

HOME SCIENCE CURRICULUM

1. RATIONALE

Home Science is a subject which promotes understanding of each aspect of the home with necessary scientific basis and provides essential knowledge to face the changing ways of life. An attempt has been made to develop a course by adopting an integrated approach towards the application of science, technology and humanities in areas like resource management, health, nutrition, child development and textiles. Keeping in mind the fact that the Senior Secondary stage could be the terminal point of study for most learners this course not only better equips them to deal with problems on the home front but also offers information on advanced vocational streams for those who decide to pursue a career.

2. OBJECTIVES

The comprehensive objectives of teaching Home Science at this level are to:

- develop a scientific approach through application of science and technology in everyday living;
- promote awareness of ill-effects of environmental degradation on human lives;
- explain principles and techniques to handle problems in middle childhood and adolescence;
- impart advanced knowledge of textiles;
- explain the need and basis of therapeutic nutrition.

3. DISTRIBUTION OF MARKS

<i>Modules</i>	<i>Marks</i>
THEORY	
Resource Management	16
Development in Middle Childhood	16
Fabric Science	16
Food and Nutrition	16
Optional Module	16
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	80
PRACTICAL	20
TOTAL	<hr/>
	100

4. COURSE DESCRIPTION

The course has been divided into two parts : the CORE modules and some OPTIONAL modules. The core modules comprise four in number and impart knowledge and information which is essential for all learners. These are compulsory for all students of the course. There are three optional modules out of which the students have to choose and study any one module.

CORE MODULES

4.1 RESOURCE MANAGEMENT

This module is designed to familiarize the reader with the concept of conservation of energy, to create a sense of maintaining ethics at work, to develop skills in money management, and to show how the available space and time can be effectively used to maximize output.

4.1.1 SCOPE OF HOME SCIENCE

- need
- scope
- employment opportunities

4.1.2 CONSUMER EDUCATION

- definition
- problems faced
- Consumer Protection Act
- consumer redressal

4.1.3 WORK ETHICS

- meaning and importance
- competence and work ethics

4.1.4 INCOME MANAGEMENT

- definition
- recording income and expenditure
- supplementing income

4.1.5 SAVINGS AND INVESTMENT

- importance and methods of saving
- agencies of investment
- financing agencies

4.1.6 WORK ORGANISATION

- meaning and need
- principles of work simplification
- time and energy management

4.1.7 SPACE ORGANISATION

- meaning and need
- space organisation for various activities
- space organisation and aesthetics

4.1.8 ENERGY AND CONSERVATION

- meaning and need
- areas where energy can be conserved
- at home and work place
- non conventional sources of energy

4.1.9 ENVIRONMENT MANAGEMENT

- environmental degradation

- effects on man
- creating an eco-friendly environment

4.2 DEVELOPMENT IN MIDDLE CHILDHOOD

This module gives information about the growth and development of children and adolescents and the factors influencing the same. It also sensitizes the students to the situation of the child in India.

4.2.1 GROWTH AND DEVELOPMENT IN MIDDLE CHILDHOOD

- characteristics of physical, motor, socio-emotional, cognitive and language development
- role of peers
- socialisation at school

4.2.2 ADOLESCENCE

- characteristics of physical, motor, socio-emotional, cognitive and language development
- self concept
- developmental tasks
- sex education at school
- problems faced by adolescents

4.2.3 SPECIAL ISSUES IN CHILD DEVELOPMENT

- position and role of girl child
- juvenile delinquency
- child labour
- major physical disabilities
- socio-economic disadvantage children

4.3 FABRIC SCIENCE

This module aims at familiarizing the reader with the basic properties of the various fibres, yarns and fabrics available in the market today, how to select fabrics for various end uses, and how a variety of designs can be obtained through weaves, finishes, colours and dyes. Some essential information on care and maintenance of clothes has also been given in the module.

4.3.1 INTRODUCTION TO FABRIC SCIENCE

- definition and scope
- fibre – definition and classification
- properties of fibres

4.3.2 YARNS

- definition, terminology
- yarn processing
- yarn types
- textured yarns

4.3.3 FABRIC CONSTRUCTION

- meaning
- techniques of fabric construction
- weaving – process and designing
- knitting
- weaving vs knitting

4.3.4 TEXTILE FINISHES

- definition, importance and classification of finishes as routine and special
- finishing with colour
- printing, tie and dye, batik

4.3.5 SELECTION OF TEXTILES AND CLOTHING

- labels and markings
- malpractices
- judging quality of textile products
- selection of fabrics for different end uses
- selection of clothing for different age groups

4.3.6 CARE AND MAINTENANCE

- need
- general principles
- storage of clothes

4.4 FOOD AND NUTRITION

This module gives useful information about foods, their functions, nutrients and their requirement. It equips one to plan and understand adequate meals for the family, and recognize nutritional disorders and ways to combat them. Readers will also be able to modify diet to suit certain common diseased conditions.

4.4.1 YOU AND YOUR FOOD

- definition of food
- functions of food
- food groups

4.4.2 NUTRITION

- definition
- nutrients – functions and sources
- nutrient requirements – RDI based on household measures and food groups

4.4.3 ADEQUATE MEALS

- balanced diet
- need for meal planning

- factors affecting meal planning
- meals for various age groups
- modification of family meal
- hygienic food handling

4.4.4 NUTRITIONAL STATUS AND HEALTH

- malnutrition
- assessing nutritional status
- height and weight
- diet and nutrient intake
- recognizing deficiency disorders: anemia, PEM, Vitamin A and iodine
- on going governmental and non-governmental nutrition programmes

4.4.5 NUTRITIONAL CARE OF SICK IN FAMILY

- need for special care
- diet modification
- diet in common diseases: diarrhoea, constipation, fever, jaundice, high blood pressure & diabetes
- diet in nutrition related problems: PEM, anemia, Vitamin A deficiency and obesity

4.4.6 PURCHASE AND STORAGE OF FOOD

- selection of food
- food spoilage
- methods of storage

4.4.7 FOOD PRESERVATION

- general principles of preservation
- preservation at home

4.5 A COMMUNITY NUTRITION

RATIONALE

The future of a country depends on the state of health of its population. One has to understand the significance of good health of a community with reference to national development. This module will bring awareness of the common nutritional problems facing India and at the same time describe the various methods used to assess the ongoing nutritional programmes in the community. The module will give sufficient knowledge on planning and conducting nutrition education programmes in a community.

4.5.1 NUTRITIONAL STATUS — ITS ASSESSMENT

- methods of assessment
- anthropometry

- clinical
- diet survey

4.5.2 NUTRITION EDUCATION METHODS

4.5.3 MAJOR NUTRITIONAL PROBLEMS IN INDIA

- extent of major nutritional problems observed in India — energy def., PEM, anemia, deficiency of Vitamin A, B and iodine, fluoride toxicity and obesity
- Government programmes and policies

4.5 B HOME BASED CARE FOR UNDER FIVES

RATIONALE

This module will provide the essential knowledge for providing services to the under fives for short periods, from the home itself. It will enable the reader to work efficiently at a day care centre / balwadi / home tutorial programme. It is also partly aimed at developing parenting skills in the young readers.

4.5.1 MEANING, NEED, OBJECTIVES

- meaning of home based care
- need-working parents / nuclear families
- objectives — safe physical environment / stimulating activities / learning opportunities / preparation for school

4.5.2 REQUIREMENTS / ESSENTIALS

- organizing and preparing available space
- equipment
- play materials
- safety / first aid

4.5.3 ORGANIZING ACTIVITIES

- creative activities
- preparing and using learning material
- material from environment

4.5.4 NUTRITIOUS MEALS

- selecting nutritious snacks
- developing proper eating habits

4.5.5 ACCOUNTS

- setting up and starting the service
- records / costing / account keeping

4.5 C LAUNDRY SERVICE

RATIONALE

This model will equip the readers with the skill to launder various types of fabrics and use the appropriate procedures as required. Learners will be in a position to provide professional services and set up their own units if required.

4.5.1 FABRICS AND LAUNDRY

- properties related to care and maintainence of – cotton, silk, wool, synthetics

4.5.2 CLEANSERS AND LAUNDRY AUXILIARIES

- characteristics, function and uses of soaps, detergents, blues, starches, etc.

4.5.3 STAIN REMOVAL

- identifying stains
- methods of removal

4.5.4 WASHING AND FINISHING

- washing of cotton, silk, wool, synthetics
- special treatment given to heavy, light, delicate fabrics
- dirty articles

4.5.5 CLOTH MAINTENANCE

- ironing
- pressing
- folding
- for collection, washing, drying, ironing and holding

4.5.6 SETTING UP A UNIT

- setting up and starting the service

LIST OF PRACTICALS

1. To prepare a label depicting each of the following marks of standardisation : i) ISI ii) FPO iii) Agmark.
2. To fill in various forms at a bank : i) cheque ii) pay in slip iii) withdrawal form.
3. To study the resource use pattern of various family members at your home.
4. To list habits of members of your family and neighbours which degrade the environment and suggest ways to conserve it.
5. To identify the discriminations against a girl child (if any) in your family and find justifications for the same.
6. To identify a child labourer in your locality and develop a profile of the child.
7. To identify a child with special needs and study the family's efforts in his/her achieving independence.
8. To develop a questionnaire to study a family's efforts in helping an adolescent achieve the developmental tasks.
9. To identify various types of fibres using: i) burning test ii) visual inspection
10. To find out the thread count of different types of fabrics.
11. To tie and dye a cotton fabric using various methods of tying.
12. To remove the following stains from white cotton fabrics : i) curry ii) blood iii) mud iv) ink v) tea/ coffee.
13. To prepare simple dishes using the following methods of food enrichment: i) combination ii) fermentation iii) germination.
14. To study the nutritional intake and its effect on the nutritional status of a family by maintaining a food diary.
15. To study the programme at a play centre to determine the center's role in: i) socio-emotional development ii) physical motor development iii) cognitive development.
16. To develop a plan to set up a laundry unit to provide door to door service in: i) rural area ii) area with government flats iii) posh society.