style-type: none"> • Library • Old cookery books • Work sheet: —Menu from the twentieth century • All-Ireland Food Consumption Survey, 2000 • Food magazines
<p>Balanced eating</p> <ul style="list-style-type: none"> • Essential components of a balanced diet • Nutritional guidelines • Use of RDAs • Use of food tables 		<p>Discussion:</p> <ul style="list-style-type: none"> • Summarise main findings of homework <p>Group work:</p> <ul style="list-style-type: none"> • Interpretation of food tables 	<ul style="list-style-type: none"> • Analyse the nutritional label of a common processed food; refer to protein, fat and carbohydrate content and compare RDAs for a teenager 	<ul style="list-style-type: none"> • Food, diet, and health • Consumer competence 	<ul style="list-style-type: none"> • Food tables • All Ireland Food Consumption Survey 2000

Content		Class activity	Homework	Key themes	Resources
Food	Resource management and social studies				
	<p>Introduction to home management</p> <p>Consumer studies (2.2)</p> <p>Consumer choices (2.2.1)</p> <ul style="list-style-type: none"> Factors that affect consumer decision-making, with specific reference to varying household income percentage of family income spent on food 	<p>Discussion:</p> <ul style="list-style-type: none"> Influence of income levels on food choices <p>Group work:</p> <ul style="list-style-type: none"> Draw up a weekly shopping list for an elderly person on a pension 	<ul style="list-style-type: none"> Calculate the percentage of weekly income spent on food by an elderly person living independently but on a pension List social, economic and practical factors influencing the diet of the elderly 	<ul style="list-style-type: none"> Food, diet, and health Social issues Resource management 	<ul style="list-style-type: none"> Household budget survey, 1994 Textbooks: Social section
<p>Introduction to food hygiene and food spoilage (1.3.8)</p> <ul style="list-style-type: none"> Role of micro-organisms and enzymes in food spoilage Principles underlying the control of microbial and enzymatic spoilage Safe food preparation Consequences of unsafe practices 		<p>Discussion:</p> <ul style="list-style-type: none"> Draw up hygiene and safety rules for food studies practical coursework <p>Activity:</p> <ul style="list-style-type: none"> Students will read a newspaper article on a food poisoning outbreak and discuss prevention 	<ul style="list-style-type: none"> Learn safety and hygiene rules to be applied during food studies practical coursework classes 	<ul style="list-style-type: none"> Food, diet, and health Consumer competence Family social issues Resource management 	<ul style="list-style-type: none"> Newspaper article Summary sheet Kitchen rules
	<p>Consumer responsibility (2.2.2)</p> <ul style="list-style-type: none"> Informed decision-making 	<p>Discussion:</p> <ul style="list-style-type: none"> Responsibility of the consumer in informed decision-making Consumer responsibility and rights 	<ul style="list-style-type: none"> Written question on case study: purchase of a food item that is past its sell-by date Rights Responsibilities Correct course of action 	<ul style="list-style-type: none"> Food, diet, and health Consumer competence Resource management 	
<p>Introduction to HACCP (1.3.10)</p>		<p>Discussion:</p> <ul style="list-style-type: none"> To emphasise the potential hazards during practical coursework To create a simple HACCP system that will be applied during practical coursework 	<ul style="list-style-type: none"> Written question on the application of HACCP during practical coursework (food, personal and environmental hygiene) 	<ul style="list-style-type: none"> Food, diet, and health Consumer competence Resource management 	<ul style="list-style-type: none"> Handout on HACCP Application of HACCP in schools (guidelines)

Content		Class activity	Homework	Key themes	Resources*
Food	Resource management and social studies				
	<p>Consumer protection (2.2.3)</p> <p>Social studies (3.1.6)</p> <ul style="list-style-type: none"> Roles and responsibilities 	<p>Group work:</p> <ul style="list-style-type: none"> Students gather information on national agencies involved in food safety and build up a file 	<ul style="list-style-type: none"> Students should learn the relevant acts related to food safety 	<ul style="list-style-type: none"> Food, diet, and health Consumer competence 	<ul style="list-style-type: none"> FSAI leaflets
<p>Introduction to food studies assignment and records of practical coursework</p> <ul style="list-style-type: none"> Introduction to the concept of a food studies assignment Classroom management for practical work procedures 		<ul style="list-style-type: none"> Students will familiarise themselves with the layout of records of practical coursework Students will understand the concept of a food studies assignment 	<ul style="list-style-type: none"> Collect homework question 	<ul style="list-style-type: none"> Food, diet, and health Resource management 	<ul style="list-style-type: none"> Handout and overheads Filling out record of practical coursework
	<p>Introduction to the main concepts of resource management</p> <p>Components of management (2.1.1)</p> <ul style="list-style-type: none"> Inputs Throughputs Outputs Decision making 	<p>Individual Work:</p> <ul style="list-style-type: none"> Students will approach the planning of Food studies assignment 1 with regard to <p>Inputs:</p> <ul style="list-style-type: none"> Investigate resources, human and material Needs, wants, and goals <p>Throughputs:</p> <ul style="list-style-type: none"> Planning, organising, implementation <p>Outputs:</p> <ul style="list-style-type: none"> Evaluate according to goals achieved Changes in values, feedback to inputs 	<ul style="list-style-type: none"> Written question on the main concepts of resource management 	<ul style="list-style-type: none"> Food, diet, and health Consumer competence Resource management 	<ul style="list-style-type: none"> Textbook

Content		Class activity	Homework	Key themes	Resources
Food	Resource management and social studies				
<p>Preparation of a food studies assignment: Area of practice A: Application of nutritional principles</p> <ul style="list-style-type: none"> • Assignment 1 <p>See p. 34 for Food assignment 1</p>		<p>Group work :</p> <ul style="list-style-type: none"> • Preparation of Food studies assignment 1 • Students will investigate the special requirements of the elderly: dietary, economic and practical 	<ul style="list-style-type: none"> • Prepare for practical coursework. • Write up investigation, analysis and planning sections of the records of practical coursework 	<ul style="list-style-type: none"> • Food, diet, and health • Consumer competence • Resource management • Social issues 	<ul style="list-style-type: none"> • Library • Cookery books • Food tables
	<p>Management of household financial resources (2.1.3)</p> <ul style="list-style-type: none"> • Household income with regard to social factors—age • Essential and discretionary expenditure • Pensions and social welfare allowances; relate to elderly 	<p>Group work:</p> <ul style="list-style-type: none"> • Investigate pensions and social welfare payments for elderly • Draw up a weekly menu for an elderly person 	<ul style="list-style-type: none"> • Using the menus planned in class, draw up a weekly shopping list and calculate percentage of income spent on food by an elderly person on non-contributory old age pension 	<ul style="list-style-type: none"> • Food, diet, and health • Consumer competence • Resource management • Social issues 	<ul style="list-style-type: none"> • Social welfare leaflets • Weekly shopping bills
<p>Food studies assignment 1 application 1</p> <ul style="list-style-type: none"> • Students will make and evaluate main course dishes suitable for an elderly person, using the information from their investigation 		<p>Practical work:</p> <ul style="list-style-type: none"> • Prepare, cook, serve and evaluate the main courses • Suitability of dishes for elderly—dietary—economically—practically 	<ul style="list-style-type: none"> • Write up the relevant sections of the records of practical coursework • Implementation • Evaluation 	<ul style="list-style-type: none"> • Food, diet, and health • Consumer competence • Resource management • Social issues 	<ul style="list-style-type: none"> • Food tables • Social welfare leaflets • Weekly shopping bills
	<p>Resource Management (2.1.3)</p> <ul style="list-style-type: none"> • Decision-making • Evaluation of application of the management framework in carrying out the food studies assignment 	<p>Discussion:</p> <ul style="list-style-type: none"> • Feedback to original inputs—goals set—use of resources—needs met 	<ul style="list-style-type: none"> • Write an evaluation of the resource management aspect of the assignment 	<ul style="list-style-type: none"> • Consumer competence • Resource management • Social issues 	<ul style="list-style-type: none"> • Evaluation sheets
<p>Food studies assignment 1 application 2</p> <ul style="list-style-type: none"> • Students will make and evaluate main course dishes suitable for an elderly person, using the information from their investigation 		<p>Practical work:</p> <ul style="list-style-type: none"> • Prepare, cook, serve and evaluate the main courses • Suitability of dishes for elderly—dietary—economically—practically 	<ul style="list-style-type: none"> • Write up the relevant sections of the records of practical coursework • Implementation • Evaluation 	<ul style="list-style-type: none"> • Food, diet, and health • Consumer competence • Resource management • Social issues 	<ul style="list-style-type: none"> • Food tables • Social welfare leaflets • Weekly shopping bills

Content		Class activity	Homework	Key themes	Resources
Food	Resource management and social studies				
Energy and food (1.2.1) <ul style="list-style-type: none"> • Definition of energy • Factors affecting energy requirements • Calculation of energy • Energy balance, empty kcals. • BMR 		<ul style="list-style-type: none"> • Learn the essential concepts and terminology of the topic <p><i>Group work:</i></p> <ul style="list-style-type: none"> • Students will work on case studies on varying energy requirements • Evaluate food labels to understand the term 'empty kcals' 	<ul style="list-style-type: none"> • Write a report on the findings of a case study • Report on the food labels • Calculate the energy value of one of the cooked dishes from assignment 1 	<ul style="list-style-type: none"> • Food, diet, and health • Consumer competence • Family social issues 	<ul style="list-style-type: none"> • Guidelines • Food labels • Overheads
Protein as a nutrient (1.1.2) <ul style="list-style-type: none"> • Chemical composition • Structure and sources of protein 		<ul style="list-style-type: none"> • Students will analyse and understand the basic facts, terminology and concepts of the topic • Interpret diagrams relating to the chemical structure of protein 	<ul style="list-style-type: none"> • Learn class work 	<ul style="list-style-type: none"> • Food, diet, and health 	<ul style="list-style-type: none"> • Overheads • Poster on classification • Textbook
	Financial resources: The food budget (2.1.3) <ul style="list-style-type: none"> • Impact of income and family size on protein content and quality in the diet 	<p>Discussion:</p> <ul style="list-style-type: none"> • Percentage of income spent on food as a percentage of family income and the effects of this on quality of diet 	<ul style="list-style-type: none"> • Using food tables, estimate <ul style="list-style-type: none"> (i) the amount of protein required daily (ii) the cost of the protein segment of the weekly shopping bill for a family of two adults and two young children 	<ul style="list-style-type: none"> • Food, diet, and health • Consumer competence • Social issues 	<ul style="list-style-type: none"> • Household budget survey • Percentage spent on food <ul style="list-style-type: none"> Social group 1: 17.8% Social group 6A/6B 27.6% Ref.: HBS • Food tables

Content		Class activity	Homework	Key themes	Resources
Food	Resource management and social studies				
Protein/continued <ul style="list-style-type: none"> Biological value and energy value Complementary or supplementary value Deamination Properties 		<i>Group work</i> <ul style="list-style-type: none"> Examine the contribution that protein makes to the energy value of a dish 	<ul style="list-style-type: none"> Study for test on protein 	<ul style="list-style-type: none"> Food, diet, and health Consumer competence Social issues 	<ul style="list-style-type: none"> Cookery books
	Social studies/continued (3.1.1) <ul style="list-style-type: none"> Society, roles, culture, norms, values 	<ul style="list-style-type: none"> Examine the national differences: <ul style="list-style-type: none"> —lifestyle —food —values 	<ul style="list-style-type: none"> Written question on roles, culture, norms, and values 	<ul style="list-style-type: none"> Food, diet, and health Consumer competence Social issues 	<ul style="list-style-type: none"> Textbook Cookery books from various cultures Menus from local food shops
	Household technology (2.1.5) <ul style="list-style-type: none"> Underlying principles and guidelines for appliance with a motor 	<ul style="list-style-type: none"> Students will research the use etc. of one food preparation appliance suited to Food assignment 2 	<ul style="list-style-type: none"> Write up a profile of a food preparation appliance 	<ul style="list-style-type: none"> Food, diet, and health Consumer competence Resource management Family social issues 	<ul style="list-style-type: none"> Literature on appliances from electrical outlets <i>Consumer Choice</i> Textbook
Eggs (1.3.2) <ul style="list-style-type: none"> Nutritional and dietetic value Cooking Storing Salmonella-vulnerable groups 		<ul style="list-style-type: none"> Students will learn the basic facts, terminology and concepts of the topic Students will study coagulation as a property of eggs 	<ul style="list-style-type: none"> Written question on eggs 	<ul style="list-style-type: none"> Food, diet, and health Consumer competence Resource management Family social issues 	<ul style="list-style-type: none"> Textbook
	Consumer choices <ul style="list-style-type: none"> selection, EU labelling free range v. battery, ‘super’ eggs 	<ul style="list-style-type: none"> Students will learn the basic facts regarding the consumer issues and protection, terminology and concepts of the topic 	<ul style="list-style-type: none"> Written question on the consumer aspect of eggs 	<ul style="list-style-type: none"> Food, diet, and health Consumer competence Resource management Family social issues 	<ul style="list-style-type: none"> Textbook

Content		Class activity	Homework	Key themes	Resources*
Food	Resource management and social studies				
<p>Preparation for Food assignment 2</p> <p>Area of practice D: Properties of food Assignment 2</p> <p>See p. 34 for Food assignment 2</p>		<p><i>Group work:</i></p> <ul style="list-style-type: none"> Investigate a range of both sweet and savoury dishes where the coagulation property is essential to the dish Decide which dishes to cook 	<ul style="list-style-type: none"> Prepare for practical work Write up the relevant sections in the records of practical coursework Analysis and investigation Preparation and planning 	<ul style="list-style-type: none"> Food, diet, and health Consumer competence Resource management Family social issues 	<ul style="list-style-type: none"> Cookery books Teachers guidelines
<ul style="list-style-type: none"> Protein and energy 	<ul style="list-style-type: none"> Resource management including components of management and decision making Social studies: role and gender issues, culture, norms and values Consumer issues 	<p><i>Class written assessment:</i></p> <ul style="list-style-type: none"> Test knowledge and understanding of the facts principles and terminology of protein and energy Test knowledge and understanding of social studies Social studies: roles and gender issues 		<ul style="list-style-type: none"> Food, diet, and health Consumer competence Resource management Family social issues 	
<p>Food Studies assignment 2 application 1</p> <p>Area of practice D: Properties of food</p> <ul style="list-style-type: none"> The coagulation factor of eggs Define the property of coagulation Cooking methods and scientific principles Essential points in making the dish Possible problems Safety and hygiene (refer to HACCP) Protein in eggs 		<p><i>Practical work:</i></p> <ul style="list-style-type: none"> Students will make the chosen dishes Understand and apply the principles of coagulation Apply the safety and hygiene rules and simple HACCP system 	<ul style="list-style-type: none"> Write up the relevant sections in the records of practical coursework Implementation Evaluation 	<ul style="list-style-type: none"> Food, diet, and health Consumer competence Resource management 	<ul style="list-style-type: none"> Teachers guidelines

Content		Class activity	Homework	Key themes	Resources•
Food	Resource management and social studies				
<p>Food Studies assignment 2 application 2</p> <p>Area of practice D – Properties of food</p> <ul style="list-style-type: none"> • The coagulation factor of eggs • Define the property of coagulation • Cooking methods and scientific principles • Essential points in making the dish • Possible problems • Safety and hygiene (refer to HACCP) • Protein in eggs 		<p><i>Practical work:</i></p> <ul style="list-style-type: none"> • Students will make the chosen dishes • Understand and apply the principles of coagulation • Apply the safety and hygiene rules and simple HACCP system 	<ul style="list-style-type: none"> • Write up the relevant sections in the records of practical coursework • Implementation • Evaluation 	<ul style="list-style-type: none"> • Food, diet, and health • Consumer competence • Resource management 	<ul style="list-style-type: none"> • Teachers guidelines

FOOD ASSIGNMENTS FOR EXEMPLAR WORK PLAN

Food assignment 1	Food assignment 2
<p>Area of Practice A:</p> <p>Application of Nutritional Principles</p> <p>Special requirements (dietary, economical and practical) should be considered when planning meals for the elderly.</p> <p>Identify and elaborate on some of these considerations under the above three headings. Bearing in mind these requirements, investigate a range of main courses suitable for lunch for two elderly people.</p> <p>Prepare cook and serve two of the main courses you have identified.</p> <p>Evaluate the assignment in terms of</p> <p>(a) planning</p> <p>(b) implementation and</p> <p>(c) the specific requirements of the assignment.</p>	<p>Area of Practice D:</p> <p>Dishes Illustrating the Properties of a Food</p> <p>The coagulation of eggs has a wide variety of culinary uses.</p> <p>Define the property coagulation.</p> <p>Investigate its application in the making of sweet and savoury dishes.</p> <p>Select two dishes and explain how the principle of coagulation is used when preparing and cooking each dish.</p> <p>Prepare, cook, and serve the selected dishes.</p> <p>Evaluate the assignment in terms of</p> <p>(a) implementation and</p> <p>(b) success in applying the cooking principles.</p>
Suggested dishes	Suggested dishes
<p>List of suggested dishes given under Area of Practice A</p>	<p>Bread and Butter Pudding</p> <p>Custard Trifle</p> <p>Pear and Almond Tart /Apricot Tart</p> <p>Lemon Tart</p> <p>Floating Islands (Meringue/ Custard)</p> <p>Quiche</p> <p>Savoury Sandwich Pudding</p> <p>Spanish Omelette</p>

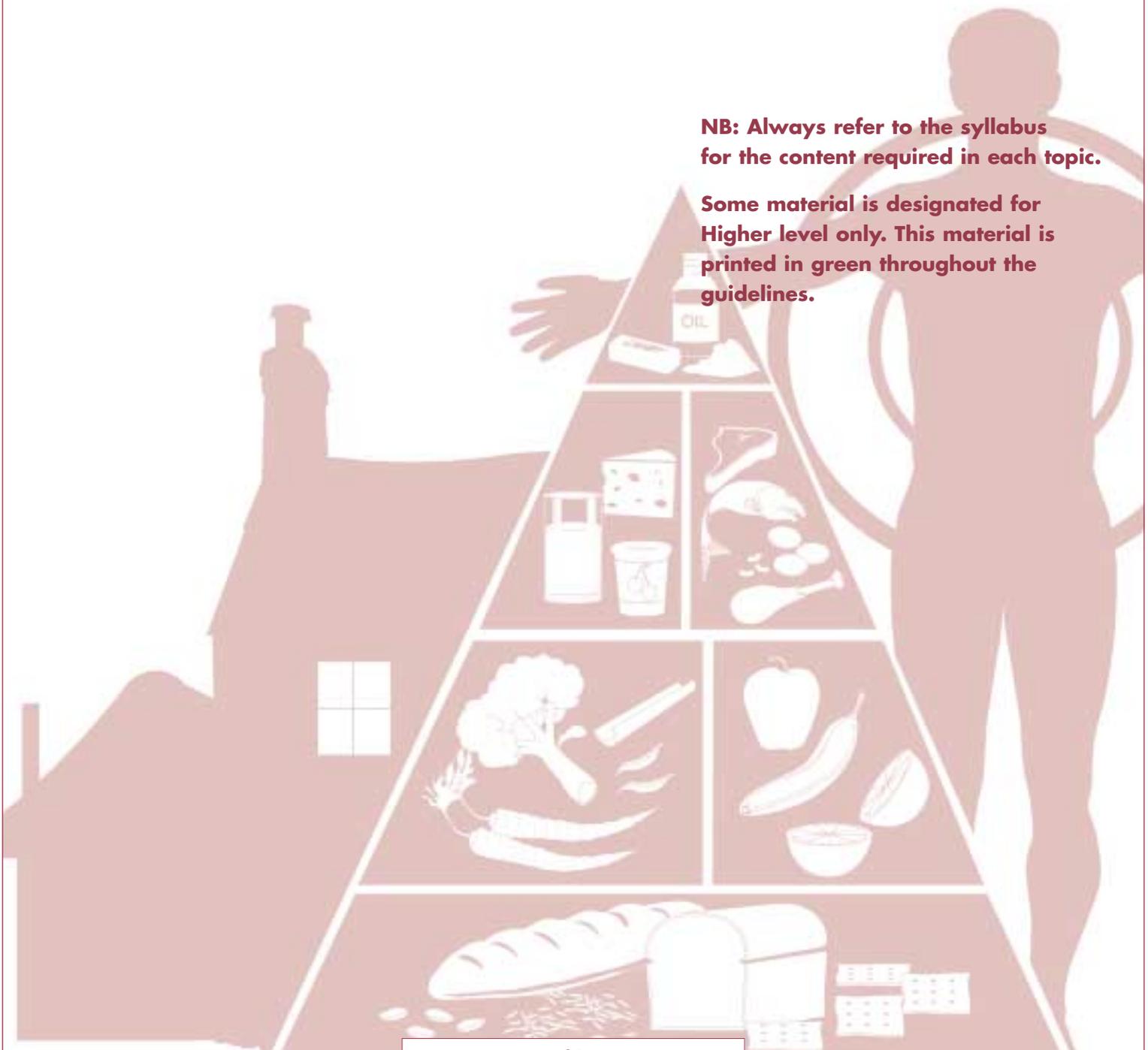
Check-lists

CLASS GROUP _____

YEAR: 20____

NB: Always refer to the syllabus for the content required in each topic.

Some material is designated for Higher level only. This material is printed in green throughout the guidelines.



1. FOOD STUDIES

1.1 FOOD SCIENCE AND NUTRITION

	Year 1	Year 2
Food choices		
• Factors affecting food choice	_____	_____
Macronutrients		
• protein	_____	_____
• carbohydrates	_____	_____
• lipids	_____	_____
<i>Refer to the syllabus for detail required on each nutrient</i>		
Micronutrients		
Vitamins		
• A	_____	_____
• D	_____	_____
• E	_____	_____
• K	_____	_____
• C	_____	_____
• B ₁₂	_____	_____
• Folate	_____	_____
<i>Sources, functions and effects of deficiency, recommended dietary allowances, properties</i>		
Vitamins		
• thiamine	_____	_____
• riboflavin	_____	_____
• pyridoxine	_____	_____
• niacin	_____	_____
<i>Sources, functions, effects of deficiency, properties</i>		
Minerals		
• List of the principal mineral elements and trace mineral elements needed in the diet	_____	_____
• calcium	_____	_____
• iron	_____	_____
• zinc	_____	_____
• iodine	_____	_____
• potassium	_____	_____
• sodium	_____	_____
<i>Sources, functions, effects of deficiency, recommended dietary allowances</i>		
• Factors affecting absorption of mineral elements in the body, to include: role of minerals in assisting the absorption of calcium and iron sources of haem iron and non-haem iron the effects of phytates and oxalates on the absorption of calcium	_____	_____
	_____	_____
	_____	_____
Water		
• general properties	_____	_____
• biological importance	_____	_____

1.2 DIET AND HEALTH

	Year 1	Year 2
Energy		
• Factors that determine energy requirements	_____	_____
• Role of energy in the body		
basal metabolic rate	_____	_____
growth	_____	_____
physical activity	_____	_____
• Energy balance	_____	_____
Dietary guidelines		
• Nutritional guidelines, to include:		
formulation of guidelines	_____	_____
use of recommended dietary allowances	_____	_____
use of food composition tables	_____	_____
Dietary and food requirements		
• Factors affecting food requirements	_____	_____
• Diet-related problems, to include:		
bowel disease	_____	_____
osteoporosis	_____	_____
obesity	_____	_____
coronary heart disease	_____	_____
diabetes	_____	_____
dental caries	_____	_____
• Specific dietary requirements for:		
coronary heart disease	_____	_____
lacto-vegetarian	_____	_____
vegan	_____	_____
coeliac	_____	_____
diabetic	_____	_____
The Irish diet		
• Changes in the twentieth century	_____	_____
• Comparison with dietary guidelines	_____	_____
• Aspects of malnutrition now identified to include:		
low fibre content	_____	_____
high saturated fat	_____	_____
low iron	_____	_____
low calcium	_____	_____
<i>Refer to causes, effects, and corrective measures</i>		

1.3 PREPARATION AND PROCESSING OF FOOD

	Year 1	Year 2
The Irish food industry		
• Brief outline of structure	_____	_____
• Role of small business and home enterprise in the food industry	_____	_____
• Career opportunities in related food industries	_____	_____
Food commodities		
• Meat <input type="checkbox"/> Fish <input type="checkbox"/> Eggs <input type="checkbox"/> Meat alternatives <input type="checkbox"/>	_____	_____
• Milk <input type="checkbox"/> Cheese <input type="checkbox"/> Yoghurt <input type="checkbox"/> Dairy products <input type="checkbox"/>	_____	_____
• Fruit <input type="checkbox"/> Vegetables <input type="checkbox"/>	_____	_____
• Cereals	_____	_____
• Fats and oils	_____	_____
<i>Refer to the syllabus for detail required on each food</i>		
Meal management and planning		
<i>Refer to:</i>		
• Dietary guidelines	_____	_____
• Dietary requirements through the life cycle	_____	_____
• Specific dietary requirements (as listed in the syllabus)	_____	_____
• Resources available	_____	_____
Food preparation and cooking processes		
• Physical and chemical changes that occur in cooking	_____	_____
• Cooking principles	_____	_____
• Soups and sauces (classification, preparation, cooking, presentation)	_____	_____
• Two types of pastry (classification, preparation, cooking, presentation)	_____	_____
• Cooking methods (choice and application)	_____	_____
• Food preparation and cooking equipment (selection, use, care)	_____	_____
• Recipe balance and adaptation	_____	_____
• Aesthetic awareness in food choice, preparation, and presentation	_____	_____
• Preparation of a selection of dishes to suit syllabus requirements	_____	_____
• Critical evaluation and comparative assessments of dishes or meals	_____	_____
• Sensory analysis of chosen dishes or products	_____	_____
<i>Refer to the syllabus for detail required</i>		
Food processing and packaging		
• Identification of the range of processed foods available	_____	_____
• Profiles of three types of processed food available:		
1. Food that undergoes extensive processing	_____	_____
2. Food processed to extend shelf life	_____	_____
3. Added-value food	_____	_____
• Evaluation of packaging and materials used (suitability and purpose)	_____	_____
• Evaluation of food labelling as a source of consumer information	_____	_____
• Contamination of the food chain	_____	_____

1.3 PREPARATION AND PROCESSING OF FOOD/CONTINUED

Year 1

Year 2

Food additives

- Colourings
- Flavourings
- Sweeteners
- Preservatives
- Nutritional supplements
- Physical conditioning agents

Classification, examples, origin, functions.

- Legal control of the use of preservatives, colourings, emulsifiers, anti-oxidants

Food legislation

- Outline of present national and European food legislation, to include:

Food Hygiene Regulations, (1950–1989)

 Labelling Regulations (1982 and 1991)

 Sale of Food and Drugs Acts (1875, 1879, 1899, 1936)

 Health (Official Control of Foodstuffs) Regulations (1991)

Food spoilage

- Micro-organisms that cause food spoilage and foodborne diseases, to include:

 moulds

 yeasts

three common strains of food poisoning bacteria

 1 _____

 2 _____

 3 _____

Habitat, sources, growth, high-risk foods, and incubation period.

- Toxic and infectious food poisoning
- Role of micro-organisms in food spoilage
- Principles underlying the control of microbial spoilage
- Uses of micro-organisms in food production
- Role of enzymes in food spoilage
- Principles underlying the control of enzymatic spoilage of food

Preservation

- Principles and methods of:

 freezing

 heat processing

 dehydration

 chemical preservation

 fermentation

 irradiation

- Comparative evaluation of foods that have been preserved by different methods

- Practical application of *two* methods of preservation

 1 _____

 2 _____

1.3 PREPARATION AND PROCESSING OF FOOD/CONTINUED

	Year 1	Year 2
Food safety and hygiene		
• Safe food preparation, to include:		
food storage	_____	_____
re-heating procedures	_____	_____
personal hygiene	_____	_____
kitchen hygiene	_____	_____
HACCP	_____	_____
ISO9000	_____	_____
• Role of national agencies in food safety, to include:		
Department of Agriculture and Food	_____	_____
Department of Health and Children	_____	_____
Public Analyst Laboratories	_____	_____
Regional Health Boards	_____	_____
Food Safety Authority	_____	_____
• Director of Consumer Affairs (Food Safety Legislation)	_____	_____

2. RESOURCE MANAGEMENT AND CONSUMER STUDIES

2.1 FAMILY RESOURCE MANAGEMENT

	Year 1	Year 2
Family resource management		
• Purpose of resource management	_____	_____
• Management systems	_____	_____
• The family as a managerial unit	_____	_____
Components of management		
• Inputs: resources, needs, wants, goals	_____	_____
• Throughputs: planning, organising, and implementing	_____	_____
• Outputs: goals achieved, changes in values, goals, standards, satisfaction, evaluation, feedback	_____	_____
• Decision-making and communication	_____	_____
Attributes affecting management		
Factors that affect management, to include:	_____	_____
• stages in life cycle	_____	_____
• employment pattern	_____	_____
• culture	_____	_____
• values	_____	_____
• standards	_____	_____
• gender issues	_____	_____
• management of dual roles	_____	_____
• life-styles as determined by socio-economic status	_____	_____
• status and composition of family	_____	_____
Management of household financial resources		
• The household as a financial unit	_____	_____
• Social factors affecting household income	_____	_____
• Sources of household income	_____	_____
• Patterns of household expenditure	_____	_____
• Personal budgets	_____	_____
• Family budgets	_____	_____
• Housing finance: factors determining requirements, sources, conditions, mortgage protection	_____	_____
• Methods of payment for household goods: criteria for selection, availability	_____	_____
• Consumer credit protection: Hire Purchase Acts (1946, 1960) Consumer Credit Act (1995)	_____	_____
• Saving schemes	_____	_____
• Insurance: PRSI, health insurance, household insurance, life assurance	_____	_____
Housing		
Factors that determine type:	_____	_____
• socio-economic factors	_____	_____
• national housing policy	_____	_____
• trends in housing development	_____	_____
• availability	_____	_____

2.1 FAMILY RESOURCE MANAGEMENT/CONTINUED

	Year 1	Year 2
Household technology		
• Technological developments available to the household	_____	_____
• Factors to consider when selecting large and small appliances	_____	_____
• Underlying working principles and guidelines for use of:		
one appliance with a motor	_____	_____
one appliance with a heating element	_____	_____
one refrigeration appliance	_____	_____
a microwave oven	_____	_____
Textiles		
• Use of textiles for household and clothing purposes	_____	_____
• Points to consider when selecting textiles	_____	_____
• Textile care	_____	_____
• Safety considerations in the selection of household fabrics	_____	_____
• Identification and the effects of one fire-retardant finish	_____	_____
• Fire Safety (Domestic Furniture) Order (1988)	_____	_____

2.2 CONSUMER STUDIES

	Year 1	Year 2
Consumer choices		
• Factors that affect consumers' decision-making. Refer to:		
levels of income	_____	_____
merchandising	_____	_____
advertising	_____	_____
packaging	_____	_____
labelling	_____	_____
• The purchasing process, to include:		
classification of retail outlets	_____	_____
retail psychology	_____	_____
shopping patterns	_____	_____
consumer research	_____	_____
Consumer responsibility		
• Responsibility of the consumer in informed decision-making, with regard to:		
consumer information and rights	_____	_____
management of the environment, to include:		
renewable and non-renewable resources, recycling, pollution	_____	_____
Consumer protection		
• Rights of the consumer as defined by legislation, to include:		
Sale of Goods and Supply of Services Act (1980)	_____	_____
Consumer Information Act (1978)	_____	_____
• Voluntary bodies concerned with consumer protection	_____	_____
• Statutory bodies concerned with consumer protection	_____	_____
• Procedures to be followed when making a complaint	_____	_____
• Small claims procedure	_____	_____

3. SOCIAL STUDIES

3.1 THE FAMILY IN SOCIETY

	Year 1	Year 2
Introducing sociological concepts		
• Definition of main sociological concepts, (<i>see the syllabus for details required</i>)	_____	_____
Defining the family		
• The universality of the concept of family	_____	_____
• Definitions of the family	_____	_____
Family structures		
• Historical development of the family in Ireland from the beginning of the twentieth century to the present day	_____	_____
• Characteristics of modern family structures, to include:	_____	_____
lone parent family	_____	_____
nuclear family	_____	_____
extended and blended families	_____	_____
• Social, economic and technological changes affecting modern family structures	_____	_____
Family functions		
• Physical, economic, emotional, educational and social functions	_____	_____
• Role of social institutions in family functions	_____	_____
Marriage		
• Definition of marriage	_____	_____
• Cultural variations in marital arrangements, commitment, customs, legal obligations, rights and responsibilities	_____	_____
• Facilities and services available to those preparing for marriage	_____	_____
• Choices available when a marriage breaks down, to include:		
marriage counselling	_____	_____
family mediation	_____	_____
legal separation	_____	_____
legal nullity	_____	_____
divorce	_____	_____
Family as a caring unit		
• Roles and responsibilities of family members throughout the life cycle of the family	_____	_____
• Gender issues in relation to family roles	_____	_____
• Social and economic factors that have affected the changing roles of family members	_____	_____
• Role conflict	_____	_____
• Child-parent relationships, to include:		
physical and psychological needs of young children and adolescents	_____	_____
how the family can meet these needs	_____	_____
rights of children within the family	_____	_____
conflict resolution	_____	_____
communication	_____	_____

3.1 THE FAMILY IN SOCIETY/CONTINUED

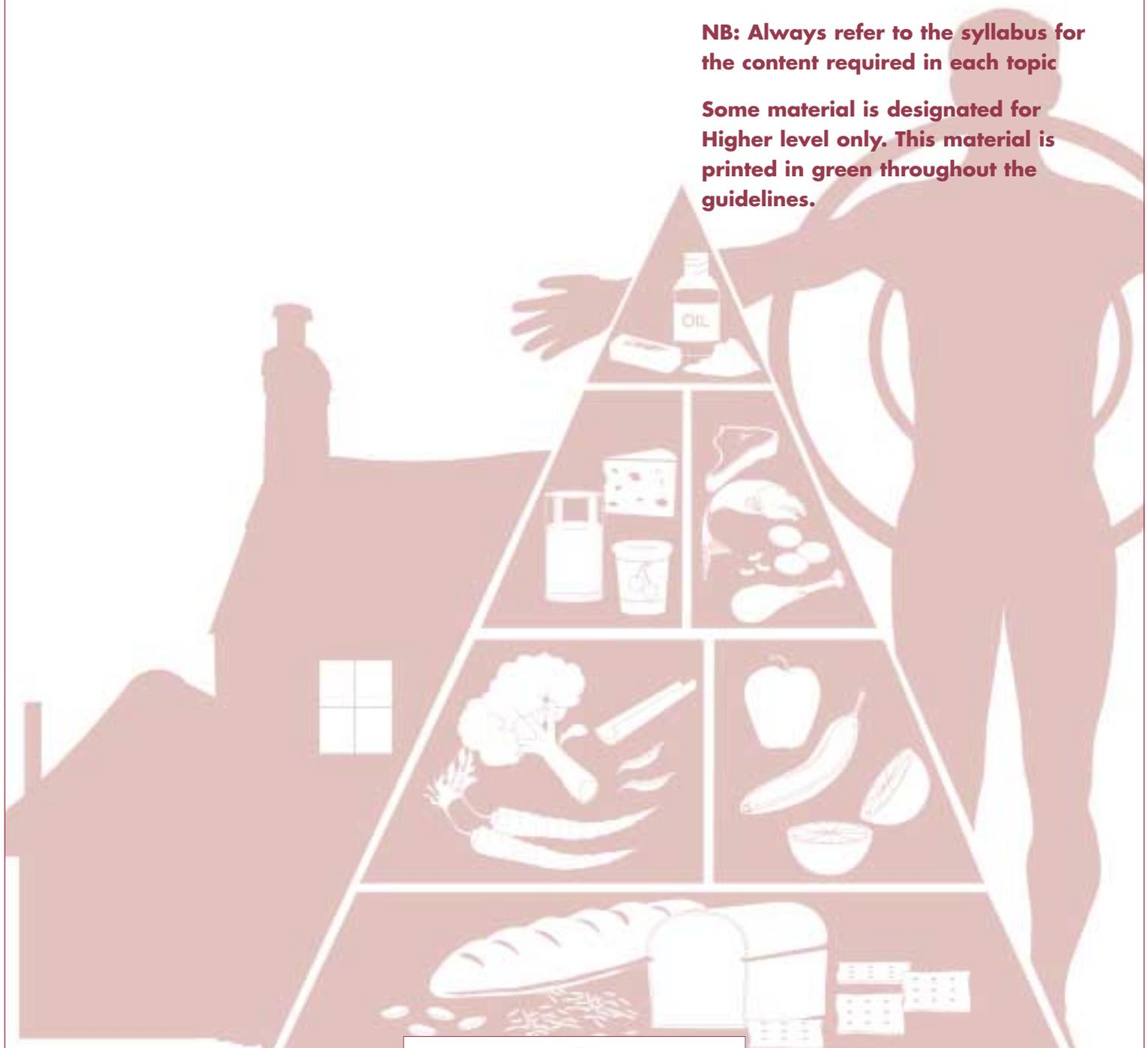
	Year 1	Year 2
• The role of older people within the family, to include:		
importance of independence for the older person	_____	_____
dealing with generation conflict	_____	_____
• Response of the family to those with special needs	_____	_____
• Role of statutory and voluntary agencies in helping the family with this role	_____	_____
Family law		
• Protection available for families under family law, to include:		
The Family Law (Maintenance of Spouses and Children) Act (1976)	_____	_____
The Family Home Protection (1976)	_____	_____
The Family Law Act, (1976), section 22: barring orders	_____	_____
The Judicial Separation Act (1989)	_____	_____
The Child Care Act (1991)	_____	_____
• Making a will	_____	_____

*E*lective check-lists

Choose *One* Elective Only

NB: Always refer to the syllabus for the content required in each topic

Some material is designated for Higher level only. This material is printed in green throughout the guidelines.



4. ELECTIVE 1: HOME DESIGN AND MANAGEMENT

4.1 HOUSING

Year 2

Housing styles

- Outline of the historical development of housing styles in Ireland from the nineteenth century
- Identification of current popular housing styles in Ireland
- Factors that influence the choice of housing styles

Housing provision

- Variations in housing requirements, to include the specific physical requirements of:
 - families
 - single people
 - the elderly
 - people with disabilities
 - the homeless
- An evaluation of housing provision in Ireland, to include:
 - distribution of housing—rented or owner-occupied, private or social housing, urban or rural distribution
 - quality of accommodation
 - comparative costs of buying and renting
 - adequacy of housing provision to meet the variations in housing requirements
 - social housing provision local authority provision, voluntary and co-operative housing
 - provision of local amenities and services for housing developments

4.2 HOUSE BUILDING AND DESIGN

Year 2

- Factors that influence the choice of location and house style
- Planning procedures and requirements
- Professional services available to assist in the design and building of a house, to include:
 - architects
 - engineers
 - surveyors
 - solicitors
 - builders
 - books of house plans
- Factors that influence the design of a house, to include:
 - aesthetic and environmental factors
 - family requirements
 - energy-efficiency
 - ergonomics, costs
 - technological developments
- Regulation of house building standards, to include:
 - national house building guarantee scheme
 - provision of certificates and guarantees
 - provision of grant

4. ELECTIVE 1: HOME DESIGN AND MANAGEMENT

4.5 SYSTEMS AND SERVICES TO THE HOME

Year 2

Electricity

- Household electricity supply
- Structure of the ring circuit
- Voltage, wattage, amperage, kilowatt-hour
- Tariffs and costings
- Electrical safety
- Fuses, circuit-breakers, earth wire

Water

- Cold water supply
- Storage of cold water in the home

Heating

- Levels and control of thermal comfort
- Thermostats — underlying principle and uses
- Heating options available for the home
- Factors to consider when choosing a heating system
- One system of domestic central heating — underlying scientific principles and their application

Insulation

- Underlying principles and methods

Ventilation

- Underlying principles of ventilation
- Application of the principles of ventilation
- Natural methods of ventilation
- Artificial methods of ventilation

Lighting

- Properties of light
- Application of the properties of light
- Principles for planning a lighting system
- Outline of contemporary lighting developments
- Energy-efficient lighting — underlying principles and uses

5. ELECTIVE 2: TEXTILES, FASHION, AND DESIGN

5.1 CONTEMPORARY CLOTHING AND FASHION

Year 2

- Social, economic and industrial influences on the design and construction of clothing
- Critical evaluation of current fashion trends (*refer to the syllabus for the detail required*)
- Factors that influence clothing requirements (*refer to the syllabus for the detail required*)
- Elements and principles of design

5.2 TEXTILE SCIENCE

Year 2

- Natural fibres
- Regenerated fibres
- Synthetic fibres

Classification, sources, uses

- Three fabric profiles:
 one fabric manufactured from natural fibres
 one fabric manufactured from manufactured fibres
 one fabric manufactured from a blend

CONTENT OF EACH PROFILE

fibre production, properties, identification of fibre (using burning test and microscopic evaluation), yarn production, yarn or filament modification, two or three fabric construction techniques, two or three finishes, two methods of colour application, two methods of design application, two fabric performance tests

5.3 DESIGN EVALUATION AND GARMENT CONSTRUCTION

Year 2

- Application of the elements and principles of design to garment construction and evaluation
- Evaluation of the design of garments or outfits (*refer to the syllabus for the detail required*)
- Construction of a garment to meet task requirements
- Selection and modification of a commercial pattern to meet specific needs

5.4 THE CLOTHING AND TEXTILE INDUSTRIES

Year 2

- Overview of the structure of the clothing and textile industry in Ireland
- Role of small business and cottage industries in the clothing and textiles sector
- Career opportunities

6. ELECTIVE 3: SOCIAL STUDIES

6.1 SOCIAL CHANGE AND THE FAMILY

Year 2

- The impact of social change on family life
- The impact of economic change on family life

Refer to the syllabus for the detail required

6.2 EDUCATION

Year 2

- The purpose of education
 - As a method of socialisation
 - In the physical, emotional, moral and intellectual development of the individual
 - As a preparation for work
- Factors that influence educational achievement
- The provision of education in Ireland:
 - Pre-school
 - Primary
 - Second level
 - Third level
 - Adult and second-chance education
 - Special needs education
- Equality of opportunity in education
Refer to the syllabus for the detail required
- Contemporary initiatives in improving the accessibility of education

6.3 WORK

Year 2

Concepts of work

- Defining work
 - Paid employment
 - Unpaid work in the home and home-related activities
 - Voluntary work
- Attitudes to work and work attainment
- Changes in patterns of work and work availability
Refer to the syllabus for the detail required
- The role of unpaid and voluntary work in the community
- The benefits of unpaid and voluntary work gained by the volunteer and the community
- Brief outline of the Protection of Young Persons (Employment) Act (1996)

Reconciling employment with family responsibilities

- Changing patterns in gender issues within the family
- The impact of dual-earner families on family life
- Family requirements for child care facilities
- Options available to meet child care requirements
- Evaluation of two types of child care options

6.4 LEISURE**Year 2**

- Definition of leisure
- Function and value of leisure in today's society
- Influences on leisure patterns
- The role of individual and family leisure activities in physical, social and emotional development
- Evaluation of the leisure facilities available in the community, to include a comparison of cost and value of **two** facilities in the area

6.5 UNEMPLOYMENT**Year 2**

- Definition of unemployment
- The extent of unemployment in Ireland today
- Causes of unemployment
Refer to the syllabus for the detail required
- Effect of unemployment on:
 - the individual
 - the family
 - society

6.6 POVERTY**Year 2****Concepts of poverty**

- Define poverty, include:
 - absolute poverty
 - relative poverty
 - the poverty line
- The extent and distribution of poverty in Ireland today
- Identification of groups at risk of poverty

Causes and effects of poverty

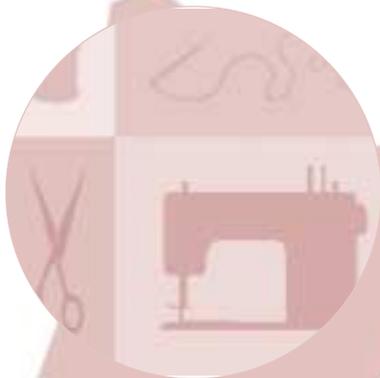
- Reasons why poverty continues to be a problem in western society, to include:
 - the cycle of poverty
 - the influence of social policy on poverty
 - the cycle of deprivation in families and geographical areas
 - the poverty trap

6.7 STATUTORY AND COMMUNITY RESPONSES TO CREATING EMPLOYMENT AND ELIMINATING POVERTY

Year 2

- Statutory responses, to include:
 - social welfare assistance and benefits _____
 - initiatives encouraging foreign investment _____
 - Schemes to reduce expenditure for low-income families _____
- Community responses, to include:
- the work of voluntary organisations _____
 - community-based educational the training and employment initiatives _____
 - emergence of co-operatives and cottage industries _____
 - the cycle of deprivation in families and geographical areas the poverty trap _____

Section five exemplar materials



5. EXEMPLAR MATERIALS

In this section a number of topics are presented to clarify the depth of treatment required and to give examples of teaching methodologies that might be used.

EXEMPLAR 1

1.1.5 VITAMINS

VITAMIN A (RETINOL)

INTRODUCTION

Vitamin A is available to the body in two forms: retinol or pure vitamin A, and carotene, which is a precursor of vitamin A, that is, it can be converted to vitamin A in the intestine. It is sometimes known as provitamin A. Retinol is found in animal foods. Carotene is present with chlorophyll in plant foods, which is converted to vitamin A in the body.

SOURCES

- halibut liver oil, cod liver oil, liver, butter, margarine (fortified with the vitamin), cheese, egg yolk, herrings, milk and cream in summer
- it can also be found in supplements.

FUNCTIONS

- Needed for the formation of bone and growth hormone
- By maintaining healthy membranes (cornea and bronchial tubes) it helps prevent invasion by disease-causing micro-organisms
- Promotes healthy skin
- Necessary for the eyes to manufacture rhodopsin in the retina, which improves ability to see in dim light.

WHO IS LIKELY TO BE DEFICIENT

People who limit their consumption of liver, dairy foods or vegetables that contain beta-carotene can develop a vitamin A deficiency. The earliest sign of deficiency is poor night vision.

SYMPTOMS OF DEFICIENCY

- Retarded growth; malformed bones
- Xerophthalmia—inflammation of the eye membrane, which may lead to blindness
- Dry skin (follicular keratosis)
- Night blindness
- Lowered resistance to infection.

RDA

Children (one to seven year olds):
300µg

Adults: 700µg

Pregnant and Nursing women: 950µg

PROPERTIES

- Yellow, fat-soluble alcohol
- Insoluble in water, but readily mixable with most organic solvents
- Can be destroyed by oxygen, as when exposed to air and light. *Processing and storage* (1.3.5) expose vitamin A in foods to the risks of considerable loss
- During food storage there are significant advantages in using *packaging* (1.3.5), which provides effective oxygen and light protection. The use of cans allows nitrogen purging of the headspace, thereby greatly enhancing the oxidative stability of the food and extending its shelf life
- Heat-stable, therefore little affected by cooking or heat preservation; but prolonged high temperatures destroy it
- Some loss when food is dried, as when raisins are dried in the sun.

Links to other parts of the syllabus are in italic type.

1.1.5 VITAMINS

CAROTENOIDS (BETA-CAROTENE)

INTRODUCTION

Carotenoids are found in the chloroplasts of green tissues in plants. They are pigments responsible for most of the yellow and orange colours of *fruit and vegetables (1.3.2)*. They are also present in green vegetables, but the colour is masked by chlorophyll. Normally associated with plants, carotenoids find their way into animal foods through the animal's diet and are responsible for the colour of egg yolk and the visible fat on meat. Carotenoids are divided into two groups: **carotenes**, which tend to give an orange colour, and **xanthophylls**, which are the dominant pigments in yellow tissue. Carotenes are precursors of vitamin A, being converted to vitamin A in the gut wall. The carotene family includes beta-carotene, alpha-carotene, lutein, and lycopene, however, unlike beta-carotene, most of these nutrients do not convert to significant amounts of vitamin A. Beta-carotene itself is about one-sixth as effective as an equal weight of retinol.

SOURCES OF BETA-CAROTENE

- kale, carrots, spinach, watercress, fresh and dried apricots, melons, peaches, prunes, tomatoes, cabbage, peas
- in green vegetables; the darker the green, the more carotene present
- used in colouring margarine
- it is also found in nutritional supplements.

FUNCTIONS

See retinol.

WHO IS LIKELY TO BE DEFICIENT?

People who limit their consumption of vegetables containing beta-carotene could be at higher risk of developing vitamin A deficiency. However, because beta-carotene is not an essential nutrient, deficiencies do not occur.

PROPERTIES

- Bright yellow or orange oil. The distinctive feature of carotenoids responsible for their special properties and functions is a series of conjugated double bonds. The intensity and hues of plant foods depend on which carotenoids are present and their concentrations
 - Almost insoluble in water. Liposoluble, dissolving in fat solvents, such as acetone and alcohol
 - Stability: Generally stable, but heating in the absence of air (as in canning) affects the chemical bonds in the molecule, causing loss of colour intensity; there is therefore a difference in colour between some canned and fresh fruit, such as pineapple. Oxidation can also result in the formation of compounds that give undesirable aromas to some food
- Blanching, freezing and heat treatment (1.3.9) have little effect on carotenoids. However, they are affected by dehydration*
- It is a powerful *anti-oxidant* (1.3.6)
 - Use as *food colorants* (1.3.6): carotenoids find their way into food products by direct addition or indirectly through an animal's food.

Links to other parts of the syllabus are in italic type

1.1.5 VITAMINS

FOLATE

INTRODUCTION

Folate is the name given to a group of closely related compounds derived from folic acid. It is one of the B group of vitamins. The natural form of folic acid, or folate, is found in a variety of foods. Research has shown that folate can reduce the risk of having a baby with a neural tube defect, such as spina bifida. Spina bifida is a defect of the spine found in some babies at birth. It causes severe disability, including paralysis of the legs and mental handicap, and may lead to death.

SOURCES

- leafy green vegetables, potatoes, offal, pulses, fortified corn flakes
- it may also be taken in supplement form as folic acid (the manufactured form of folate).

FUNCTIONS

- Necessary for the synthesis of RNA and DNA, the genetic material that controls the growth and repair of all cells
- Essential for the formation of red blood cells
- Helps support the functions of the immune system
- Reduces the risk of neural tube defects, such as spina bifida, when taken before and during the first twelve weeks of pregnancy
- Recent research suggests that folate may also play an important role in the prevention of heart attacks, strokes, and some common cancers.

DEFICIENCY

- Mild deficiency: fatigue
- Severe deficiency: *anaemia (1.2.4)*
- Neural tube defects: all women *planning a pregnancy (1.2.3)* are advised to take supplements of folic acid, as it is difficult to get the extra folate needed through diet alone. All women of child-bearing age are also advised to consume adequate amounts of folate, so that they will have a sufficient intake if they conceive without planning.

RDA

Adults: 300µg

Pregnancy: 400µg

PROPERTIES

- Water-soluble
- Fairly heat-stable
- Sensitive to light and oxidation
- Stable in an acid environment.

Links to other parts of the syllabus are in italic type.

EXEMPLAR 2

1.2.1 ENERGY

BACKGROUND

The concept of energy is introduced, and its role in the body is explained. The importance of balancing energy intake and output is emphasised.

INVESTIGATION

Students work in pairs or groups to investigate the factors affecting the energy value of foods.

- Take a 100 kcal portion of a particular product in various forms
- Display and compare the size of portions
- Discuss and enumerate the factors that affect the calorific (energy) value of these products

Examples of foods and food products

- Raw apple, applesauce, apple pie, apple juice
- Boiled potato, potato chips, potato salad, cooked potato dish (for example, gratin Dauphinois)
- Steamed white fish, fish in batter—grilled or deep fried
- Raw celery, celery with white sauce, celery and apple salad.

SAMPLE CASE STUDY

Kate is a nineteen-year-old student. Her doctor has explained that her excess weight is contributing to her breathing difficulties and has suggested that she make a real effort to lose some weight. Kate feels she doesn't overeat, but she does admit to eating a chocolate bar for her morning break and a couple of packets of crisps during the day. A sample of her daily diet is given below. Kate's excess weight means that she finds exercise very difficult.

Breakfast:	Mug of coffee
Lunch:	Bag of chips and a sausage, a can of cola
Dinner:	Deep-fried fish fillet, potatoes, baked beans
Dessert:	Apple pie and ice-cream
Other:	Three slices of toast after school Tea and ham sandwiches before bed

- What daily intake of energy would be recommended for Kate?
- Kate doesn't eat a huge quantity of food, but is the food she is eating healthy? Using food composition tables, calculate the number of kilojoules Kate is consuming in one day. You will have to work out approximate weights first. You can assume that portion sizes are average. How does this compare with her recommended daily intake?
- Design a healthier daily menu for Kate, which will keep her energy intake below her energy output.
- Suggest some dietary and behavioural changes that will help Kate achieve a more healthy weight.

A variety of case studies presenting different situations could be presented using this model.

This case study could then be followed by a practical cookery class based on planning healthy substantial meals, with the emphasis on keeping energy intake lower than energy output.

LINKS TO OTHER PARTS OF THE SYLLABUS

Topic	Reference
Energy value of protein	1.1.2
Energy value of carbohydrate	1.1.3
Energy value of lipids	1.1.4
Dietary guidelines	1.2.2
Food composition tables	1.2.2
Dietary and food requirements	1.2.3
The Irish diet	1.2.4
Meal management and planning	1.3.3
Food processing and packaging (food labels—information and energy)	1.3.5
Consumer choices: energy information on labels, foods marketed as low-energy food	2.2.1

EXEMPLAR 3

1.2.4 THE IRISH DIET

Changes in food and eating patterns in the Irish diet
from the beginning of the twentieth century**A BRIEF HISTORY OF FOOD AND
EATING PATTERNS DURING THE
TWENTIETH CENTURY**

Agricultural reform in the late 1800s resulted in a fall in the potato acreage, from over one million acres in 1870 to just over half a million acres in 1900. The diet of the general population had greatly improved. Poverty, however, persisted, especially in the cities. Home-made bread (sometimes of flour, sometimes of Indian meal) and porridge and stirabout were also staple foods at this time. The introduction of white bread and tea to the ordinary household of the second half of the nineteenth century changed the diet pattern of the Irish, and home-baked wheaten bread suffered a decline. While bacon and eggs as a breakfast dish became popular with the middle classes in the second half of the nineteenth century, porridge was still eaten as a first course and always given to children and servants. In addition to oatmeal porridge, various corn and meal mixtures were eaten and drunk. Whole-hulled wheat boiled in milk was popular, as was raw oatmeal eaten with thick milk or cream or buttermilk.

The changes in dietary patterns seen in the last century correlate with changes both in agricultural production methods and in changes in food retail and distribution. Dietary surveys at the beginning of the twentieth century reveal that the daily adult consumption of sugar increased ten-fold between 1860 and 1900. Between 1863 and 1904 there were remarkable changes, including a very considerable increase in the fat component of the diet—associated in turn with increased consumption of dairy products and meats— and a decrease in carbohydrate consumption. In the first decade of the twentieth century, more and more people in rural areas were beginning to have access to shop goods, which were often regarded as superior to those produced at home.

THE IMPACT OF THE TWO WORLD WARS

The First World War had a considerable impact on the Irish diet and on that of the urban working class in particular. Unemployment was extensive, and food prices were markedly increased. By the mid-1930s the Irish diet was, however, still comparatively low in fat and high in carbohydrate. The Second World War caused temporary supply problems but not fundamental changes to the Irish diet. It was the 1960s that were the years of great change. These were the years in which new foods (such as French, Italian, and Chinese) were introduced and accepted in certain sub-groups in urban areas. The consumption of beef, pork, poultry and margarine increased, while the consumption of potatoes, bread and flour decreased.

**INTAKE OF NUTRIENTS
FOR 1961 AND 1971**

Nutrient	1961	1971
Calories	2,689 Kcal	2,539 Kcal
Carbohydrate	361 g	300 g
Percentage energy CHO	54%	47%
Fat	89 g	97 g
Percentage energy fat	30%	35%
Protein	105 g	110 g
Percentage energy protein	16%	18%
Polyunsaturated fats	4.6 g	6.1 g

There was a decrease in the total energy and carbohydrate intake and an increase in the total intake of fat, protein, and polyunsaturated fats.

Before 1990 the last National Nutrition Survey was carried out between 1946 and 1948. It consisted of a dietary investigation of 2,350 families, divided fairly evenly between urban and rural areas. The results were generally satisfactory for the population as a whole (for example, where children were concerned, about 75% were classified as being in a 'good nutritional state' whereas about 2.5% were defined as being in a poor nutritional state.

**COMPARISON OF THE AVERAGE DAILY NUTRIENT
INTAKE PER CAPITA PER DAY IN 1948, 1990, AND 1999**

	Energy MJ	Percentage protein energy	Percentage fat energy	Percentage carbohydrate	Calcium	Iron
1948	13.04	13	29	58	1,369	20
1990	9.79	15	36	49	1,075	12
1999	9.35	17	34	46		

The higher energy and nutrient intakes in the 1946–48 survey are extremely striking. This can possibly be explained by the higher energy expenditure of the general population as a result of factors such as greater physical labour, less transport, few labour-saving devices, and poorer housing quality, insulation, and heating. There has also been a marked increase in relative fat intake (of which saturated fat forms the greater part); and a significant decrease in iron intake. The high consumption of milk at this time can possibly be attributed to the large percentage of farming families in the 1948 survey. The higher potato intake in 1948 contributed to the higher energy intake, although a hundred years earlier, in 1840, the Irishman's diet consisted of 10 lb or 4,800 g of potatoes and 1 pint whole milk per day. The 1990 cheese intake is double that of 1948. In the mid-1940s there was relatively little purchasing of 'shop goods'. The intake of vegetables in 1990 is less than half that of 1948.

Comparing the percentage of energy derived from protein, fat and carbohydrate from 1863 to 1990, it is seen that the fat intake has increased dramatically, from 24% at the beginning of the century to today's level of about 36%, and correspondingly the carbohydrate content has decreased. Dietary fibre has fallen over the last fifty years to about 90% of the mid-1930s level, from just over 20 g per capita per day to about 18 g per capita per day. While the two world wars caused temporary disruption to the Irish diet, it was the 1960s that were the years of great change.

The main cook in Irish households is currently the housewife. A study entitled 'The Irish Housewife: A Portrait' by Irish Consumer Research Ltd 1986 revealed that although the housewife is concerned to provide meals that will be eaten and enjoyed, she has diverse tastes to try and satisfy. Husbands tend to be conservative and want the basic traditional dishes, while children, almost universally it seems, want burgers, chips, sausages, tinned baked beans and fish fingers all the time. Most children are not keen on fish or on salads or vegetables, apart from baked beans.

EXEMPLAR 4

1.3.1 STRUCTURE OF THE IRISH FOOD INDUSTRY

The Department of Agriculture and Food is the primary regulator of food production in Ireland. Other Government departments, such as the Department of Health and Children, play a significant role. However, many important functions are delegated to agencies that act independently of the central structures of government.

STATE DEPARTMENT AND AGENCIES FOR THE FOOD AND DRINK INDUSTRIES

- Department of Agriculture and Food
- An Bord Bia
- An Bord Glas
- Bord Iascaigh Mhara
- Department of Communication, Marine and Natural Resources
- Teagasc
- Enterprise Ireland
- Food Safety Authority

FOOD SECTORS

The Irish food industry is made up of nine different sectors:

1. Dairy and ingredients
2. Lamb
3. Poultry
4. Pig meat
5. Beef
6. Edible horticulture
7. Mariculture
8. Beverages
9. Prepared consumer foods
 - There are more than 700 food and drink companies
 - Food and drink companies provide 25% of manufacturing employment
 - The total value of the Irish food and drink industry in 1999 was more than £10 billion.

MAJOR FOOD EXPORTS

- **Dairy and ingredients:** Increase in whole milk powder, butter and cheese, decrease in milk
- **Lamb:** Principal market in France. Recent growth in market to Mediterranean
- **Pork and bacon:** World oversupply has adversely affected pig meat. Principal destination is Germany
- **Beef:** Britain is our principal market. Netherlands, Italy and France as core target markets. Egypt, Russia and the Persian Gulf remain significant markets
- **Horticulture:** Fresh mushrooms are our biggest export, mainly to the British market. Fifty per cent of British retail sales are Irish
- **Beverages:** Increased growth in beer, cream liquors, spirits, mineral waters, and soft drinks
- **Prepared consumer foods:** Big increase as a result of life-style changes. Specialist food and drinks have also increased.

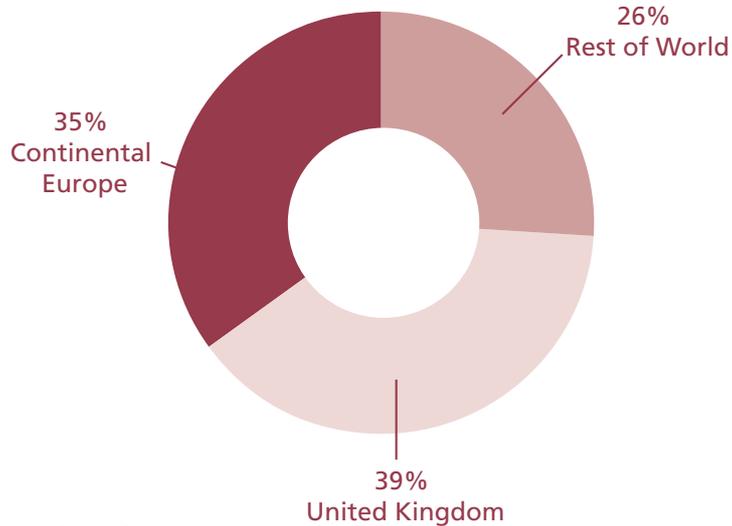
FOOD EXPORTS

IRISH FOOD EXPORTS ARE 10% OF ALL EXPORTS

In 1999 Irish food exports were £5.2 billion (6.6 billion euro)

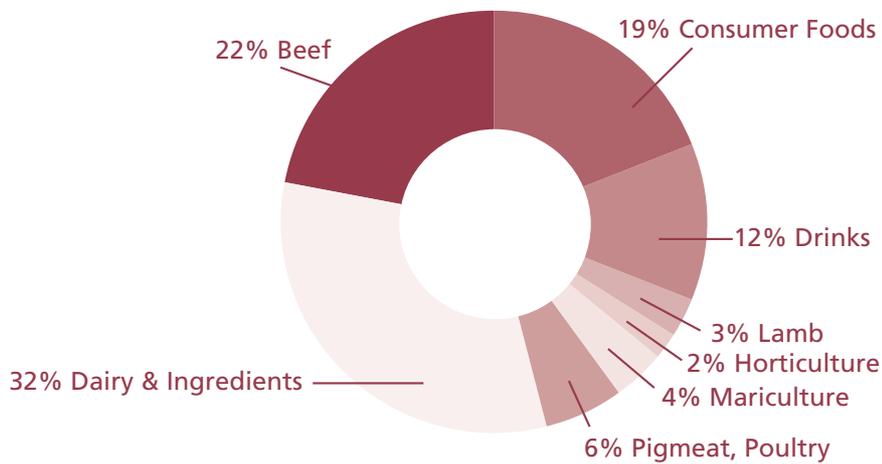
EXPORTS

MARKET DISTRIBUTION OF EXPORTS BY VALUE, 1999



An Bord Bia, 2000

DISTRIBUTION OF EXPORTS BY SECTOR, 1999



An Bord Bia, 2000

Prepared consumer foods had the biggest export growth in recent years. Within this sector, ready meals and convenience foods and other value-added foods demonstrated the highest growth of any food category, while confectionery also performed well.

MAJOR FOOD IMPORTS

Almost all the foods we export we also import. We import food when our own produce is out of season, or when we have not enough to meet consumer demands. However, there are many foods and food ingredients that we consume that we do not produce in Ireland. Many imported foods are packaged here or in Britain. Some examples of imported foods are given under the headings below.

Type of food	Food	Country of origin
Fruit	Melons	Spain
	Oranges	Spain
	Pineapples	Costa Rica
	Satsuma	South Africa
	Apples	South Africa
	Kiwi fruit	Chile
	Grapes	Mexico
Vegetables	Chilli peppers	Zambia
	Mange tout	Zambia
	Green beans	Egypt
	Sugar snaps	Kenya
	Fennel	Italy
	Spinach	Spain
	Peppers	Spain
Herbs	Coriander	Israel
	Basil	Israel
Miscellaneous	Tinned spinach	Italy
	Tinned tomatoes	Italy
	Tea	Sri Lanka and Kenya
	Coffee	Colombia, Costa Rica, Kenya
	Dried pasta	Italy
	Soya sauce	Hong Kong
	Stir fry sauces	Australia
	Casserole sauces	South Africa
	Olive oil	Italy, Spain
	Jars of asparagus	Spain
	Bottled water	France
	Maple syrup	Canada
	Cheeses	France, Netherlands, Italy, Denmark
Salami	Germany	
Pâté	Belgium	

ROLE OF SMALL BUSINESSES AND HOME ENTERPRISES

These come under the heading 'Irish speciality food and drink'. In promoting these, An Bord Bia refer to two important elements:

1. A fertile landscape, covered predominantly by well-watered grass, that provides perfect growing conditions for both livestock and crops
2. Highly skilled producers, who possess a unique understanding of and respect for the goodness this land produces.

Many of these businesses are family-run, and they incorporate natural ingredients in a diverse range of food and drink products. Many use recipes handed down through the generations, while others add new influences from further afield. Companies operate to European hygiene and safety standards and are dedicated to achieving excellence in product quality and customer service.

Speciality food and drinks have eight sectors:

1. **Bakery:** soda bread, biscuits, cakes, puddings, waffles, gluten-free flour
2. **Beverages:** beers, apple juice, mineral waters
3. **Condiments:** sauces, dressings, relishes, flavoured oils, herbs, mustards
4. **Confectionery:** sweets, chocolates, toffees, desserts, popcorn, truffles
5. **Dairy:** Cheeses, yoghurts, dairy spreads
6. **Prepared foods:** chilled vegetable products, frozen meals, frozen vegetables, prepared desserts, prepared salads
7. **Preserves:** jams, chutneys, marmalades
8. **Speciality meats and fish:** smoked fish, frozen mussels, black and white puddings, organic meats, spiced beef, ham, sausages, gourmet pork and bacon products.

HEADINGS FOR INVESTIGATION OF LOCAL FACTORY OR BUSINESS

- When was it set up?
- Why did it set up in the area?
- Are the suppliers local?
- Does this contribute to the area?
- How many people are employed?
- Have they plans for expansion?
- Have they plans to increase employment?
- What type of aid or grants was and is available to them?
- Have there been changes in any area since they have been established?
- What type of research was needed?
- What is their largest market?
- How do they market their product?
- How do they promote their product?
- What type of quality control do they use?

CAREERS OPPORTUNITIES IN FOOD INDUSTRIES

1. Supplying
2. Production
3. Marketing
4. Retailing
5. Catering
6. Food technology
7. Food chemistry
8. Food research
9. Nutrition research
10. Dietetics
11. Quality control

Careers under each of the headings above could be investigated under the following:

- type of employment available
- form of training required
- length of training
- type of awards for training
- further training.

EXEMPLAR 5

1.3.2 FOOD COMMODITIES—FISH

Suggested approach to teaching a food topic,
with examples of crosslinking**AIM**

- To clarify the depth of treatment appropriate in 1.3.2 food commodities and to identify where cross-links may apply

NUTRITIONAL SIGNIFICANCE

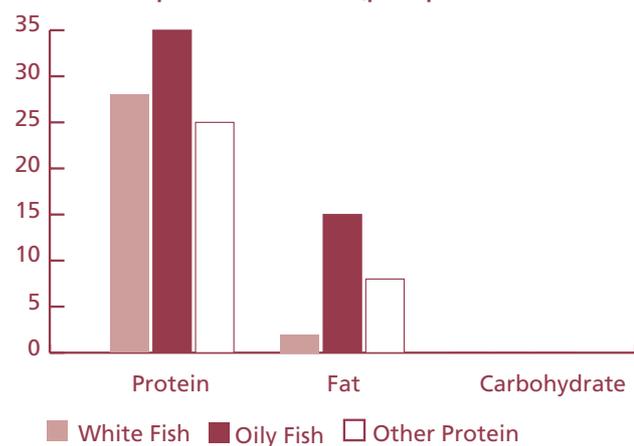
- The percentage composition of nutrients of cooked white fish, oily fish and processed breaded fish and the nutritional significance of this
- Use of bar charts to compare the main nutrients in the different categories of fish and to compare fish with other protein foods.

BAR CHART

(to stimulate discussion on the main nutrients in fish)

This bar chart compares the macronutrients in a portion (130 g) of two types of fish; grilled cod steaks and baked kippers, with a grilled lean pork chop (portion: 130 g).

Nutrition comparison of two types of fish and another protein food (per portion of 130 g)



The table below illustrates the amount of each nutrient in a similar portion of grilled cod steak, baked kippers and grilled lean pork chop (each portion = 100 g).

	White fish	Oily fish	Other protein food
Protein	27 g	33.2 g	25 g
Fat	1.2 g	14.8 g	8 g
Carbohydrate	0	0	0
Calcium	13 mg	83 mg	7 mg
Iron	0.5 mg	1.8 mg	1 mg
Vitamin A	0	64µg	0
Vitamin C	0	0	0

CONTRIBUTION TO THE DIET

Fish is a valuable source of high biological value protein. It provides protein of a similar quality and amount to that found in lean meat. It is therefore valuable in the diet of children, adolescents, and pregnant and nursing mothers.

White fish contains only traces of fat and is therefore an excellent food for low-calorie diets. The fat contained in oily fish is high in polyunsaturated fatty acids and is therefore useful in low-cholesterol diets. This fat is also very digestible. This, combined with the high amount of protein, makes fish an excellent food for the elderly and those recovering from illness. (1.2.4 *The Irish diet*, 1.3.3 *Meal management, and planning* and 1.3.4 *Food preparation and cooking processes*)

SELECTION

- Availability: students could research the types of fish available in the different outlets in their locality and compare cost (2.2.1 *Consumer choices*)
- Students should be aware of what to look for in a good fish shop: hygienic practices, good turnover of product, good value, knowledgeable and helpful staff.

How to recognise fresh fish

- The eyes should be clear and shiny and look full
- The flesh should look plump and moist
- The skin should be moist and shiny
- Characteristic marks should be bright and prominent, for example orange spots on plaice
- There should be no unpleasant odour
- The scales should be tight
- The flesh of white fish fillets should be a really white colour, moist and plump-looking.

Choosing shellfish

- Shellfish should have a clean, fresh smell
- Molluscs should not be open
- Crustaceans should be alive and very active.

Investigation of fish products

- Range of products available
- Check percentage fish content
- Compare nutritional value with fresh fish
- Compare costs.

(1.3.5 Food labelling as a source of consumer information)

Preparation of fish

- Preparation of round fish for cooking
- Skinning fish fillets
- Recognition of different cut
 - fillets
 - steaks
 - cutlets
 - tailpiece.

(1.3.4 Food preparation and cooking processes)

Storage of fish

- How fish deteriorates after catching
- How to store fish (short term) and the importance of storing at cool temperatures.

Cooking

Principles underlying the cooking of fish and the application of these principles:

- The structure of fish and how this is affected by cooking
- The effects of overcooking
- The effects of heat on protein
- The effects of different methods of cooking on nutritive value
- Recommendation of suitable cooking methods.

(1.1.2 Properties of protein and 1.3.4 Food preparation and cooking processes)

Processing

- Identification of different methods used to preserve fish: canning, freezing, smoking, fish products *(1.3.5 Food processing and packaging)*
- Preservatives commonly used in fish products. Identification of preservatives and reasons for use *(1.3.6 Food additives)*
- Commercial freezing—underlying principle and methods of freezing fish and other foods *(1.3.9 Preservation—commercial freezing)*.

EXEMPLAR 6

1.3.4 SENSORY EVALUATION AND SENSORY ANALYSIS

HIGHER LEVEL ONLY

The materials below have been provided to assist students in the practical applications of sensory analysis. This is particularly important in area of practice E—Comparative analysis, where students will be expected to critically evaluate dishes or products and develop the skills and language of sensory analysis for the completion of the food studies assignments.

SENSORY EVALUATION

Food choices are influenced by economic, social and cultural factors as well as, nutrition and convenience.

However, sensory evaluation is important in determining the acceptability of food to the consumer. Sensory evaluation is dependent on the five senses, on the food itself, and on the person evaluating it. Of these, taste and smell are most commonly associated with the appreciation of food. Flavour is a mixture of taste, mouth feel, and smell.

Taste is sensed by the taste buds on the tongue—sweet, sour, salt, and bitter.

- Sensory descriptors for taste include: sweet, acid, bitter, bland, salty, sour, spicy, tangy, tasteless, creamy, burnt, stale
- Saliva helps taste by dissolving and diluting substances and by controlling temperature. Dry substances cannot be tasted. Crystals of sugar or salt will not arouse a taste sensation until dissolved by saliva
- Natural and synthetic flavours are used to replace those lost during food processing. Monosodium glutamate is used as a flavour-enhancer in processed foods.

Mouth feel is where the nerves in the skin of the mouth are stimulated by thermal or chemical reactions—coldness of ice cream, painful burning sensation of chilli.

- Mouthfeel refers to how the food feels in the mouth—brittle, chewy, crisp, dry, fizzy, greasy, flaky, juicy, lumpy, smooth, sticky, slimy, warm, cold, hot, crumbly, tender
- Processed foods have ingredients added to improve mouth feel:
 - gums and starches add creaminess to dried soups
 - modified starches result in increased smoothness in processed foods
 - humectants such as sugar syrups, honey, glycerol and sorbitol help retain moistness in cakes
 - fats with extra emulsifying agents allow an increase in the water added to a cake batter, which in turn allows

more sugar to be added, which gives a sweeter cake, capable of retaining moisture and mouth feel for longer periods.

Smell evaluates the aroma of the food.

- This olfactory sense is important in the enjoyment gained from eating food. A pleasant aroma makes food appetising, and smell is important in the appreciation of flavour
- The nose is a more sensitive chemical receptor than the tongue. However, smells are difficult to measure by physical or chemical means, and there is no satisfactory definition or classification of smells or explanation of how they are distinguished by the olfactory organs
- To arouse a sensation of smell, a substance must be in a gaseous state
- Smell is useful in detecting fresh, rancid or poisonous food.

Texture refers to the consistency of food as perceived by the eyes and by the senses of the skin and muscles of the mouth.

- Sensory descriptors for texture include hard, viscous, elastic, sticky, chewy, gritty, grainy, fibrous, flaky, crispy, nutty, smooth, and tough
- High-quality and well-prepared food can be crisp, tender, crunchy, juicy, creamy, or soft
- Poor-quality food might be greasy, rubbery, slimy, lumpy, or tough
- Textural contrast is an important aspect of menu planning
- When foods have a bland flavour, texture becomes the more important sensory attribute in stimulating the appetite.

Sight evaluates the appearance and colour of foods and is an important factor in the initial choice of food.

- Sensory descriptors for appearance include appetising, moist, mouth-watering, attractive, colourful, red, green, clear, cloudy, soggy, dry, fresh, and bright
- The shape, size, colour and surface appearance of food all influence the consumer and determine whether they like or reject a food
- Sight is used to judge food quality and freshness, for example fruit, fish
- Some foods lose colour in processing and have to be artificially coloured to be acceptable to the consumer, for example peas, smoked fish
- Colours are associated with acceptance or rejection of foods, for example a colour acceptable in some foods would be unacceptable in others, such as green in vegetables, but not in meat; mould in blue cheese, but not in bread
- Certain flavours are associated with colour, such as strawberry (red).

Hearing considers the sounds made by food during preparation and consumption.

- Coffee percolating; corn popping; jam bubbling; sizzle of frying food; snap, crackle and pop of breakfast cereals; fizz of drinks.

Sensory analysis

This involves the measurement, analysis and interpretation of organoleptic properties in food, such as flavour, texture, appearance, odour, and aftertaste. Sensory analysis involves determining a product's characteristics by using the five senses.

Sensory analysis tests

There are a number of sensory analysis tests, and students may choose whichever tests are appropriate to the particular food assignment being carried out.

Tests designed to meet the requirements described above are carried out under controlled conditions, and results are analysed. **Three types of tests** are used in sensory analysis.

1. Preference tests are used to determine which product is preferred or if products are acceptable:

—*Paired preference test*: Two samples are presented, and the taster is asked to identify which one they prefer

—*Hedonic ranking test*: One or more samples are ranked on a five-point or nine-point verbal or facial scale, which indicates the degree of liking for a product.

2. Difference tests are used to detect small differences between samples. The direction of the difference may also be identified:

—*Simple paired test*: Two samples are presented. State whether they are the same or different

—*Paired comparison test*: Pairs of samples are presented. State the difference between the samples with regard to a particular characteristic, for example saltiness, sweetness, toughness. (Which is sweeter? tougher?). Useful if comparing home-made and commercial samples of the same food

—*Triangle test*: Three samples are presented, two of which are exactly the same. Identify the sample that is different. This is used to find out if people can tell the difference between foods. Useful where there are small differences, for example comparing the amount of sugar in foods or when comparing two brands of the same food, for example beans, margarine.

3. Grading or quality tests are used to rank specific organoleptic characteristics of foods:

—*Ranking test*: This test is used to sort a choice of foods (usually between two and twelve samples) in order. They can be ranked

- according to the food that is preferred (hedonic ranking) or
- for one particular characteristic, for example colour, flavour, tenderness. Useful for food manufacturers when modifying ingredients in foods, for example amount of sugar.

—*Rating test*: A rating test is used to find out

- how much someone likes or dislikes a food (hedonic rating scale) or
- to compare two or more foods for different aspects of quality. The scales are usually five, seven or nine-point scales.

An example of a five-point hedonic verbal scale	An example of a seven-point verbal scale on moistness
1. Like a lot	1. Very moist
2. Like a little	2. Moist
3. Neither like nor dislike	3. Slightly moist
4. Dislike a little	4. Neither moist nor dry
5. Dislike a lot	5. Slightly dry
	6. Dry
	7. Very dry

To avoid error, conditions for testing should be controlled:

- Timing of tests: mid-morning or mid-afternoon (tasters will have better taste sensitivity). Do not eat strongly flavoured food 30 minutes before tasting
 - All foods should be at the same temperature
 - There should be a similar quantity of food in each sample
 - Provide rinsing water for each taster
 - Containers should be of identical size, shape, and colour (white or colourless)
 - Coding of samples should not give any clues or information about the test, for example, ABC or 123
 - Samples can be sequenced
 - randomly (useful for large number of samples)
 - balanced (useful for triangle tests) - every possible order occurs an equal number of times AAB ABA ABB BAA BAB BBA
- A = control
B = sample
- using a combination of random and balanced.

The results of tasting sessions needed to be presented and analysed to identify what changes need to be made to the product. However, since each person will make his or her own individual judgement, it is not always consistent.

The results can be presented on:

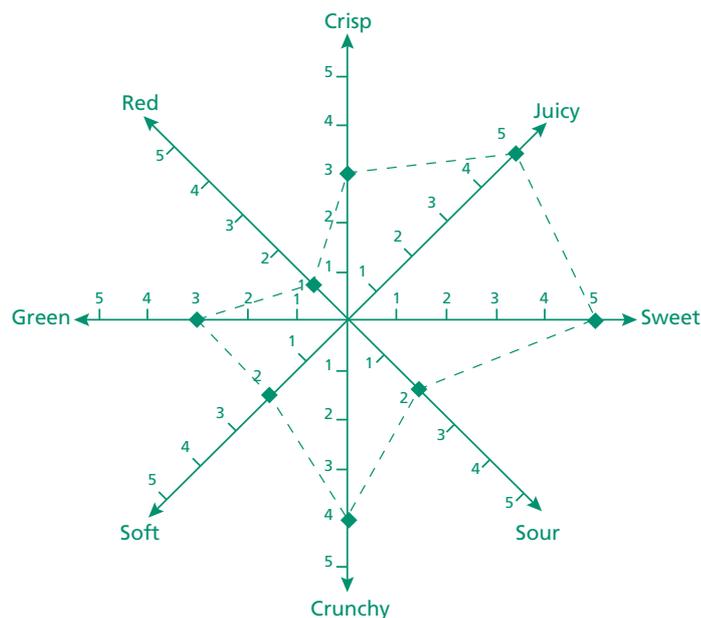
- a pie chart
- a histogram
- a star diagram.

Star diagrams are used by the food industry to describe the appearance and taste of food. It is easy to compare products, as differences are quickly observed on the star diagram. Several factors can be compared at once, such as the sweetness and crispness of a biscuit. From the star diagram a product profile can be written, describing how it looks and tastes.

To use a star diagram:

- Draw a graph with eight lines, as illustrated
- Label each line with a sensory descriptor that describes the food or product, for example crisp, sweet, tough, soft, smooth
- Mark each line on the graph with a scale of 0 to 5
- Taste the food and give each word a score out of 5. (0 = not at all, 3 = all right, 5 = very...)
- Mark each score on the graph, and draw the lines to form a star diagram to show the product profile.

The star diagram below illustrates the results obtained with an apple.



“The apple is green with a little red, quite crisp and very juicy, very sweet but just a little sour, very crunchy and not soft.”

EXEMPLAR 7

1.3.5 FOOD PROCESSING AND PACKAGING

PROFILE OF FOOD THAT UNDERGOES EXTENSIVE PROCESSING - WHEAT FLOUR

Wheat, like all cereals, is essentially a cultivated grass. It originated more than 10,000 years ago. Within the following thousand years it was discovered that if the grain was crushed it became more palatable. Milling had been introduced. Roughly 520 tonnes are grown each year. It can be grown in a wide variety of climates; the type of wheat depends on the climate.

Winter wheat is grown in temperate climates, such as our own. In Ireland it is planted in autumn and harvested in the late summer.

Spring wheat is usually grown in March and harvested in September. Its shorter season gives lower yields, and consequently a higher protein (gluten*) content.

***Gluten:** The two proteins glutenin and gliadin convert to a substance called gluten when moistened. Gluten is essential in the making of bread and cakes, because of its elastic properties. This allows the dough to expand and hold the bubbles of air, that are produced by the raising agent. In the heat of the oven the gluten coagulates, and the baked product sets in its risen, aerated state.

Most of the wheat used for milling in Ireland is grown here. The flour millers import the remainder they require from abroad, mostly from EU countries: Britain, France, Germany, and Spain. Some is imported from Canada and the United States.

THE STRUCTURE OF A WHEAT GRAIN

Wheat is a tiny egg-shaped seed. At the top is a tuft of hairs called the "beard", and at the other end, where the grain was attached to the stalk, is the germ. The edible part of the grain consists of three layers:

- 1. The bran:** This consists of layers of cellulose, which are indigestible but important in the diet, as they provide roughage. Bran is rich in B vitamins, particularly niacin. It also contains calcium, iron and phosphorus.
- 2. The endosperm:** This is the food reserve of the grain. It consists of an outer aleurone layer, which contains protein. The remainder consists mainly of starch. It also contains the protein gluten and B group vitamins.

- 3. The germ:** This is the most nutritious part of the grain and contains all the nutrients needed by the young plant to germinate and grow. It is rich in protein, fat, iron, B group vitamins, and vitamin E. It is usually separated from the rest of the grain during milling. It is sold as wheatgerm.

THE AVERAGE COMPOSITION OF WHEAT

Protein	Fat	Starch	Fibre	Vitamins	Minerals	Water
12.0%	2.0%	65.0%	9.0%	B group, E	Calcium, iron	13.0%

THE MILLING OF WHEAT INTO FLOUR

A modern mill consists of three main sections:

1. The silo
2. The screen room
3. The mill.

1. The silo: When the grain arrives at the mill, it is weighed and stored in large concrete bins called silos. If the wheat contains more than 15 or 16% moisture it is dried; otherwise it would deteriorate very quickly.

2. The screen room: This is where impurities are removed from the wheat. Here it passes through:

- *a separator*, which is a coarse sieve that removes large particles, followed by a fine sieve, which allows fine impurities, such as soil and dust, to pass through
- *a de-stoner*, which removes any stones
- *disc separators*, which separate other cereals
- *a scourer*, which cleans the grain
- *magnets*, which remove any metal objects
- *conditioning* is the process by which moisture may be added to the grain, if it is too dry, in order to make it suitable for rollers
- *blending* involves combining different types of wheat to give the required mixture for milling. This is called "grist".

3. The mill: The grain passes over rollers and through sieves during the milling process:

- *Break roller:* These are ridged rollers that revolve at high speed in opposite directions. They peel the grain open.
- *Sifting:* The open grain passes through ten to twelve rotating sieves placed one below the other. The coarsest mesh is on the top, working down to the finest on the bottom. At each stage of sieving, the rough material is removed, to be passed again through rollers to further break it down.
- *The purifiers:* These use blasts of air to separate bran from the other particles.
- *Reducing rollers:* The grains of endosperm at this stage are still quite large, and need to be ground down further. This is done by passing them through a series of smooth steel rollers until a fine flour is produced.
- *Packing:* The flour and the bran are collected, each in its own channel. They are brought to storage bins or to the packing stations. The flour is filled into 1 kg or 2 kg paper bags for household use or into sacks for small bakeries. It is also despatched to large bakeries by bulk tanker.

ADDITIVES

Calcium carbonate, bleaching agents and improvers such as vitamin C are added.

QUALITY CONTROL

From the time the grain enters the mill until it is distributed to the customer, it is untouched by hand. Samples of the product are tested in a laboratory at various stages to make sure the flour maintains a high standard.

EXTRACTION RATE

Extraction rate means the percentage of the whole grain left in the flour.

Wholemeal	100%
Wheatmeal or brown flour	80–90%
White flour	70–75%

PROFILE OF AN ADDED-VALUE FOOD - CARTON OF FRESH IRISH-MADE TOMATO SOUP

GENERAL INFORMATION

- The company operates under the control of the Department of Health and Children.
- It has a HACCP system. *Link: 1.3.10 Food safety and hygiene.*
- It operates to the standards of the British Retail Consortium Standard, which is more stringent than ISO9000. *Link: 1.3.10 Food safety and hygiene*
- The process used is the stage gate process. This is a systematic product development process. It is like a road map, driving a new product from idea to launch.

SOURCES OF MAIN INGREDIENTS

Vegetables and herbs, tomatoes, onions, celery, carrot, oregano, basil and bay.

These are used mainly fresh. They are supplied from farms approved by An Bord Glas and delivered to vegetable suppliers. Here they are prepared, washed and diced and delivered the same day.

OTHER ADDED INGREDIENTS

Seasonings, flavourings, thickening agent.

TESTING INGREDIENTS

These are tested in the onsite sensory laboratory according to a pre-agreement specification list.

PREPARATION OF INGREDIENTS

Ingredients are then despatched in batch quantities to the process area from the stores. They are then weighed in controlled quantities with predetermined tolerances.

STAGES IN PRODUCTION

1. Vegetables are pre-cooked to soften them
2. Blended to make smooth base
3. Transferred to finish kettle where thickening agents are added
4. Cooked in a controlled manner with defined time, temperature and agitation
5. Cooled, packed and pasteurised in the package
6. Tasted and tested

7. Date-coded
8. Chilled in blast chiller
9. Shrink-wrapped, boxed and palletted
10. Despatched under chilled conditions.

LABELLING INFORMATION

Link to 1.3.7 Food legislation

1. Name of soup
2. Description of soup
3. Name, address and telephone number of manufacturer
4. Heating and microwave cooking instructions
5. Bar code
6. List of ingredients
7. Nutrition information
8. Storage and handling instructions
9. 'Suitable for freezing' symbol
10. 'Microwave symbol'

QUALITY CONTROL

This product is tested at various stages to ensure a high standard of quality.

NUTRITION INFORMATION

Energy	239 kJ
Protein	1.5 g
Carbohydrates	8.6 g
Fat	4.8 g
Fibre	1.15 g
Sodium	0.4 g

EXEMPLAR 8

1.3.10 FOOD SAFETY AND HYGIENE

HAZARD ANALYSIS CRITICAL CONTROL POINT (HACCP)

The letters **HACCP** stand for 'hazard analysis critical control point'. This is a system that can be used by food businesses to ensure that their products do not put customers at risk. It looks for and prevents potential problems before they happen.

Its benefits as a control system are:

- potential hazards are identified **before** there is a problem
- control efforts are concentrated at the stages where the risk is potentially highest
- the process can be controlled immediately by the food business.

HOW IT WORKS

- Points during the production of a product where potential hazards may occur are identified.
- The risk of a particular hazard happening is analysed, and the implication for consumer safety is considered.
- Critical control points are identified.
- Controls are implemented, production is monitored, and action is taken if necessary.
- The HACCP is reviewed regularly and particularly when the food operation is altered in any way.

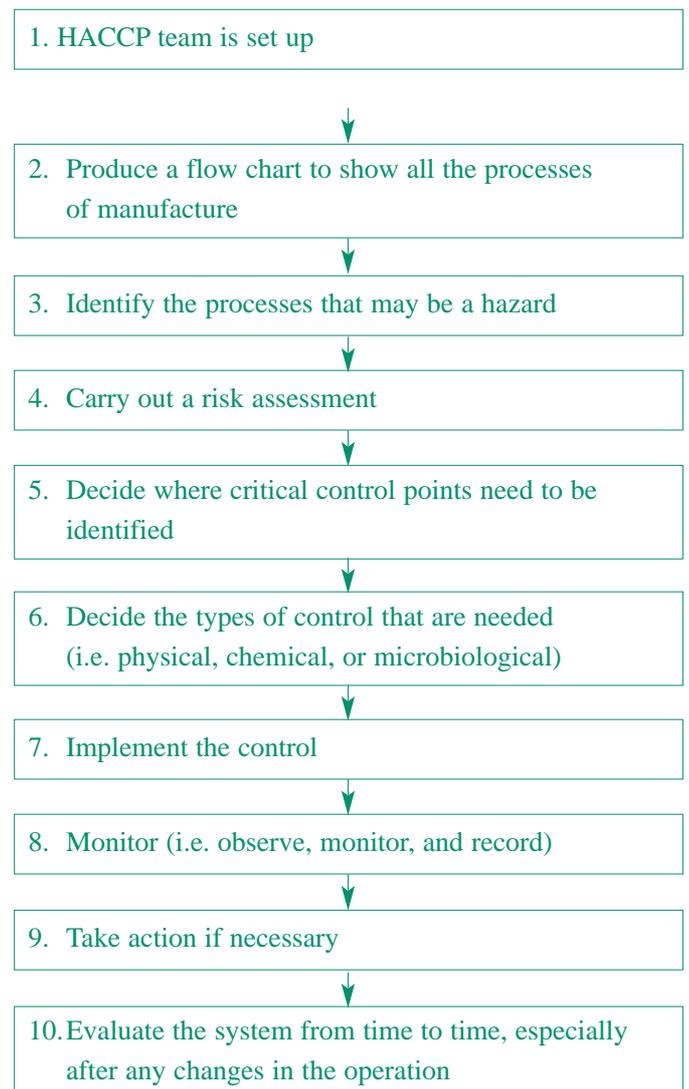
SETTING UP A HACCP SYSTEM

1. A HACCP team is formed. It should be made up of people who are familiar with the business's food processes and products. Members of the team need to have training in food hygiene and in some cases will need expert knowledge in microbiology.
2. The HACCP team draws up a flow chart showing all aspects of the food operation, from raw materials through processing and packaging to storage and preparation for distribution.
3. The team identifies the potential hazards associated with the food at all stages, from the raw materials to the point at which the food is eaten.
4. A risk assessment is made, to estimate how likely it is that a problem might occur.
5. The team decides what steps should be taken to control the process to remove or reduce any physical, chemical or microbiological risks. These are control points, some of which will be identified as **critical control points (CCPs)**.

6. For each control point the team recommends:
 - what** is to be done
 - when** it is to be done
 - who** is to do it.

Particular attention will be paid to critical control points.

7. The recommended monitoring and controls are carried out.
8. Records of the HACCP process and the control monitored at the CCP for each batch of food must be kept, to show that the system is being implemented.
9. Action is taken at the control points if necessary.
10. The HACCP system must be evaluated from time to time, for example annually. If any aspect of the food operation is altered, the system must also be reviewed and altered accordingly.

FLOW CHART FOR CREATING A HACCP SYSTEM

APPLYING A HACCP SYSTEM TO A FOOD OPERATION IN A SCHOOL SETTING

Step	Hazard	Action
1. Purchase of ingredients	<ul style="list-style-type: none"> High-risk (ready-to-eat) foods contaminated with food-poisoning bacteria or toxins 	<ul style="list-style-type: none"> Buy from reputable suppliers only Check temperature of chilled foods at point of purchase
2. Transport of food to school	<ul style="list-style-type: none"> Rise in storage temperature—leading to growth of food-poisoning bacteria Contamination of food by food-poisoning bacteria because of poor handling and storage 	<ul style="list-style-type: none"> Store foods at safe temperatures until last possible moment (in fridge). Wrap well, and transport in suitable containers
3. Storage of food before use	<ul style="list-style-type: none"> Growth of food poisoning bacteria and toxins on high-risk foods Further contamination 	<ul style="list-style-type: none"> Store high-risk foods at safe temperatures Store wrapped and labelled with correct 'use by' date Rotate foods, and use by recommended date
4. Preparation	<ul style="list-style-type: none"> Contamination of high-risk foods Cross-contamination Growth of food-poisoning bacteria 	<ul style="list-style-type: none"> Wash hands before handling food Limit any exposure to room temperature during preparation Prepare with clean equipment, and use this for high-risk foods only Keep raw and cooked foods separate
5. Cooking	<ul style="list-style-type: none"> Survival of food-poisoning bacteria 	<ul style="list-style-type: none"> Cook rolled joints, chicken and re-formed meats, e.g. burgers, so that the thickest part reaches at least 75°C
6. Cooling	<ul style="list-style-type: none"> Growth of any surviving food-poisoning bacteria Production of poisons by bacteria Contamination with food-poisoning bacteria 	<ul style="list-style-type: none"> Cool foods as quickly as possible Don't leave out at room temperatures to cool Cool to chill temperatures quickly
7. Hot-holding	<ul style="list-style-type: none"> Growth of food-poisoning bacteria Production of poisons by bacteria 	<ul style="list-style-type: none"> Keep food hot, at or above 63°C
8. Transport home	<ul style="list-style-type: none"> As for cooling 	<ul style="list-style-type: none"> Cool fully before transporting Package or wrap well Refrigerate as soon as possible
9. Reheating	<ul style="list-style-type: none"> Survival of food-poisoning bacteria 	<ul style="list-style-type: none"> Reheat to above 75°C
10. Chilled Storage	<ul style="list-style-type: none"> Growth of food-poisoning bacteria 	<ul style="list-style-type: none"> Keep temperature at right level Label high-risk foods use by date
11. Serving	<ul style="list-style-type: none"> Growth of food-poisoning bacteria Production of poisons by bacteria Contamination 	<ul style="list-style-type: none"> Cold-service foods: serve as soon as possible after removing from the refrigerator to prevent them getting warm Hot foods: serve quickly to prevent them cooling down

1.3.10 HACCP SAMPLE BASIC CLEANING CHART HOME ECONOMICS ROOM

Area/equipment	Cleaning method	Minimum frequency	People responsible
Worktops	<ul style="list-style-type: none"> Use detergent, sterilant, hot water, clean cloth 	<ul style="list-style-type: none"> After each use 	
Cookers	<ul style="list-style-type: none"> Use appropriate oven-cleaners Wipe down all surfaces and spillages daily, using hot water and detergent 	<ul style="list-style-type: none"> Weekly Daily Clean tiles at back of oven daily 	
Microwave Oven	<ul style="list-style-type: none"> Hot water and food-grade detergent or sterilant 	<ul style="list-style-type: none"> After each cooking session 	
Floor	<ul style="list-style-type: none"> Hot water, detergent, and floor mop 	<ul style="list-style-type: none"> Clean spillages immediately Sweep and wash floor as often as necessary during the day 	
Crockery shelving	<ul style="list-style-type: none"> Hot water, food grade detergent and sterilant 	<ul style="list-style-type: none"> Check for spillages daily Clean completely weekly 	
Walls	<ul style="list-style-type: none"> Hot water and detergent 	<ul style="list-style-type: none"> Clean splashes daily Clean walls weekly 	
Fridges	<ul style="list-style-type: none"> Use hot water and detergent or sterilant 	<ul style="list-style-type: none"> Clean spillages immediately Clean completely weekly; note door and seals especially Defrost as necessary Check temperatures at least daily 	
Freezers	<ul style="list-style-type: none"> Use hot water and food-grade detergent or sterilant 	<ul style="list-style-type: none"> Clean spillages immediately Check for damaged packaging Check seals daily Defrost as necessary Check temperatures 	
Sinks	<ul style="list-style-type: none"> Use detergent or sterilant Disinfect drains 	<ul style="list-style-type: none"> Daily, or when possible contamination occurs 	
Stores and ingredients cupboard	<ul style="list-style-type: none"> Sweep floor daily Check for spillages Use clean cloth and detergent on shelving 	<ul style="list-style-type: none"> Daily Daily Weekly 	
Bins and refuse	<ul style="list-style-type: none"> Empty bin to outside refuse area after every meal preparation and serving Disinfect bin 	<ul style="list-style-type: none"> Daily 	

EXEMPLAR 9

2. RESOURCE MANAGEMENT

2.1 THE PURPOSE OF MANAGEMENT

A general definition of management is planning for and implementing the use of resources to meet demands. Management is both affected by and affects the environment and the system within which it functions. It is not a rigid set of rules and actions but a set of flexible responses to a particular situation and is constantly under review.

The purpose of management is to provide a framework for making choices and taking conscious actions that are meant to reach goals related to the quality of our life and that of others. It influences the quality of life of the individual and the family through the way that resources are directed towards goals. The purpose of resource management is therefore to:

- improve the quality of the individual or family
- improve management practices within the household
- provide a basic tool for achieving desired goals and purposes by using resources to advantage.

MANAGEMENT SYSTEMS

The main literature on management deals with the management of organisations; however, similar rules apply to the management of the home. The systems approach to management originated in the United States in the late 1930s and became more developed in the 1950s. Many of the classic approaches to management used previous to that had ignored the role of the external environment and tended to concentrate on aspects of the organisation rather than viewing it as a whole. A parallel

can be drawn between those previous approaches and the previous approach to **family resource management**. Family resource management was in the past approached as a series of tasks, each requiring individual attention. For example, shopping for food and cooking was viewed as either one or two tasks. Looking after vulnerable members of the family was yet another task, all needing individual attention. Instead of planning for each situation individually, another approach is to provide an overall system.

TYPES OF MANAGEMENT SYSTEMS

This overall system, for example the **family resource management system**, looks at all the tasks and all the available resources, then assigns priorities to them according to values, immediate needs or events. This is done through communication and decision-making by all the people concerned. After implementation, the outcomes of these decisions are evaluated and reviewed regularly.

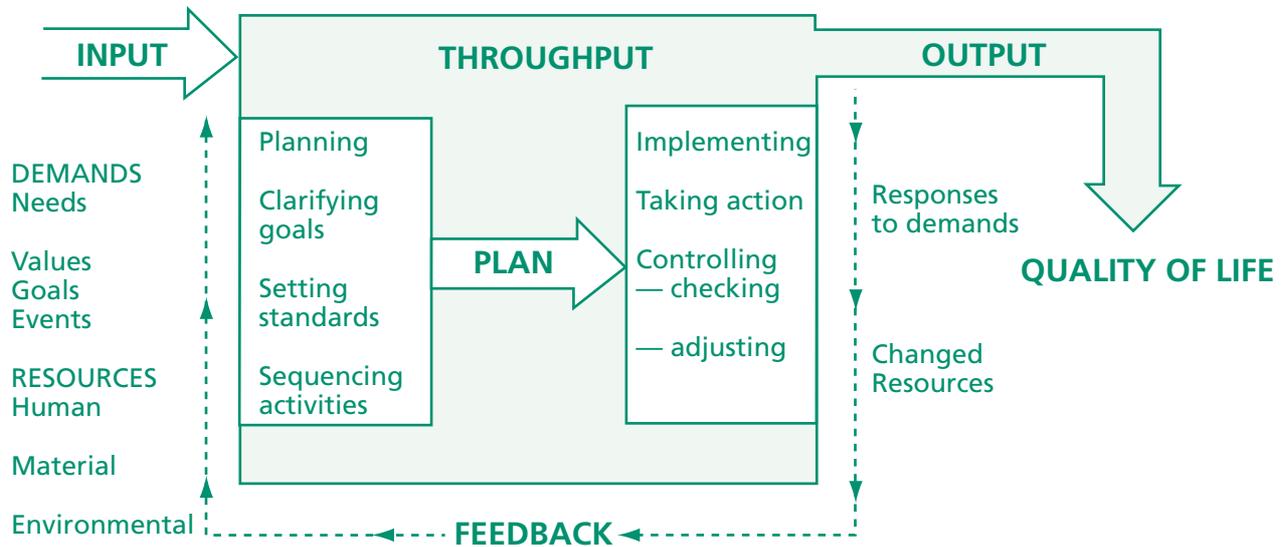
FAMILY AS A MANAGERIAL UNIT

Viewing the family as a system, there are two principal subsystems: the **personal sub-system** and the **managerial sub-system**. The personal sub-system provides values and goal orientations. Each individual will have their own hierarchy of what they consider to be important goals; but for the managerial system to be effective there have to be agreed goals and priorities, so that the finite resources of the family can be best utilised for the benefit of all.

2.1.1 THE COMPONENTS OF MANAGEMENT

There are **three stages** or **components** in the family resource management system and **decision-making and communication**, either by an individual or by the group, is an essential aspect of each stage in the system.

FAMILY RESOURCE MANAGEMENT FRAMEWORK



(i) Inputs: There are two aspects to ‘inputs’:

Demands include needs, wants, values, goals, and events

Goals are derived from values. Values and goals can be adjusted according to a realistic assessment of needs, wants, resources, conditions, and possibilities. In the family system there has to be agreement on what the main priorities are. Applying a value system allows people to access demands, needs and wants and to set those priorities. These values and the eventual outcome of the priorities set are then constantly reviewed and revised in accordance with the feedback from the ‘outputs’.

Resources including human, material and environmental

In most family circumstances, resources are limited and how these will be allocated depends on the goals that have been given priority. These goals, on the other hand, depend on the values of the individuals in the group and should be agreed through discussion.

(ii) Throughputs: This is the action part of the system and consists of two processes:

Planning: Planning includes *clarifying goals, setting standards, and sequencing activities*.

Implementing: This is taking action, controlling and adjusting the action to suit the needs of the situation. In the management system there has to be constant *controlling* by checking the effectiveness of the course of action taken and making adjustments to improve effectiveness.

This is where all the action takes place, and success cannot be achieved if there is not agreement initially on the goals and how resources will be allocated in order to achieve those goals.

(iii) Output: This includes the responses to demands met (goals achieved) and resources used and changes in values or in standards. This is where the evaluation takes place and where the success or failure of the initial strategy is assessed. The results of this analysis and evaluation then influence further decision-making.

FEEDBACK to the ‘INPUTS’ stage is essential to evaluating and making the necessary adjustments to goals and reviewing resources.

DECISION MAKING

In the family resource management system, **decision-making and communication**, either by an individual or by the group, is an essential aspect of each stage in the system.

- (i) Decisions have to be made and agreed about which goals will be given priority. Each person in the family may have their own sub-system, with their own wants, needs, and demands, which will influence how they will wish to give priority to the goals of the family group. However, for the family resource management system to be successful, goals have to be agreed so that resources can be used effectively for the good of all, and this can only be done through proper communication and decision-making.
- (ii) If goals have not already been set it is difficult to move on to clarifying those goals and to set the required standards at this stage. Effective implementation can only be achieved if there is agreement firstly on goals and secondly on how resources will be used to achieve those goals.
- (iii) This is the evaluation aspect of the process. The original decisions made at the first stage have to be evaluated and reassessed in the light of changing needs. What was initially a main priority may not be so important later, and this information must be used to influence future decisions. This information is then used as feedback to help in the formation of new decisions about the next set of goals and again how resources can be allocated to achieve them.

INTEGRATING THE MANAGEMENT SYSTEM TO A PLAN OF WORK

The first management task that the students are required to undertake is the planning, implementation and evaluation of Food assignment 1. It is essential to **the integrated nature** of the revised syllabus that students apply the theory of management from the resource management section of the syllabus and the associated language in their approach to the food assignments. To do this effectively it would therefore be necessary to cover the theory of management first.

Below is a **brief outline** of how the students might incorporate the management system in the planning, implementation and evaluation of the food assignments. This is an example of how the system could be applied, and students themselves would be expected to fill in the details to a standard appropriate for Leaving Certificate. Ordinary level students can concentrate more on the **decision-making at each stage in the management process** rather than the inputs, throughputs, and outputs, which are essential for Higher level only.

Food assignment 1:

Special requirements (dietary, economical and practical) should be considered when planning meals for the elderly.

Identify and elaborate on some of these considerations under the above three headings. Bearing in mind these requirements, investigate a range of main courses suitable for lunch for two elderly people.

Prepare, cook and serve two of the main courses you have identified.

Evaluate the assignment in terms of

- (a) planning
- (b) implementation and
- (c) the specific requirements of the assignment.

Food assignment	Resource management
<p><i>Analysis and investigation</i></p> <ul style="list-style-type: none"> • What demands have to be considered? • Analyse the needs of elderly people under the headings in the assignment: <ul style="list-style-type: none"> —dietary —economical —practical • List the values that are important here • Indicate how these values may affect the diet of the elderly • Considering the available resources (total food budget, skills, equipment, etc.), investigate a range of main courses, appropriate to needs • State clearly why the chosen dishes are appropriate to the resources and needs of the elderly • Set goals: What types of food preparation and cost are economically and practically realistic to suggest for elderly people? 	<p><i>Inputs</i></p> <p>Demands:</p> <ul style="list-style-type: none"> • Needs • Values • Goals • Events <ul style="list-style-type: none"> • Assign priorities to the main goals <p>Resources:</p> <ul style="list-style-type: none"> • Human • Material • Environmental
<p><i>Planning</i></p> <ul style="list-style-type: none"> • Clarify goals: Indicate considerations in decision-making when selecting the main course dish and planning the making of the dish • Investigate: costing and available equipment • Cooking skills required • Time available and time sequence • Presentation and serving <p><i>Implementation</i></p> <ul style="list-style-type: none"> • Implement a plan to cook the dish, following the time sequence • Check the appropriateness of the cooking methods chosen, and the equipment being used, for elderly people • Adjust if necessary 	<p><i>Throughputs</i></p> <p><i>Formulate a plan</i></p> <ul style="list-style-type: none"> • Clarify goals: set standards and sequence activities • Decision-making on choices of dish <p><i>Implement the Plan</i></p> <ul style="list-style-type: none"> • Taking action or controlling <ul style="list-style-type: none"> —checking —adjusting

Food assignment	Resource management
<p><i>Evaluation</i></p> <ul style="list-style-type: none"> • Were the initial <i>goals achieved</i>? • Was the best <i>use made of resources</i>? • Did the dish satisfy the demands: <ul style="list-style-type: none"> —<i>dietary</i> —<i>economical</i> —<i>practical</i>? • Did it fulfil all the essential criteria: <ul style="list-style-type: none"> —<i>nutritionally suited to an elderly person</i>? • Was the dish <i>palatable and well presented</i>? • Could the dish be <i>simplified</i>? • Are the <i>cooking methods</i> suitable for an elderly person? • Did you apply <i>good hygiene and safety practices</i>? <p><i>Recommendations and Feedback</i></p> <ul style="list-style-type: none"> • What recommendations would be made for further dishes for an elderly person? • What changes would you make? • Could the dish be improved <i>nutritionally</i>? 	<p><i>Outputs</i></p> <ul style="list-style-type: none"> • Responses to demands • Changes in resources

EXEMPLAR 10

2.1.3 MANAGEMENT OF HOUSEHOLD FINANCIAL RESOURCES

THE HOUSEHOLD AS A FINANCIAL UNIT WITHIN THE ECONOMY

INTRODUCTION

In examining the importance of the household as a financial unit, it is necessary to place it in the context of overall national expenditure and to view consumer expenditure as a percentage of gross national product. National expenditure is the sum of expenditure by consumers, firms, the Government and foreign industries on domestically produced services and goods.

Looking at **gross domestic product (GDP)** for 1995, the estimate of the Central Statistics Office (CSO) was £38.6 billion for total GDP. By GDP is meant the value of all goods and services produced in the country, regardless of the nationality of the owners of the factors of production. Consumer expenditure for the same period was £22 billion, accounting for 57% of GDP.

The most recent **household budget survey (HBS)**, that of 1994/95, calculated the average household expenditure per household. This survey provides the best source of information about the spending behaviour of the approximately 1.1 million households in the country. A household is defined as a single person or group of people who regularly reside together in the same accommodation and who share the same catering arrangements.

HOUSEHOLD INCOME WITH REGARD TO SOCIAL FACTORS, FOR EXAMPLE, INCOME

Using the HBS as the primary source of information, the total average weekly expenditure for 1994/5 was £311.75. This was slightly higher in urban households than in rural households. Those with lower incomes spent a higher percentage of their total income on food, fuel and light and on housing (except when rent-free).

EXTRACT FROM HOUSEHOLD BUDGET SURVEY, 1994/5

Social group of reference person*	Total weekly household income		Percentage spent on food	Percentage spent on clothing and footwear	Percentage spent on fuel and light	Percentage spent on housing
	£	€				
1	487.93	(€619.54)	17.8	6.2	3.5	11.4
2	362.95	(€460.85)	20.5	6.6	4.3	11.4
3	306.43	(€389.09)	24.2	5.9	5.1	9.6
4	326.76	(€460.61)	23.5	6.1	5.0	9.3
5	225.06	(€285.77)	26.3	7.0	5.8	8.7
6A	264.78	(€336.20)	27.6	7.0	6.2	5.1
6B	148.52	(€188.58)	27.6	5.9	8.1	11.8

*These social groups are based on the occupational category of a reference person in each household. For example, social group 1 includes those in the professions. The pattern, as can be seen in this table, is that food accounts for a smaller percentage of total spending in the wealthier social groups.

EXEMPLAR 11

2.1.5 HOUSEHOLD TECHNOLOGY—CONSUMER
REPORT ON AN APPLIANCE

Students could use this type of consumer report, either individually or in groups, to investigate any of the electrical appliances.

A responsible consumer will make informed choices when selecting goods and services.

You have been given the task of selecting and purchasing a food-mixer for use in a family kitchen.

Complete the following consumer report on the observations that you made while visiting the electrical shop to select and purchase the appliance.

2.2.2 CONSUMER RESPONSIBILITY

The term 'pollution' refers to all forms of pollution, including noise pollution. The damaging effects of exposure to excessive noise levels coming from amplification equipment used at discos and clubs on the hearing of young people or from having the volume too high on stereos etc., should be covered.

OUTLINE OF THE CONSUMER REPORT

Name three brands or companies that manufacture the appliance

Find out the cost of:

(a) a basic model _____

(b) a model at the top of the range _____

Give a brief account of the main features found on the basic model

What extra features were available on the more expensive models?

What quality or safety symbols were on the appliances that you examined?

Did the terms and conditions of the guarantee vary between brands? If yes, give details.

In your opinion, which model is the best buy?

Give three reasons for making this decision.

1. _____

2. _____

3. _____

What precautions should you take when purchasing this appliance to ensure that you would have redress if a fault occurred later?

SOCIAL STUDIES

EXEMPLAR 12

3.1.6 THE FAMILY AS A CARING UNIT

One of the central tasks of families is 'caring': caring for partners, caring for children, and caring for parents.

This is a three or four generation span of care. An important distinction has to be made here between **caring about**—which is about love, feelings, and emotions; and **caring for**—which is an active form of work: a 'labour of love' which involves looking after someone. Normally this care process falls upon the women in the family, although it is usually invisible.

The commitment to care and decisions on whose **role** and **responsibility** it is are usually complicated. It may be negotiated over long periods or it may be implied by family circumstances, for example a family member living in the home. Sometimes there is an unwillingness to engage in or to commit oneself to caring, especially when a particular individual is not given a choice.

Role conflict can cause stress on the caring issue. Although there are signs that some men are playing a small role in it, research has shown that the caring process is closely linked in **modern society** to what it means to be a woman. It is an extension of this "**social mothering**" that makes **women** more prone to having to look after the array of people within the family—and also outside it.

Often the array of family members who will be carers is narrowly defined: usually from spouse to daughter, to daughter-in-law and son. There is a hierarchy of care: sons and daughters define their care duties primarily to their own children and partners and will take on the care of elderly relatives only as a secondary role.

Older people usually do not want to give up their independence and so are looked after at a distance. Research strongly suggests that there is a great deal of care taking place among families today. **Economically**, both household partners must work to ensure the family's **financial** security, thus putting pressure on the "caring family". Both family partners are forced into the "caring

situation" not by choice but of necessity. Men are likely to play **changing roles** in "caring" and to broaden their previously defined role to include their partner's elderly parents.

THE ROLE OF OLDER PEOPLE

In a society that places a high value on youth, vitality, and physical attractiveness, older people tend to become invisible. In recent years we have seen changes in attitudes towards old age. Older people are unlikely to recover the full authority and prestige they used to have according to elders of the communities in ancient societies. Yet as they have come to comprise a larger proportion of the population, older people have acquired independence and more political influence than they used to have. **Activist groups** have also started to fight against **ageism—discrimination** against people on the grounds of their age—seeking to encourage a positive view of old age and older people, to re-establish their **importance** and independence within the family and to reduce **generation conflict** that could occur as a result of feeling dependent and useless, and to prevent loss of status. Ageism is regarding or behaving negatively towards someone merely because they are of a particular age. On a broader scale, to regard 'the old' as a problem group is in itself implicitly ageist.

GENERATION CONFLICT

Generally, young people do not greatly differ from their parents in their attitudes to fundamental **social and political matters**. Surveys on the attitudes of teenagers show that they like their parents, get on reasonably well with them, and are generally satisfied with life. However, young people in contemporary societies are in a different structural position from adults: they have less power and authority. They are also in a situation of **learning and transition**. These factors can lead to some **tension and conflict between** some young people and parents, the aged, teachers and other "authority figures".

ACTIVITIES TO SUPPORT TEACHING OF A TOPIC

<p>1. Brainstorm topic ↓ →</p>	<p><i>Tools for stimulating brainstorm and discussion:</i></p> <ul style="list-style-type: none"> - People: visitors, speakers - Interviews and questionnaires - Newspaper articles and books - Television, radio and videos - Advertisements - Case studies - Role-playing - Teaching packs - Reports and statistics - Information-swapping
<p>2. Pair discussion ↓</p>	
<p>3. Small-group discussion ↓</p>	
<p>4. Class discussion ↓</p>	
<p>5. Debriefing and reporting back ↓</p>	
<p>6. Evaluation ↓</p>	
<p>7. Set homework assignment ↓</p>	

EXAMPLES OF CASE STUDIES

CASE STUDY 1

Gran has recently moved in with her son Tom, her daughter-in-law Mary, and their three children: Paul (15), Sarah (13) and Niamh (8). She has her own bedroom and bathroom. She has dinner with the family each evening and watches television with them at night. Gran is in the house alone until 5 p.m. each day as Tom and Mary are at work and the children are at school. Gran, who is 75 years old, has a good sense of humour but likes to express her opinion.

1. Outline the roles you would expect each person to play in this household.
2. In your opinion what are the responsibilities of each member in this family.
3. List areas of conflict that might arise from time to time in this household between:
 - (a) Gran and Mary
 - (b) Gran and Tom
 - (c) Mary and Tom
 - (d) Gran and the children.
4. How could these areas of conflict be avoided or dealt with?
5. Mention some areas of change in family life since Gran was a child.

CASE STUDY 2

Séamus is a 15-year-old schoolboy. He wants to go to the end-of-term disco in a nearby town. His mother is anxious about letting him go, but his father allows him to go, provided he can collect him at 1 a.m. On the night of the disco when his father arrives to collect Séamus he is not at the agreed place but arrives thirty minutes later. His father notices a smell of cigarettes from his breath. His father is annoyed, as he is offered no explanation or apology.

1. Role-play the conversation that might take place in the car on the way home.
2. Role-play the situation on arrival home to meet his mother.
3. How could any conflict that arises have been avoided or better dealt with?

EXEMPLAR 13

ELECTIVE 1: HOME DESIGN AND MANAGEMENT

4.1.1 HOUSING STYLES

Historical development of housing styles in Ireland from the 19th century onwards

At the beginning of the twentieth century, 70% of Irish people lived in the countryside and 30% lived in cities and towns.

RURAL HOUSING

The most common house in the countryside was the one storey '**thatched cottage**'. The walls of these cottages were thick and solid. The windows were small, which prevented a lot of light getting in. The roofs were thatched with reeds, which grew along riverbanks. Sometimes straw or hay was used. Many cottages had only two rooms: the kitchen, entered through the half-door, and a bedroom to the right of it. The top half of the half-door was usually left open to let in light, and the lower half closed to keep children in, and animals and poultry out.

The kitchen was the centre of the house. It had an open turf fire at one end. In some houses there was a small room up under the thatch where children slept. Some of the family slept on a settle in the kitchen, which was used as a fireside bench during the day. More prosperous farmers had cottages that had an extra room, called the parlour. This room was used only on special occasions. Better-off farmers lived in two-storey stone houses. These had a slated roof and at least five rooms.

The wealthy landowners lived in big estate houses. Because Ireland was a poor country, very few big houses were built in the early part of the twentieth century. There were a number of plain art Deco houses, with flat roofs built. Not until the end of the Second World War did life in the countryside begin to change. The main reason for this was the rural electrification scheme, which the Government introduced in 1946. With the introduction of housing grants, many of the cottages began to change. Some two-storey houses were built. Thatched roofs were replaced with slates. Extra rooms were added. Some people moved into new **Post War** single-storey and two-storey houses, which they built nearby. The old cottage was used as a byre or storehouse. Many of these can be seen today in the countryside.

URBAN HOUSING

Most Irish towns were small at the beginning of the twentieth century and the houses were built around the main streets. These were either terraced cottages or two-storey stone houses. They mainly housed working people. In the cities, many poor people lived in **tenements**. These were large city centre houses, mainly **Georgian** terraces, which were originally owned by wealthy families who had moved to live in newly built houses in the fashionable districts. The large houses were divided up, and rooms were let to poor families. Most could afford only one room.

In the 1930s the Government began to give grants to local authorities to pay for council housing. These houses were built on the outskirts of towns and cities. They were mainly two storey brick houses with plaster walls. Land was too expensive in city centres for single houses. People who did not want to move away from city centres were rehoused in blocks of three-storey **flats with deck** access. These flats had usually two bedrooms and a bathroom. In the 1960s some people felt that **high tower blocks of flats** were a solution to housing shortages. Only one of these developments was carried out, at Ballymun on the north side of Dublin. These flats were not popular with families with small children and are now being demolished.

Private developers built many housing estates. These houses were either **detached** or **semi-detached** with at least three bedrooms. In the cities, suburban development occurred to the detriment of the inner city. Quite a number of Georgian tenements crumbled or were knocked down. **Nineteen-century artisan cottages** still remain in parts of the cities, where many have added extensions to give more room. They still retain the same features, with a door in the centre and two living-rooms opening off it.

POPULAR HOUSING STYLES IN IRELAND TODAY

Today only 43% of Ireland's population live in the countryside. The other 57% could be classified as urban dwellers.

RURAL HOUSING

Many of the houses that existed at the beginning of the twentieth century still remain. Because of new building materials, timber, and paint, many have changed in appearance. Some have extensions or larger windows and are modernised in different ways. The **bungalow** is normally the type of new house found in the countryside today. Particularly popular is the **dormer Bungalow**, which is spacious and yet blends fairly well aesthetically into the countryside. Here and there in the countryside we see mock-**Tudor** and mock-**Georgian** houses. Planning permission is granted only where house designs fit in to the locality. In tourist areas, new **traditional style cottages** have been erected. Some have thatch laid over their tiled roofs.

URBAN HOUSING

Many of the old stone town-houses still remain today. Some are painted with bright-coloured paint. Others have been converted into shops. The occupants of these have moved out to live in suburbia, new housing estates, or bungalows. Fewer people live over businesses, although this is now being encouraged in the inner city.

There has been a long tradition in Ireland of home ownership. The suburbs of towns and cities have developed so much that they are now referred to as urban sprawl. Detached, semi-detached and terraced estate houses are very popular.

In the city centres, local authority flats with pitched roofs and balconies have been built. There has also been considerable development of apartment complexes.

Social, cultural, economic and environmental factors that influence the choice of housing styles

1. Income and employment
2. Location - rural or urban
3. Landscape of area
4. Availability
5. Fashion
6. Personal choice
7. Number in family
8. Interests and hobbies
9. Family member with disability
10. Local planning regulations.

EXEMPLAR 14

ELECTIVE 2: TEXTILES, FASHION AND DESIGN

5.1 CONTEMPORARY CLOTHING AND FASHION

SOCIAL, ECONOMIC AND INDUSTRIAL INFLUENCES ON THE DESIGN AND CONSTRUCTION OF CLOTHING

Influences

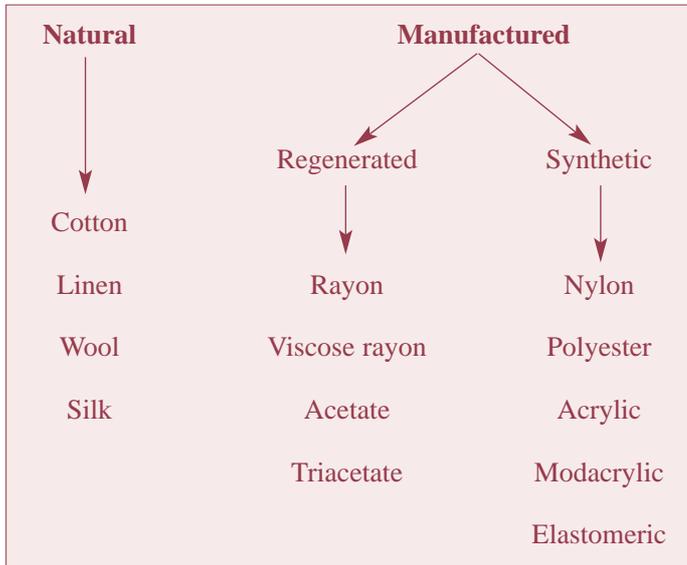
Social	Economic	Industrial
<p>First and Second World Wars</p> <p>People in the public eye e.g., pop stars and film stars</p> <p>Women going outside the home to work</p> <p>Fashion houses and designers</p> <p>Emancipation of women</p> <p>Increased interest in sport for women</p> <p>Cruelty to animals; animals rights organisations, anti-fur campaigns, etc.</p> <p>Aesthetic considerations; sexual appeal</p> <p>New crazes for dancing and music, e.g. 1920s and 1960s</p> <p>Designers like Coco Chanel</p> <p>More emphasis on youth and youth culture</p> <p>Increase in travel</p>	<p>Fashion houses</p> <p>Affluence or otherwise of the people at the time</p> <p>Introduction of 'off-the-peg' and 'prêt-a-porter' clothes</p> <p>Employment and unemployment</p> <p>Imports and exports</p>	<p>Industrial Revolution—the development of power-driven textile machinery in the late eighteenth century meant better cloth faster</p> <p>Discovery of new fabrics especially the synthetics, e.g. nylon</p> <p>The invention of new microfibres, etc.</p> <p>Sweat shops and factories meant cheaper clothes</p> <p>The development of different forms of transport, e.g. the bicycle and the car</p> <p>Invention of cosmetics</p>

EXEMPLAR 15

5.2 TEXTILE SCIENCE

CLASSIFICATION, SOURCES AND USES OF NATURAL, REGENERATED AND SYNTHETIC FIBRES

CLASSIFICATION OF FIBRES



SOURCES

Natural

Animal

Wool
Silk

Vegetable

Cotton
Linen

Mineral

Asbestos

Regenerated

Fibres wholly or mainly made of regenerated cellulose. Spruce and eucalyptus give high-grade cellulose.

Produced by different processes—the viscose and cuprammonium processes.

Synthetic

The primary raw materials for nylon are coal, petroleum, air, and water. These raw materials were modified to produce different polymers and eventually different synthetic fibres.

USES

See profiles.

Fabric profile

Profile of one fabric manufactured from natural fibres

COTTON

Fibre production

- (1) Harvesting is the process, that takes cotton fibres from the seed or boll of the cotton plant. When they reach a certain stage of maturity they are picked.
- (2) Ginning involves the separation of fibres from the seeds in the boll. Unwanted impurities are removed during this process.
- (3) The cotton fibres are then pressed into bales.
- (4) The cotton is graded for sale; this grading will consider the staple length, colour, and amount of impurity present. The quality will vary according to the variety of plant and the growing conditions in the area in which it has been produced.
- (5) When the cotton arrives at the mill the bales are broken up, and residual foreign matter is removed. At this point various grades can be blended by mixing layers from different bales.
- (6) The cotton then passes to a series of machines, which continue to loosen and clean the material by means of fans and beaters, and finally emerges in the form of continuous soft, fleecy sheets known as laps. They are similar to huge rolls of cotton wool.

Properties

- Cotton absorbs water
- Cotton is a good conductor of heat
- Cotton is a relatively inexpensive textile
- Cotton creases easily
- Cotton is stronger when wet than dry, so it can withstand frequent washing and hot water
- It is a durable fibre
- It is attacked by mildew but not by moths
- Sunlight yellows and eventually rots cotton
- Cotton tears easily, because it does not have elastic properties
- Cotton does not accumulate static electricity.

Uses

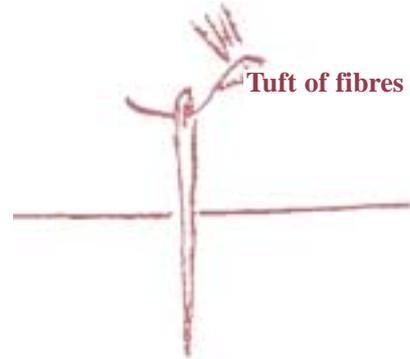
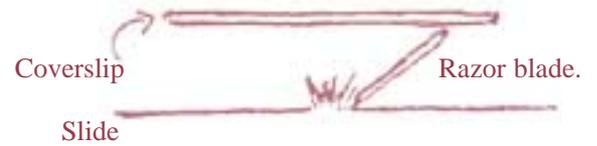
- Clothing
- Bed linen
- Uniforms
- Sewing thread
- Curtains and upholstery materials.

Identification tests**Burning test**

When held over a flame, cotton burns quickly with a yellow flame. It smells of burning paper and leaves a light, feathery grey ash.

Microscopic evaluation of cotton

Information about fibres can be gained by observing them under the microscope in longitudinal and cross-sectional views. For best results, use undyed fibres on a black background. To set up a slide for a cross-sectional view, follow the directions below.

A.**B.**

Fibres packed tightly

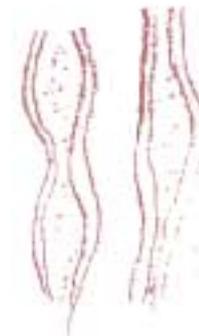
C.

Cross-sectional view: flat, elongated, or kidney-shaped

D.

Longitudinal view

Ribbon-like fibres with convolutions.



YARN PRODUCTION

1. Carding

The aim of the carding process is to completely disentangle the material and remove the last traces of any impurities present.

2. Combing

Cotton is combed if it is to be used for fine, high-quality yarns. The sliver from the carding engine is passed through machines, that make small, compact laps. The cotton is held firmly and combed by pins set in a revolving cylinder. The fibres are aligned, and any that are shorter than the required length are removed. The web produced is then condensed into a sliver.

3. Drawing

The slivers produced by the carding and combing are loose ropes of fibres, and the density is irregular. It is necessary to draw them out to produce regular slivers. The roving is wound onto bobbins ready for spinning.

4. Spinning

Spinning is the twisting together of the drawn-out strands of fibres to form yarns. There are three stages in the spinning process:

- drawing out the roving
- inserting the twist
- winding the twisted yarn onto a bobbin.

Yarn or filament modifications

Modification of cotton occurs when the cellulose of the cotton has been treated to form a chemical derivative of cellulose, giving different types of fibres, with altered properties.

Mergerisation is such a treatment. The process of mergerisation depends on the fact that cotton fibres will swell readily in a solution of caustic soda. The swelling causes an overall shrinkage in the cotton fabric; if the fabric is stretched out during treatment so that it cannot shrink, an attractive lustre is produced. The cloth has a smoother surface. It also has improved dyeing properties.

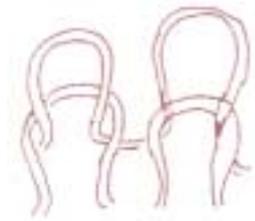
Fabric construction techniques

(Higher-level students should be familiar with three fabric construction techniques.)

There are many ways of constructing fabric. Fabrics may be woven, knitted, felted, bonded, crocheted, knotted, or braided. Most of these methods involve interlacing yarns in some way.

Knitting

The simplest form of knitting, which is used to make fabrics for such things as T-shirts, swimwear, and jumpers, is weft knitting. In weft knitting, the yarn forms horizontal rows of loops across the fabric. A horizontal row of loops in the fabric is known as a course, and a vertical row as a wale.



Weaving

In the weaving process, two sets of threads are interlaced at right angles to each other. The threads that run parallel to or at the same angle as the selvage are called the warp threads. The weft threads run at right angles to the selvage and are usually not as strong as the warp threads.

The warp threads are set up first on the weaving loom. There are many ways in which the weft yarn can be interlaced with the warp yarns when weaving. These different patterns produce fabrics with varying colours and handling properties. The simplest of all weaves is the plain weave. Other weaves include twill, herringbone twill, satin and Jacquard weaves.

Non-woven fabrics

Not all fabrics are made by interlacing yarns. Some are made directly from the fibres. Felt, for example, is made from wool fibres by a process involving heat, moisture, and pressure. Felt can be made from rayon, fur or cotton fibres or combinations of these with wool. As the fibres are not securely fastened, felted fabrics are not very strong and pull apart easily. This means that they cannot be washed, but they can be sponged clean with warm, soapy water.

In bonding, fibres are laid out in sheets and an adhesive glue is applied under heat and pressure. This is a cheap method of producing interfacing fabrics for stiffening clothing and disposable dishcloths.

Felt does not fray or unravel, so it is ideal for hats, slippers and fancy-dress costumes.

FABRIC FINISHES

(Higher-level students should be familiar with three fabric finishes.) Finishing processes are designed to improve the handling and appearance or sometimes the performance of the finished fabric. The finishing will not necessarily be carried out in the final stages of production. Fabric is mercerised at a fairly early stage. The techniques used are wide and varied.

Crease-resistant finishes

Urea-formaldehyde and melamine-formaldehyde are widely used to produce crease-resistant or 'self-smoothing' fabrics. The handle of the treated fabric must not be spoiled, and the finish must be fast to washing. For this reason, the resin is inside the fabric and not merely on the surface. The urea and formaldehyde are reacted together to give a urea-formaldehyde resin, and the fabric is then impregnated with a solution of this water-soluble resin. After drying, the impregnated fabric is heated in order to 'cure' the resin. The resin is then water-insoluble and permanently in the interior of the fibres. This treatment gives the fabric a durable, crease-resistant finish, even with repeated washing.

Flame-proofing

A complex organic compound containing phosphorus and chlorine is applied to the fabric. This will react with ammonia to give an insoluble polymer and a flameproof finish. Care is needed in laundering to avoid impairing the efficiency of the finish.

Water-proofing

It is necessary to differentiate between water-proof and shower-proof fabrics. Water-proof fabric can be produced by treatment with oil, for example oilskins.

Shower-proof finishes can be applied to produce fabric that is still porous. Water-repellent fabrics can be developed by using material that reacts chemically on the fibre to give a compound with the textile material. One method is to treat cellulose with an acid chloride to produce cellulose esters. The surface compound is then hydrophobic and the finish permanent.

Polartec Windbloc has been engineered to combine warmth and comfort of fleece with a windproof, breathable barrier that is water-repellent.

COLOUR APPLICATION

Dyeing

Dyeing can take place at many different points during textile processing. The colour can be added to the spinning solution at the start of the process (this is known as spin dyeing), or the woven or knitted fabric can be dyed.

Stock or fibre dyeing

Loose fibres are dyed before spinning in a vat containing a dye bath. A dye bath is a dye dissolved in water. Most dyes require water temperatures near boiling point to penetrate the fibres well.

Yarn dyeing

Yarn wound onto bobbins or cones placed on perforated steel rods is lowered into the dye bath. Yarn dyeing is often used for fabrics with varying weave patterns or borders.

Piece dyeing

The whole length of fabric is made and then put through the dye bath. Dye cannot always penetrate to the fibres, however, and when the yarn is pulled out, the undyed section can sometimes be seen. A good dye is colourfast, lightfast, insoluble in dry-cleaning fluids, perspiration-fast, and salt and chlorine-proof.

Printing

Printing decorates the surface of fabric. Thickened dye is laid on the surface of the fabric to form a pattern. After printing, the fabric is heated by steaming to fix the printing paste in the fabric. There are four main types of printing:

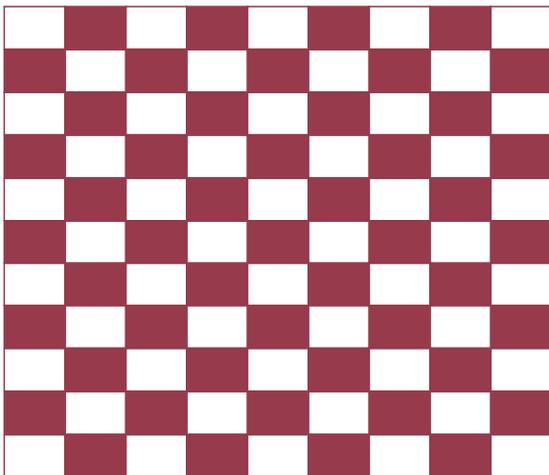
- Colour is applied directly by screens, rollers or blocks. This is called direct printing.
- The fabric is first printed with a mordant and then piece-dyed. This is called dyed printing.
- A chemical is printed on part of the fabric to prevent the dye being absorbed. The fabric is then piece-dyed, and only the non-treated part is printed. This is called resist printing.
- Dyed plain fabric is printed with bleach, which removes colour in the printed areas. This is called discharge printing.

DESIGN APPLICATION

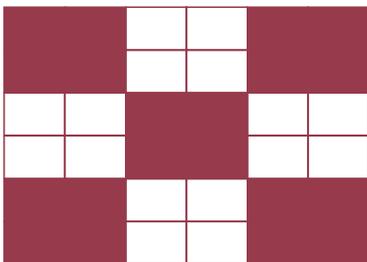
Designs can be introduced into a fabric during the processing of the yarn or fabric, for example weaving, or at the end of the process, for example screen-printing.

(1) Weaving (see fabric construction techniques)

Textile designers draw weave patterns on graph paper. Each square represents the crossing of yarns. If a square is blank, the weft yarn passes over the warp. If a square is filled in, the weft yarn passes under the warp. This is a plain weave.



A variation of plain weave is basket weave.



Basket weave fabrics include sailcloth and hopsack. These fabrics are very strong.

Twill weave produces diagonal lines on the cloth. This method usually produces a strong fabric, such as gabardine, denim, and wool serge.

Satin weave produces long, floating warp threads by passing weft threads at irregular intervals under four or more warp threads. These long strands give satin and silk woven in this way their shiny appearance.

(2) Printing (see colour application)

(3) Batik

In batik prints, wax is used as a resist substance when dye is applied. An important part of the batik process is the preparation of the fabric. It must be thoroughly washed to remove any sizing and treated with oil or some other material to facilitate the dye penetration. The fabric is washed to remove any impurities acquired during the oiling, and then it is stiffened with a special starch to produce a smooth surface on which the design can be drawn.

(4) Embroidery

The application of yarn, thread or floss is a very old method of decorating fabric. Today, machines produce most embroidered fabrics. Embroidery can be applied to fabric of almost any weight.

FABRIC PERFORMANCE TESTING

Tests can be carried out to show various characteristics of a fabric:

- Abrasion-resistance
- Pilling and snagging
- Tearing-resistance
- Tests for finish performance
- Resistance to water
- Flame-resistance
- Recovery from wrinkling
- Colourfastness.

Abrasion resistance test

Stretch a piece of fabric across a block of wood. Rub the fabric vigorously for a few minutes. Note any changes to the fabric.

Water absorption test

Place a sample of wool and a sample of a synthetic fabric in sunlight for five hours. Wash each sample vigorously for ten minutes in hot soapy water. Rinse in cold water. Allow to dry. Place a drop of water on each sample, and compare the time it takes for it to be absorbed. Compare the two samples, noting changes in colour, size, and fibre structure.

EXEMPLAR 16

5.4 THE CLOTHING AND TEXTILE INDUSTRIES

OVERVIEW OF THE STRUCTURE OF THE CLOTHING AND TEXTILE INDUSTRIES IN IRELAND

The retail clothing market in Ireland is worth more than €3 billion and has grown by 59% since 1995. The Republic's clothing market has increased by 75% in that period. The high growth in the clothing market can be explained by the increasing amounts of imports coupled with the British department stores in Ireland continued expansion.

The largest segment of the Irish apparel market is women's wear which accounts for almost 33% of total sales. Within women's wear a number of significant sub-segments exist including knitwear, casual wear, tailoring, teen high fashion, and outsize. Menswear is worth 22% of the market. Footwear accounts for a further 18%, and children's wear, lingerie and accessories follow with 14%, 8%, and 5%, respectively.

Irish clothing has integrated with European and international fashion and therefore it has become increasingly difficult to define an Irish look, beyond the obvious stereotypes of 'Aran jumpers' and 'tweeds'. There are an estimated 350 firms (north and south) involved in the industry; and the majority are small family-owned and managed business. The outlook for clothing retailing in Ireland remains positive. The best prospects are in women's wear, children's wear, and accessories.

FACTORS AFFECTING GROWTH

The clothing industry is influenced by a variety of factors. Recent growth in the Irish market can be largely attributed to the health of the economy, changes in the distribution structure for example the entry of British department stores, and the heightened consumer interest in the clothing sector as a result of media, youth culture and international designer influences.

DESIGNERS WORKING WITH RETAILERS IN IRELAND

Jasper Conran, Lulu Guinness, Philip Tracey, John Rocha, Louise Kennedy, Marc O'Neill, Quin and Donnelly, and Paul Costelloe.

LEADING CLOTHING BRANDS IN IRELAND

Men's wear	Women's wear
John Rocha, Magee, Henry White, Remus Uomo, St Bernard, Tricot Marine.	Lyn Mar, Quin and Donnelly, John Rocha, Paul Costelloe, Ramsay, Michael H, Primark, St Bernard, Principles, Brian Tucker, Libra, A-Wear, Carraig Donn, Regine, Sasha, Michel Ambers, Traffic/Watercolours.

The best-performing brands will deliver on consumers' expectations for fashion, functionality, fabrication and fit. It is estimated that Irish manufacturers control approximately 10-12% of the Irish clothing market. Exports account for around 50% of manufacturer's sales in the Republic of Ireland. In recent years a significantly higher proportion of Irish companies have become involved in sub-contracting their production facilities to low-wage countries such as Turkey, Portugal, the Far East, and Poland. In this way they can compete with Britain, the United States, and other European brands. Marketing and design functions remain in Ireland to control innovation and quality.

Areas of the textile industry	Examples
Fibre production	Creation of new fibres, e.g. microfibres
Yarn production Weaving or knitting	New spinning technology, automation, with a trend towards the application of CAD-CAM
Dyeing and finishing	New finishing techniques, such as Teflon coating
Manufacture of a range of textile products, e.g. technical to fashion	Design, manufacture, production control, quality control
Retailing	

CAREER OPPORTUNITIES IN THE TEXTILE INDUSTRY

- Textile design
- Clothing Design
- Systems analysis
- Marketing
- Quality control
- Health and safety
- Production line operations
- Pattern designer
- Colourist
- Buyer.

Work may take place on the factory production line, at a computer terminal, in a laboratory or a design studio, or travelling as a buyer, and might involve research, development, investigation, and exploration.

Section six

food studies: assessment of practical coursework



6. FOOD STUDIES: ASSESSMENT OF PRACTICAL COURSEWORK

There are five areas of practice.

Assignments will be common to Higher and Ordinary levels.

A list of seven assignments will be sent to schools as follows:

Area A – three assignments

Areas B,C,D and E – one assignment from each area.

Students are required to complete six assignments as follows:

- Area A – two assignments
- Area B – one assignment
- Area C – one assignment
- Area D – one assignment
- One other assignment from either Area A **or** Area E.

Assignments from Areas A, B, C, and D require the completion of *two* separate practicals relevant to each investigation.

Areas of practice	Examples
A Application of nutritional principles B Food preparation and cooking processes	Including special diets and modified diets (i) New skills-based work e.g. yeast, gelatine, filo pastry etc. (ii) Use of specific equipment, e.g. microwave oven, food preparation appliances
C Food technology	For example, producing yoghurt or jam or chutney making, Ice-cream making
D Properties of a food	Dishes illustrating particular food properties for example, coagulation – quiche.
E Comparative analysis	For example, sensory evaluation For example, investigation of different forms of a particular food Lasagne: home-made, chilled, frozen, etc.

Exemplar assignments for each of the areas of practice are shown on p. 106

AREA OF PRACTICE A: APPLICATION OF NUTRITIONAL PRINCIPLES

In this area of practice students are expected to apply their knowledge of nutritional principles to the planning of menus for various age groups. Students are expected to apply their nutritional knowledge to the planning of special diets for people with special needs, adapting common dishes to those needs.

REQUIREMENTS:

- Meeting the nutritional need of various age groups through menu planning
- Planning for the nutritional needs of special diets or modified diets
- Definition and requirements of specific diets
- Suitable dishes or modified dishes
- Understanding of the cooking method and principles involved in making the dish
- Understanding of the essential points in making the dish
- Problems encountered in making the dish and possible solutions
- Preparation, costing, and equipment
- Evaluation and recommendations
- Safety and hygiene points

Diets

Children, adolescents, families, elderly people
 Low Fat/Cholesterol/ CHD (Coronary Heart Disease),
 Low Salt, High Fibre
 Diabetic/Low Sugar, Coeliac, Vegetarian/vegan

Possible dishes/recipes for modification

Fish Pie or Bake, Russian Fish Pie, Fish Chowder, Paella, Kedgeree
 Lasagne, Moussaka, Bolognaise, Chilli Con Carne, Shepherds Pie
 Risotto, Chicken Kiev, Chicken Cordon Bleu, Chicken Pie
 Pork Spareribs, Pork and Apple Bake
 Beef or Vegetable or Chicken Curry and Rice, Tabbouleh, Couscous
 Steak and Kidney Pie, Steak and Mushroom Pie
 Baked Stuffed Liver and Bacon, Liver Stroganoff
 Pizza, Quiche, Salmon En Croute, Vol-au-Vents
 Mushrooms a la Greque, Pasta and Pine Nut Pesto
 Ratatouille, Aubergine with Tomato and Mozzarella, Bean and Tomato Hotpot
 Spinach and Cream Cheese Cannelloni
 Minestrone Soup, Chicken and Sweetcorn Chowder, Vegetable Soup
 Apple Tart, Apple Crumble, Rhubarb and Orange Crumble
 Bread and Butter Pudding, Summer Pudding, Fruit Crème Brulée
 Eves Pudding, Pineapple Upside Down Cake

Reference: Nutrients for the PC, Version 1.04, Hampshire Microtechnology Centre, Farnham, England.

AREA OF PRACTICE B: FOOD PREPARATION AND COOKING PROCESSES

The main function of this area of practice is to encourage students to acquire new skills and show progression from Junior Certificate standard. It is also intended to encourage them to make use of and evaluate modern items of equipment where these improve the efficiency of the task in hand. They would also be expected to have a working knowledge of the chosen items of equipment including selection, use, care, and safety factors. They should be able to make recommendations regarding the efficiency of the equipment for specific tasks.

REQUIREMENTS FOR NEW SKILLS OR EQUIPMENT:

(EACH POINT MAY NOT BE RELEVANT TO BOTH):

- Progression from Junior Certificate standard of work
- Suitable dish or dishes
- Brief description of the item of equipment, with regard to selection, use, working principle, care, and safety
- Suitable dishes illustrating improved efficiency using this equipment
- Understanding of the essentials in making a dish using the equipment
- Understanding of the cooking method and principles involved in making the dish
- Problems encountered in making the dish and proposed solutions
- Preparation, costing, and equipment
- Evaluation and recommendations
- Safety and hygiene points

<p>Possible topics</p> <ul style="list-style-type: none"> • Yeast • Gelatine • Rough puff pastry (incl. making) • Filo pastry (use only) • Puff pastry (use only) • Choux pastry • Soufflé-making • Roasting 	<p>Possible dishes</p> <p>Yeast Loaf, Pizza, Chelsea Buns Savoury Breads Cold Soufflé, Mince Pies Apple Strudel, Savoury Filo Parcels Russian Fish Pie, Steak and Kidney Pie Cream Slices, Cream Horns</p> <p>Chocolate Eclairs, Choux Ring Cheese Soufflé, Chocolate Soufflé Roast Chicken, Roast Root Vegetables</p>
<p>Suggested Equipment</p> <ul style="list-style-type: none"> • Microwave oven • Wok • Liquidizer or blender • Food processor • Electric mixer • Deep fryer • Pressure cooker • Electric steamer • Microwave steamer • Contact grill 	<p>Possible Dishes</p> <p>Chocolate Pudding Stir fry Cheese Cake, Soups Milk Shakes Dough, Pastry Soup, Coleslaw Maderia Cake Sponge, Swiss roll Fish in Batter, Spring Rolls Scotch Eggs, Chips, Fruit Fritters Beef Stew, Bacon, Cornbeef Rice, Vegetables Steamed Pudding, Custard</p> <p>Vegetables, Rice Grilled Meats, Fish, Vegetables</p>

AREA OF PRACTICE C: FOOD TECHNOLOGY

In this area of practice students are required to study simple food-processing procedures that can be carried out in the home as well as commercially. They should compare and evaluate home-made products and commercial products using comparative testing. They should also study suitable packaging for products.

REQUIREMENTS:

- Brief description of the method of processing or preservation
- Suitable foods for the chosen method
- Basic instructions for carrying out the method, including the underlying principles
- Understanding of the essential points in carrying out the process
- Comparative study of home-made and commercial
- Study of packaging where relevant
- Problems encountered in making the dish and possible solutions
- Preparation, costing, and equipment
- Evaluation and recommendations
- Safety and hygiene.

Procedures and suggested activities

Yoghurt-making

Jam or marmalade-making

Chutney-making or sauces and relishes

Pickling: cauliflower or beetroot or cucumber

Drying herbs or apple rings

Ice-cream

Mincemeat

Biscuits

Brown scones

Freezing

Soft cheese

**AREA OF PRACTICE D:
DISHES ILLUSTRATING THE
PROPERTIES OF A FOOD**

In this area of practice students are expected to understand the underlying properties of foods that enables its use in particular dishes. They should also have an understanding of the scientific principles as applied in the making of specified dishes.

REQUIREMENTS:

- Definition of a particular property
- Suitable dishes illustrating that property
- Understanding of cooking method and the scientific principle involved
- Understanding of how the principle is applied in making a dish
- Understanding of the essential points in making the dish
- Problems encountered in making the dish and possible solutions
- Preparation, costing, and equipment
- Evaluation and recommendations
- Safety and hygiene points.

Properties	Suggested dishes
<ul style="list-style-type: none"> • Gelatinisation 	White Sauce: Russian Fish Pie Cheese Soufflé
<ul style="list-style-type: none"> • Foaming 	Meringue: Lemon Meringue Pie
<ul style="list-style-type: none"> • Caramelisation 	Caramel: Banoffi, Caramel Squares, Caramel Custard, Caramelised Onions, Caramelised Bananas
<ul style="list-style-type: none"> • Coagulation 	Eggs: Quiche, Lemon Meringue Pie Spanish Omelette, Pear and Almond Tart Bread and Butter Pudding
<ul style="list-style-type: none"> • Gelling 	Gelatine: Fruit Flan, Cheesecake, Soufflé Pectin: Jam Making
<ul style="list-style-type: none"> • Emulsification 	Mayonnaise: Egg Mayonnaise Eggs: Meat Loaf, Hamburgers, Stuffing
<ul style="list-style-type: none"> • Marinating 	Tandoori Chicken, Beef Stroganoff

Reference: Brian A. Fox and Allan G. Cameron. *Food Science, Nutrition and Health* (sixth edition), London: Edward Arnold, 1995.

AREA OF PRACTICE E: COMPARATIVE ANALYSIS INCLUDING SENSORY EVALUATION

The aim of this area of practice is to help students to critically evaluate dishes and to develop some of the skills and language of sensory analysis. They should be encouraged to familiarise themselves with *triangle tests, rating tests, and ranking tests*. The presentation of results should include *histograms, pie charts and star diagrams* where appropriate.

REQUIREMENTS:

- Description of the intended testing technique, its aims and possible outcomes
- Dishes appropriate to the testing or evaluation techniques
- Simple description of the testing process used, including essential equipment
- Understanding of the essential points in making a dish or dishes
- Problems encountered in making the dish and possible solutions
- Preparation, costing, and equipment
- Evaluation and recommendations
- Safety and hygiene points.

Possible tasks

1. Group project on *product development*, including concepts such as *design criteria and quality assurance*
e.g. a range of simple sandwiches for the school canteen
a range of biscuits for a cake sale
2. Comparative testing of recipes for the same dish
e.g. a vegetarian version of a traditional dish
recipes for Lasagne
Brown Bread

3. *Recipe development*

e.g. savoury breads
ice cream

4. *Comparative testing* of various versions of the same product

e.g. home-made, chilled, frozen
home-made, chilled, canned

Reference: Jenny Ridgwell. *Tasting and Testing-skills in Technology*. London: Ridgwell Press, 1993.

www.ridgwellpress.co.uk

SAMPLE ASSIGNMENTS FOR AREAS OF PRACTICE

Area of practice A Application of Nutritional Principles

Special requirements (dietary, economical and practical) should be considered when planning meals for the elderly. Identify and elaborate on some of these considerations under the above three headings.

Bearing in mind these requirements, investigate a range of main courses suitable for lunch for two elderly people. Prepare, cook and serve *two of the main courses* you have identified.

Evaluate the assignment in terms of (a) implementation and (b) the specific requirements of the assignment.

Area of practice B Food Preparation and Cooking Processes

Microwave cookers are very useful where family members have a busy schedule combining running a home and a career.

Research the types and the uses of modern microwave cookers.

Investigate a number of dishes and/or foods suitable for cooking, using a microwave. Indicate how the principle of microwave cooking applies in each case.

Prepare, cook and serve *two dishes or foods* that you have investigated.

Evaluate the assignment in terms of (a) implementation (b) ease of use and convenience and (c) palatability of the food.

Area of practice C Food Technology

Pickling preserves fruit and vegetables by increasing acidity.

Investigate the different types of home pickling and list a number of fruits and / or vegetables suitable for each type.

In relation to pickling describe the principles involved. Identify some of the possible problems that may arise and suggest possible solutions.

Prepare, and pot *two varieties of pickle*.

Evaluate the assignment in terms of (a) implementation (b) versatility and uses, and (c) practicability.

Area of practice D Properties of Food

The coagulation of eggs has a wide variety of culinary uses.

Define the property coagulation. Investigate its application in the making of sweet and savoury dishes.

Select *two dishes* and explain how the principle of coagulation is used when preparing and cooking each dish. Prepare, cook and serve the selected dishes.

Evaluate the assignment in terms of (a) implementation (b) success in applying the cooking principles.

Area of practice E Comparative Analysis

The variety and quality of commercially prepared soups are constantly being extended and improved.

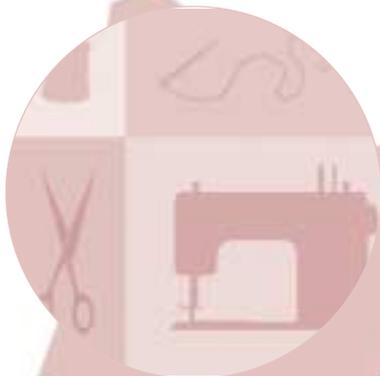
Investigate and identify three different types of convenience soups available in your local supermarket.

Prepare *two types of convenience soup* (soups with the same flavour).

Using a triangle test, compare the soup in terms of texture and saltiness. Carry out a preference test among the students in your class to determine the preferred option.

Evaluate the assignment in terms of (a) implementation and (b) the overall effectiveness of the tests carried out.

Section seven assessment of the practical component of the textiles, fashion, and design elective



7. ASSESSMENT OF THE PRACTICAL COMPONENT OF THE TEXTILES, FASHION AND DESIGN ELECTIVE

Candidates will be required to produce design sketches for an outfit based on a theme and to construct one garment from this outfit. They will be required to follow a design process and to present evidence of work carried out in a support folder. Pattern drafting is not expected. Commercial patterns may be used. A selection of traditional and novel designs will be included.

An assignment will be sent out to schools annually specifying the process or processes to be used and giving details of the theme. This will be sent out at the same time as the assignments for the assessment of practical work in the food studies area. The assignment and theme will be common to Higher and Ordinary levels.

POSSIBLE THEMES

A sporting event
Outdoor pursuits
Country life
Special occasions
Environmental awareness
The ocean.

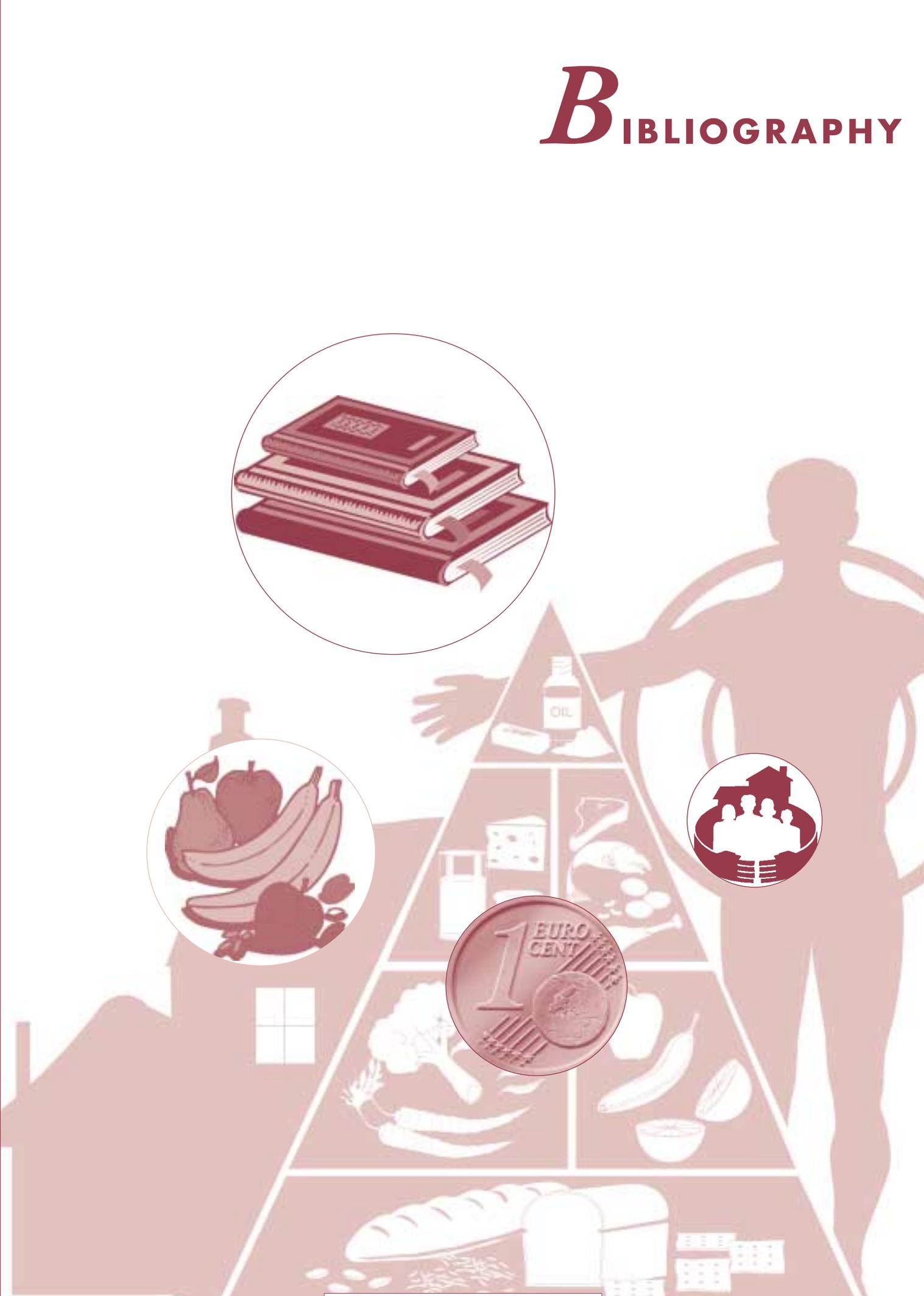
SAMPLE TEXTILE ASSIGNMENT

Using 'The Ocean' as a theme, design an outfit for yourself. This may be a traditional outfit or one suitable for a fancy dress party. Make the outfit, or one item of clothing from the outfit, using suitable textiles. The completed item must include two of the following processes:

- (a) buttons and buttonholes
- (b) a sleeve
- (c) decorative feature that shows the use of appliqué.

A commercial pattern may be used. The item of clothing must be supported by a design folder.

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USEFUL ADDRESSES

GENERAL

Combat Poverty Agency
8 Charlemont Street
Dublin 2
Tel: 01-4783355
Fax 01-4783731

Health Promotion Unit
Department of Health and Children
Hawkins House
Hawkins Street
Dublin 2
Tel: 01-6714711

Office of the Commission of the
European Communities
39 Molesworth Street
Dublin 2
Tel: 01-6712244

FOOD STUDIES

Department of Agriculture and Food
Kildare Street
Dublin 2
Tel: 01-6789011

Food Safety Authority
of Ireland (FSAI)
Block E
Abbey Court
Lower Abbey Street
Dublin 1
Tel: 01-8171300
Fax 01-8171301
Help line 1800336677
e-mail: info@fsai.ie

Sea Fish Industry Authority
Education Resources
18 Logie Mill
Logie Green Road
Edinburgh EH7 4HG
Scotland

RESOURCE MANAGEMENT AND CONSUMER STUDIES

Advertising Standards
Authority of Ireland
IPC House
35-39 Shelbourne Road
Dublin 4
Tel: 01-6608766
Fax: 01-6608113

Consumer Advice Shop
13A Upper O'Connell Street
Dublin 1
Tel: 01-8090600
Fax: 01-6616263

Consumers' Association of Ireland
45 Upper Mount Street
Dublin 2
Tel: 01-6612466

Irish Banks Information Service
Nassau House
Nassau Street
Dublin 2
Tel: 01-671 5299
Fax: 01-6796680

Irish League of Credit Unions
Castleside Drive
Dublin 14
Tel: 01-4908911

Money Advice and Budgetary Support,
Service Co-ordinators
101-104 Marlborough Street
Dublin 1
Tel: 01-7043084

Office of the Director
of Consumer Affairs
4-5 Harcourt Road
Dublin 2
Tel: 01-4025500
Fax: 01-4025501
e-mail: ecic@indigo.ie

Youth Information Resource Unit
Hawkins House
Hawkins Street
Dublin 2
Tel: 01-28788595

SOCIAL STUDIES

Alcoholics Anonymous
109 South Circular Road
Dublin 8
Tel: 01- 4538998

Department of Health and Children
Hawkins House
Hawkins Street
Dublin 2
Tel: 01- 6714711

USEFUL ADDRESSES

Department of Social Welfare and
Family Law Reform
Áras Mhic Dhiarmada
Store Street
Dublin 1
Tel: 01-8748444

FÁS
27 Upper Baggot Street
Dublin 4
Tel: 01-6685777

Federation of Services for Unmarried
Parents and their Children
36 Upper Rathmines Road
Dublin 6
Tel: 01- 4964155

Free Legal Advice Centres
49 South William Street
Dublin 2
Tel: 01-6794239

Gingerbread
29 Dame Street
Dublin 2
Tel: 01-6710291

Health Promotion Unit
Department of Health and Children
Hawkins House
Hawkins Street
Dublin 2
Tel: 01-6714711

Narcotics Anonymous
13 Talbot Street
Dublin 1
Tel: 01-8300944

National Rehabilitation Board
24-25 Clyde Road
Dublin 4
Tel: 01-6684181

Legal Aid Board
Shelbourne House
Shelbourne Road
Dublin 2
Tel: 01-6615811

Treshold
Church Street
Dublin 7
Tel: 01-6726311

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Title	Date of production	Details of producers and availability
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<i>Some Catch</i> - video and teachers notes		Sea Fish Industry Authority Education Resources 18 Logie Mill Logie Green Road Edinburgh EH7 4HG Scotland

COMPUTER PROGRAMS

Title	Date of production	Details of producers and availability
<i>The Complete Chef</i> (CD-ROM for Windows). Includes recipes, food facts, utensils, cooking terms, herbs, spices, etc. Also has information on cooking techniques.	1996	Softkey Multimedia Inc. Available from software suppliers
<i>Nutrients for the PC</i> . Helps students investigate the nutritional value of foods. Data-base of more than 800 foods. Compares food entities with DRVs.	2000	Hampshire Country House Hampshire Microtechnology Centre The Parkway 94–96 Wickham Road Farnham Hampshire P0167 England Tel: 01329 519111 Fax: 01239 31617 e-mail: hmte@hmte.hants.ob

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British Nutrition Foundation
<http://www.nutrition.org.uk>

Food Safety Authority of Ireland (FSAI)
www.fsai.ie

Diabetes
www.diabetesireland.ie

European Food Information Council
www.eufic.org

Food Product Design
www.foodproductdesign.com

Food: recipes, interviews with celebrity chefs
www.epicurious.com

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www.foodstandards.gov.uk/index.htm

Food technology
www.foodtech.org.uk (excellent website)

Hygiene Mark: National Hygiene Programme
www.hygienemark.com

Institute of European Food Studies
www.iefs.org/

Irish Nutrition and Dietetic Institute
<http://indi.ie.eu.org>

Irish Universities Nutrition Alliance
www.iuna.net

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www.outofthefryingpan.com

Ridgwell Press
www.ridgwellpress.co.uk—excellent links to food and textiles

Teagasc: Agriculture and Food Development Authority.
www.teagasc.ie

Vegetarian recipes
www.veganvillage.co.uk/recipes

NUIC: Food Communications Information Service
www.ucc.ie/fcis/—excellent website and links

RESOURCE MANAGEMENT AND CONSUMER STUDIES

Consumers' Association of Ireland
www.consumerassociation.ie/

Consumers International
www.consumersinternational.org

Department of Trade, Enterprise and Employment
www.entemp.ie

European Consumer Centre
www.ecic.ie

WEB SITES

Irish Banks Information Service
www.ibf.ie

Irish Banks Information Service
<http://www.iol.ie/ibis>

Money Advice and Budgeting
Service (Ireland)
www.mabs.ie/

Office of the Director of Consumer
Affairs
www.odca.ie/

Office of the Ombudsman
www.irlgov.ie/ombudsman/

On-line Banking
www.aib.ie

Tesco, Ireland
www.tesco.ie

On-line shopping: ‘
From Mouse to House’

**HOME DESIGN AND
MANAGEMENT**

Irish Architecture
www.archeire.com

Irish Council for Social Housing:
Tel: 01-6618334
E-mail: info@icsh.ie
www.icsh.ie

Kitchen Designs
www.mwf.com

SOCIAL STUDIES

Central Statistics Office
www.cso.ie/

Combat Poverty Agency
Bridgewater Centre
Cunningham Road
Dublin 8
www.cpa.ie
e-mail: info@cpa.ie

Department of Social, Community
Family Affairs
www.dscfa.ie

Social Science Information Gateway
www.sosig.ac.uk/sociology

United Nations Research Institute for
Social Development
www.unrisd.org/

MISCELLANEOUS

NCCA
www.ncca.ie

This site helps teachers create
crosswords and word mazes on topics
of their choice; it also has clip art on
food. Click on discovery school.
www.discovery.com

ATHE
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Scoilnet
Network for Irish schools
www.scoilnet.ie



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