

# **Home Economics Syllabus**

## **Lower Secondary**

### **Special / Express / Normal (Academic/Technical) Courses**

**CURRICULUM PLANNING AND DEVELOPMENT DIVISION  
MINISTRY OF EDUCATION  
SINGAPORE**

**© MINISTRY OF EDUCATION  
ALL RIGHTS RESERVED  
YEAR OF IMPLEMENTATION FROM 2002**

# CONTENTS

1. AIMS .....	2
2. INTRODUCTION.....	3
3. RATIONALE .....	3
4. ORGANISATION OF THE SYLLABUS .....	4
5. CURRICULUM TIME .....	5
6. TEACHING APPROACHES .....	6
7. PLANNING SCHEMES OF WORK .....	7
8. SYLLABUS CONTENT .....	8
Food and Nutrition .....	8
Textiles and Clothing.....	13
Consumer Education .....	16
9. ASSESSMENT GUIDELINES.....	19
10. SUGGESTED RESOURCES .....	23

## **MISSION STATEMENT**

To develop pupils' knowledge, skills and attitudes  
in Home Economics for the well-being  
of self, family and the community.

## **1. AIMS**

The syllabus aims to enable pupils to apply the basic principles of

- nutrition and food management for healthy living;
- textiles and clothing designs and functions for daily living; and
- consumer education for making informed choices.

The aims set out above describe the learning outcomes of this syllabus. Some of the learning outcomes are reflected in the assessment objectives, whilst others are not because they cannot be readily translated into measurable objectives.

## **2. INTRODUCTION**

When Home Economics was first introduced into the formal curriculum, it was only taught to girls. In 1994, the Home Economics syllabus was revised to meet the needs of both boys and girls. Since then, Home Economics has been a compulsory subject for all lower secondary boys and girls. The syllabus is now further revised to incorporate new knowledge in Home Economics education and reflect recent trends in education.

## **3. RATIONALE**

Singapore must constantly keep pace with a rapidly changing world. These changing demands require our pupils to compete and contribute in a climate of change as well as to make critical decisions that affect their personal, family and social life. Hence, the syllabus is revised to provide pupils with the knowledge and skills to help them think critically and make decisions for themselves and their family.

The syllabus provides the opportunity for teachers to deliver a course of study which makes clear the inter-relationships between *Food & Nutrition*, *Textiles & Clothing* and *Consumer Education* both in theory and practice. This will allow pupils to examine issues that affect individuals, their families, and the community. The syllabus achieves this by providing opportunities for pupils to develop skills associated with:

- communication;
- creativity;
- decision-making;
- investigation;
- management;
- measurement;
- personal and social interaction;
- problem-solving;
- psycho-motor activity;
- logical and critical thinking.

## 4. ORGANISATION OF THE SYLLABUS

The core areas of the syllabus are:

- **Food and Nutrition**

This area focuses on the basic principles of nutrition and food management. It emphasises the importance of a balanced diet based on the nutritional needs of the individual. Pupils will understand and apply nutritional tools such as nutritional guidelines and the Healthy Diet Pyramid when planning healthy meals. Food management provides pupils with a foundation in food preparation through the study of the basic principles of food science and culinary techniques. Practical applications will be carried out through investigative and food-based laboratory experiences.

- **Textiles and Clothing**

This area focuses on the basic principles of textile design and function. Through the study of the properties of textiles, pupils will acquire an understanding of the uses of textiles in everyday life. The aspect on clothing provides

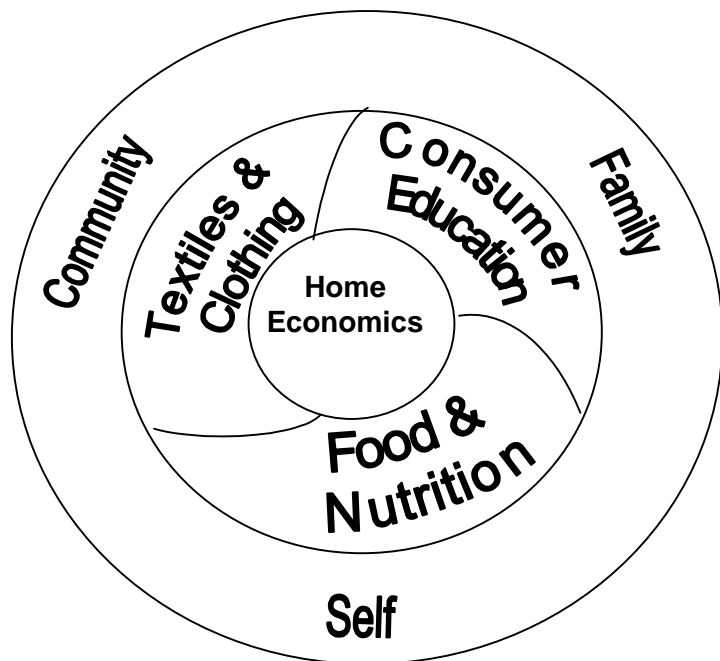
pupils with a basic knowledge of the factors involved in choosing and maintaining clothes. Practical applications for this area will be carried out through the design and production of textile items.

- **Consumer Education**

This area focuses on consumer rights and responsibilities, money management and informed decision-making. It seeks to enable pupils to become discerning consumers of goods and services in society. Practical applications will be carried out through the decision-making processes employed in activities such as comparative shopping and money management.

Together, the three core areas form the framework for the syllabus. The conceptual framework defines Home Economics as central in providing the content knowledge, skills and attitudes to enable them to extend the concept of well-being

through Home Economics beyond self to family and community.



**Conceptual Framework**

## 5. CURRICULUM TIME

The recommended curriculum time is given in the table below.

Courses	Suggested Time
Special, Express, Normal (Academic)	1.5 x 40 min. per week
Normal Technical	2 x 40 min. per week

Schools and teachers teaching Home Economics can exercise their discretion when planning the timetable. They can liaise with the Design & Technology teachers to make suitable arrangements. The following are possible alternatives:

Home Economics is taught:

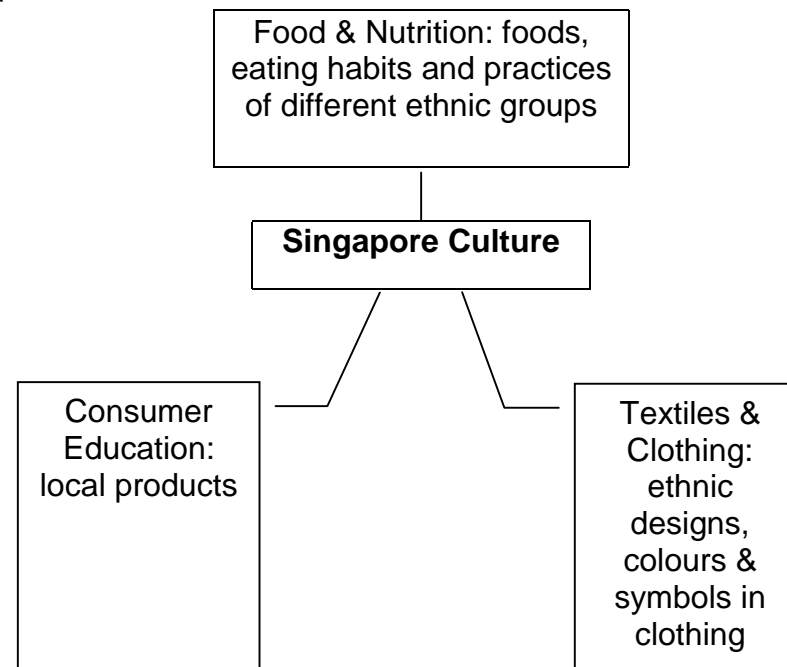
- in the first semester and Design & Technology/Technical Studies in the second or vice-versa; or
- in either the first or second terms of each semester; or
- on alternate weeks with Design & Technology/Technical Studies.

## 6. TEACHING APPROACHES

The content of the syllabus is to be taught through exploration, investigation and the production of items. Teaching should focus on problem-solving or tasks and activities. This will provide opportunities for pupils to relate and apply the knowledge gained to real-life situations. It will also show the relevance of the subject in everyday life. Evaluation must be an integral part of this delivery. Opportunities to make judgements will enable pupils to improve on their work. One way in which this can be accomplished is by adopting a thematic approach in the planning of the instructional programme.

Modular lessons can be planned using different themes. Related topics can be introduced around a central theme.

For example:



## **7. PLANNING SCHEMES OF WORK**

The syllabus content is intended for Secondary 1 and 2. Teachers are encouraged to use their professional judgement in deciding on the topics to be covered each year. Teachers should adjust the depth and breadth of the topics in their lessons to meet the needs and abilities of their pupils. Learning outcomes and objectives should be clearly spelt out. These can be found in the syllabus content. Schemes of work should incorporate all of the following:

- National education
- Information technology
- Thinking skills
- Coursework skills, including practical skills
- Basic experimental methodology

Units of work could be developed using the thematic approach. The time-frame for each unit can range from 2 - 5 weeks. This will enable teachers to approach the subject in a more integrated manner to make learning meaningful. A scheme of work can be composed of several units of work.

## 8. SYLLABUS CONTENT

CONTENT	LEARNING OUTCOMES
<b>1. FOOD &amp; NUTRITION</b>	Pupils should be able to:
<p><b>1.1 Food Nutrients</b></p> <ul style="list-style-type: none"> <li>• Protein</li> <li>• Carbohydrate</li> <li>• Fat</li> <li>• Vitamins               <ul style="list-style-type: none"> <li>- A, B group, C, D, E</li> </ul> </li> <li>• Mineral Salts               <ul style="list-style-type: none"> <li>- Calcium</li> <li>- Sodium</li> <li>- Iron</li> </ul> </li> <li>• Water</li> <li>• Dietary Fibre</li> </ul>	<ul style="list-style-type: none"> <li>• explain why the body needs food</li> <li>• list the 6 main nutrients: protein, carbohydrate, fat, vitamins (A, B group, C, D, E), mineral salts (calcium, sodium, iron) and water</li> <li>• identify and classify the main sources of the 6 main nutrients</li> <li>• explain the functions of the 6 main nutrients</li> <li>• define dietary fibre</li> <li>• explain the importance of dietary fibre in the diet</li> <li>• identify the main sources of dietary fibre</li> </ul>

CONTENT	LEARNING OUTCOMES
<p><b>1.2 Diet-related Diseases</b></p>	<ul style="list-style-type: none"> <li>• describe the effects of excessive and deficient consumption of the various nutrients and dietary fibre on health, focusing on: <ul style="list-style-type: none"> <li>- obesity, diabetes, coronary heart diseases, high blood pressure, cancers (excessive consumption)</li> <li>- anaemia, osteoporosis, constipation, cancers (deficient consumption)</li> </ul> </li> </ul>
<p><b>1.3 Meal Planning</b></p> <ul style="list-style-type: none"> <li>• Balanced diet</li> <li>• Nutritional Tools <ul style="list-style-type: none"> <li>- nutritive values</li> <li>- energy values</li> <li>- energy balance</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• define a balanced diet in terms of balance, moderation and variety</li> <li>• explain the functions of different nutritional tools: <ul style="list-style-type: none"> <li>- Singapore National Dietary Guidelines</li> <li>- Singapore Healthy Diet Pyramid</li> <li>- Recommended Daily Dietary Allowances (RDA)</li> <li>- Food Composition Tables</li> </ul> </li> <li>• calculate and compare the energy and main nutritive values of different foods using nutritional tools</li> <li>• analyse the energy and main nutritive values of different dishes in a meal using nutritional tools</li> <li>• explain the balance between energy intake and energy output to maintain body weight</li> </ul>

CONTENT	LEARNING OUTCOMES
<ul style="list-style-type: none"> <li>• General guidelines for meal planning</li> </ul>	<ul style="list-style-type: none"> <li>• list the guidelines for meal planning</li> <li>• explain the factors to consider when planning meals</li> <li>• explain the factors to consider when planning meals for children, teenagers and the elderly</li> <li>• plan and modify meals using nutritional tools</li> <li>• apply guidelines for meal planning when eating out</li> </ul>
<p><b>1.4 Food Choice</b></p> <ul style="list-style-type: none"> <li>• Fresh, processed/ convenience foods</li> </ul>	<ul style="list-style-type: none"> <li>• classify fresh, processed/convenience food</li> <li>• suggest the reasons for using fresh, processed/convenience foods</li> <li>• discuss the points to consider when selecting fresh, processed/convenience foods</li> <li>• discuss the points to consider when storing fresh, processed/convenience foods</li> <li>• compare the advantages and disadvantages of fresh, processed/convenience foods</li> <li>• plan nutritious dishes/meals by combining fresh and processed/convenience foods</li> <li>• apply nutrition information from food labels in meal planning</li> </ul>

CONTENT	LEARNING OUTCOMES
<p><b>1.5 Food Additives</b></p>	<ul style="list-style-type: none"> <li>• define additives</li> <li>• classify some common additives according to their functions (e.g. flavourings, colourings, preservatives)</li> </ul>
<p><b>1.6 Food Spoilage</b></p> <ul style="list-style-type: none"> <li>• During preparation</li> <li>• During storage</li> </ul>	<ul style="list-style-type: none"> <li>• define food spoilage</li> <li>• identify the causes of food spoilage</li> <li>• explain how bacteria is spread through careless handling and preparation</li> <li>• identify and apply safe practices and hygienic measures when handling food</li> </ul>
<p><b>1.7 Food Management</b></p> <ul style="list-style-type: none"> <li>• Reasons for cooking food</li> <li>• Methods of cooking</li> </ul>	<ul style="list-style-type: none"> <li>• explain why food is to be cooked</li> <li>• identify the different methods of cooking including boiling, steaming, stir-frying, grilling, baking, microwaving</li> <li>• compare the advantages and disadvantages of the different methods of cooking</li> </ul>

CONTENT	LEARNING OUTCOMES
<ul style="list-style-type: none"> <li>• Effects of different methods of cooking on food</li>   <li>• Evaluation of food               <ul style="list-style-type: none"> <li>- taste, texture, appearance</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• investigate and describe the effects of heat on the flavour, colour, and texture of foods</li> <li>• suggest ways to:               <ul style="list-style-type: none"> <li>- minimise loss of nutrients, time and fuel</li> <li>- reduce waste</li> </ul> </li>   <li>• apply healthier methods of food preparation</li> <li>• modify/ adapt / create recipes to meet different nutritional requirements</li> <li>• evaluate food cooked using different methods e.g. taste tests</li> </ul>
<p><b>1.8 Food and Culture</b></p>	<ul style="list-style-type: none"> <li>• identify some dishes which have a Singaporean identity (e.g. roti john, toast and kaya)</li> <li>• describe and differentiate the food practices of different ethnic groups</li> </ul>

CONTENT	LEARNING OUTCOMES
<b>2. TEXTILES AND CLOTHING</b>	
<p><b>2.1 Textile Applications</b></p> <ul style="list-style-type: none"> <li>• Uses of textiles</li>   <li>- properties</li>   <li>- application</li> </ul>	<ul style="list-style-type: none"> <li>• classify and categorise the different uses of textiles <ul style="list-style-type: none"> <li>- clothes e.g. for everyday wear, sports, protection</li> <li>- home e.g. for upholstery, bed linen, kitchen linen</li> <li>- industry e.g. used in conveyor belts, bullet-proof vests, fire-proof clothes, screens</li> </ul> </li>   <li>• explain the importance of the following properties in relation to the above uses: <ul style="list-style-type: none"> <li>- comfort</li> <li>- durability</li> <li>- shape retention</li> <li>- transmission of heat and water (e.g. water-proof, heat-proof, absorbency)</li> </ul> </li>   <li>• design and create items for self and/or the home using suitable textiles</li> </ul>

CONTENT	LEARNING OUTCOMES
<p><b>2.2 Clothes and You</b></p> <ul style="list-style-type: none"> <li>• Choice of Clothes <ul style="list-style-type: none"> <li>- fashion trends</li> <li>- design &amp; style lines</li> <li>- personal image</li> <li>- functions</li> <li>- purpose / occasion</li> </ul> </li>   <li>• Care of Clothing <ul style="list-style-type: none"> <li>- care labels</li> <li>- stain removal</li> <li>- simple garment repairs</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• evaluate their choice of clothes based on : <ul style="list-style-type: none"> <li>- current fashion trends</li> <li>- designs and style lines</li> <li>- personal image</li> <li>- functionality</li> <li>- purpose / occasion</li> </ul> </li>   <li>• demonstrate their understanding of clothing care by: <ul style="list-style-type: none"> <li>- interpreting care labels e.g. washing, ironing and dry cleaning</li> <li>- explaining how common stains e.g. from food and drinks, blood, oil, paint, ink can be removed by commercial or traditional methods</li> <li>- performing simple maintenance procedures e.g. mending hems, attaching buttons</li> </ul> </li> </ul>

CONTENT	LEARNING OUTCOMES
<p><b>2.3 Clothes and the Singapore Identity</b></p> <ul style="list-style-type: none"> <li>• Ethnic Clothes <ul style="list-style-type: none"> <li>- factors affecting design</li> </ul> </li>   <li>• Singapore Dress</li> </ul>	<ul style="list-style-type: none"> <li>• discuss the different ethnic styles of clothing representing the four races in Singapore and the factors affecting their design in terms of culture, tradition, religion</li>   <li>• discuss the significance of the symbols used in the Singapore dress</li> </ul>

CONTENT	LEARNING OUTCOMES
<b>3. CONSUMER EDUCATION</b>	
<b>3.1 Consumer Awareness</b> <ul style="list-style-type: none"> <li>• What is a consumer</li> <li>• Providers of goods and services in society</li> <li>• Consumer rights and responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>• describe a consumer with reference to goods and services</li> <li>• identify some providers of goods and services in society</li> <li>• discuss the rights and responsibilities of a consumer</li> <li>• identify a consumer problem</li> <li>• discuss a course of action for the consumer when seeking redress</li> </ul>
<b>3.2 Wise Shopping And Buying</b> <ul style="list-style-type: none"> <li>• Budgeting <ul style="list-style-type: none"> <li>- needs and wants</li> <li>- money management</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• distinguish between needs and wants</li> <li>• identify what determines our needs and wants</li> <li>• identify some of the ways needs and wants can be satisfied</li> <li>• apply money management skills in real situations</li> <li>• list the various methods of payment including cash, cash cards, cheques, electronic transfers, hire purchase, installments</li> </ul>

CONTENT	LEARNING OUTCOMES
<ul style="list-style-type: none"> <li>- methods of payment</li> <li>• Shopping Smart               <ul style="list-style-type: none"> <li>- getting information                   <ul style="list-style-type: none"> <li>▫ advertisements</li> <li>▫ comparative shopping</li> </ul> </li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• differentiate between the various methods of payment</li> <li>• explain the advantages and disadvantages of the various methods of payment</li> <li>• identify ways of getting information about products</li> <li>• identify the different forms of advertising using print/electronic media, packaging, labelling, stickers, clothing tags</li> <li>• discuss the advantages and disadvantages of advertising</li> <li>• identify aspects of an advertisement that can influence the consumer to buy</li> <li>• discuss the effectiveness of different advertisements</li> <li>• verify advertisement claims</li> <li>• compare products in terms of quality, quantity, price, packaging or features</li> <li>• apply the decision-making process</li> <li>• discuss the advantages and disadvantages of catalogue shopping</li> <li>• discuss the advantages and disadvantages of on-line shopping</li> </ul>

CONTENT	LEARNING OUTCOMES
<ul style="list-style-type: none"> <li>- Using information               <ul style="list-style-type: none"> <li>▫ labelling</li> </ul> </li>   <li>• Choosing the Best Buy               <ul style="list-style-type: none"> <li>- Factors affecting choice</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• identify the various types of labels including data, award, clothing/care and food labels</li> <li>• obtain relevant information from labels</li> <li>• interpret labels of products               <ul style="list-style-type: none"> <li>- food and nutrition labels</li> <li>- clothing / care labels</li> <li>- data labels (e.g. nutrition information, specifications etc)</li> <li>- award labels (e.g. healthy choice, Productivity Standards Board (PSB) certified, International Standards Organisation (ISO) certification etc.)</li> </ul> </li>   <li>• discuss some factors affecting choice of products e.g. food, clothes and accessories, pagers, mobile phones, CDs, books etc.</li> </ul>

## 9. ASSESSMENT GUIDELINES

### ASSESSMENT OBJECTIVES

The assessment objectives indicate the skills and abilities which will be assessed. Pupils will be assessed on their ability to:

- apply their knowledge and understanding of the three areas namely *Food & Nutrition, Textiles & Clothing* and *Consumer Education*;
- plan and carry out activities and tasks which will require them to:
  - (i) identify and define a task from a specified context;
  - (ii) gather information using a range of sources;
  - (iii) generate and prioritise ideas;
  - (iv) plan a time-line;
  - (v) take a course of action;
  - (vi) evaluate the application of the process and outcomes.

### MODES OF ASSESSMENT

The following modes of assessment could be used to assess the main objectives of this syllabus:

- theory tests
- assignments
- practical tests/work
- mini investigations/experiments

### TYPES OF ASSESSMENT

There are 2 types of assessment:

- Continual Assessment (CA)
- Semestral Assessment (SA)

#### **Continual Assessment (CA)**

CA is based on pupils' daily work. The recommended modes of assessment would be theory tests, practical tests/work and/or mini investigations/experiments.

### Semestral Assessment (SA)

SA refers to the mid-year and end-of-year examinations. The structure of the SA consists of two components:

Component	Weighting	Duration
Written Paper	30%-50%	1 hour
Coursework	50%-70%	Throughout the course

### Weighting for Continual Assessment (CA) and Semestral Assessment (SA)

The table below shows the recommended weighting for CA and SA:

Semester	Weighting	
	CA	SA
I	15% (20%)	25% (20%)
II	15% (20% -30%)	45% (30%-40%)
<b>Total</b>	100%	

(Figures in brackets are for Normal (Technical) course)

### STRUCTURE OF ASSESSMENT

The three courses (S/E, NA, NT) are similar in examination format, content and process skills. However the type of questions/tasks set should be tailored to suit the ability of the pupils being examined. The questions/tasks set should require pupils to apply and integrate their knowledge of all three areas of the subject.

### DIFFERENTIATION

Differentiation can be achieved by the following means:

#### Written paper

Section A is common for all three courses. Sections B and C should be differentiated. Particular care should be taken to ensure that the language used in phrasing the questions is suitable for the ability of the pupils in the three courses.

### **Format of Written Paper**

The written paper should be a 1 hour paper consisting of 3 sections. The time allocated to the papers should include reading time.

<b>SECTION</b>	<b>WEIGHTING</b>	<b>ITEM-TYPE</b>	<b>REMARKS</b>
A	20%	<ul style="list-style-type: none"><li>- Objective type</li><li>- Matching</li><li>- Fill in the blanks</li><li>- Ordering questions</li><li>- Labeling/Identifying diagrams</li></ul>	Questions for this section can be common for the different courses: Special/Express, Normal (Academic) and Normal (Technical). Application type questions could be included in this section.
B	30%	<ul style="list-style-type: none"><li>- Short answer questions</li><li>- Structured questions</li><li>- Data response questions</li><li>- Free response questions</li></ul>	These sections should be different for the three courses. Questions of varying difficulty should be set for the different courses.
C	50%	<ul style="list-style-type: none"><li>- Data response questions</li><li>- Structured questions</li><li>- Free response questions</li></ul>	

## Coursework

Differentiation in the coursework could be achieved by setting different tasks and outcomes. Teachers should ensure that pupils from the different courses undertake appropriate tasks .

### Format of Coursework

All pupils will be required to submit a completed coursework task which involves the production of an item. The task should vary in difficulty for the three courses. The task set should involve pupils in considering and evaluating a situation that embraces one or more areas of the syllabus, namely *Food & Nutrition*, *Textiles & Clothing* and *Consumer Education*. All pupils are required to present their findings and decisions in a folio, which should not exceed 10 A4 sheets in either plain white or lined papers. The folio should be submitted in hand-written or printed form in a flat, securely bound A4 folder. Documentation can be in the form of illustrations, flow charts, data or any other appropriate means.

Criterion-referenced marking is used in the assessment of coursework. The indicators used in assessment rubrics should be differentiated for the different courses. Teachers are advised to consider the complexity of the tasks set when drawing up the indicators. The process skills assessed can be found in the table below.

<b>PROCESS SKILLS</b>	<b>EXPANATORY NOTES</b>
Task Analysis	Pupils are to identify and define a task or a specified context
Research	Pupils are to gather, process and apply information
Decision Making	Pupils are to make decisions based on criteria established
Planning	Pupils are to plan a suitable time-line for the task
Execution	Pupils are to: <ul style="list-style-type: none"><li>• Demonstrate organisation and management skills</li><li>• Demonstrate proficiency in the use of equipment</li><li>• Produce and present suitable products</li></ul>
Evaluation	Pupils are to evaluate the application of the process and the outcomes

## 10. SUGGESTED RESOURCES

NO.	TITLE	AUTHOR	PUBLISHER	YEAR
<b>A. FOOD AND NUTRITION</b>				
1.	Adventures in Food and Nutrition	Bryd-Bredbenner, C.	Goodheart-Willcox Co Inc., USA	1997
2.	Exploring Science in the Foods Lab	Byrd-Bredbenner, C.	Goodheart-Willcox Co Inc., USA	2000
3.	Food For Today (6 <sup>th</sup> Edn)	Kowtaluk, H.	Glencoe, McGraw-Hill, USA	1997
4.	Nasco's Activities for Food Classes	Schmelzel, C. R	Nasco, USA	1988
5.	Puzzle Power-Variied Activities for Teaching Some of the Basics of Nutrition	Schmelzel, C. R.	Nasco, USA	1997
6.	This is Your Life!	Storper, B.	Foodplay Productions, USA	1999
<b>B. TEXTILES AND CLOTHING</b>				
7.	Fabric Glossary	Humphries, M.	Prentice Hall, USA	1996
8.	Nasco's Puzzle Power: Clothing	Schmelzel, C. R.	Nasco, USA	2000
9.	Nuffield Design & Technology : Textiles	-	Addison Wesley Longman Ltd, UK	1996
10.	Textiles and Technology	Bulch, K. Oppermann, K.	Cambridge University Press, UK	1994
11.	Wardrobe Management- Dress Well For Less (Video-Cassette- 21 min)	-	The Learning Seed, USA	1993

NO.	TITLE	AUTHOR	PUBLISHER	YEAR
<b>C. CONSUMER EDUCATION</b>				
12.	Budgeting	Wilkinson, C.R.	C.W. Publications, USA	2000
13.	Buying Food	Wilkinson, C.R.	C.W. Publications, USA	2000
14.	Consumer Crosswords	Wilkinson, C.R.	C.W. Publications, USA	2000
15.	Everyday Things	Wilkinson, C.R.	C.W. Publications, USA	2000
16.	Facts and Fiction: Food Advertising	-	Low-Fat Express/Learning Zone, USA	-
17.	Shopping Skills	Wilkinson, C.R.	C.W. Publications, USA	2000
18.	Teaching Consumer Concepts	Westphal, C.	J. Weston Walch Publisher, USA	1998