

MODULE 1: INTRODUCTION TO VOCATIONAL AND HOME-ECONOMICS EDUCATION

UNIT 1: SCOPE OF VOCATIONAL AND TECHNICAL EDUCATION

INTRODUCTION

Vocational and technical education is education given in schools or class under public supervision and control. It is a systematic learning experiences which is designed to fit individuals for gainful employment in an occupation. Vocational education provides a wide range of skill levels from basic entry level skill to higher level requiring higher degree of specialization and competency. Vocational education programmes are offered at the secondary, post secondary adult levels.

OBJECTIVES

By the end of this unit, you should be able to:

- (i) State the objectives of vocational and technical education.
- (ii) Define vocation, skill and vocational training.
- (iii) Differentiate between career and occupation.

HOW TO STUDY THIS UNIT

1. Read carefully through the unit.
2. Note the definitions in the study.

WORD STUDY

1. Vocation: Vocation is one's chief gainful pursuit or occupation by which an individual social and economic conditions are determined.
2. Career: This is the totality of work one does in his or her lifetime.
3. Vocational and technical education is concerned with preparing students to earn a living in an occupation which success is dependent largely upon technical information.

ACTIVITY

1. Mention four (4) objectives of vocational and technical education.
2. Define the following terms:

(a) Vocation (b) Skill (c) vocational training

3. Differentiate between occupation and skill.

SCOPE OF VOCATION AND TECHNICAL EDUCATION

Areas of specialization in VTE include:

1. Home Economics Education
2. Agricultural Education
3. Business and office Education
4. Distribution Education
5. Trade and industrial Education
6. Health occupation Education
7. Technical Education.

PHILOSOPHY OF VOCATIONAL AND TECHNICAL EDUCATION

Vocational and technical education is education given in schools or class under public supervision and control. It is a systematic learning experiences which is designed to fit individuals for gainful employment in an occupation. Vocation education provides a wide range of skill levels from basic entry level skill to higher level requiring higher degree of specialization and competency. Vocational education programmes are offered at the secondary, post secondary adult levels.

OBJECTIVES OF VOCATIONAL AND TECHNICAL EDUCATION

1. To provide technological literacy to all pupils thus preparing school pupils for life in a technological age.
2. To develop the right attitude towards work and the habits of minds conducive to the proper use of technology.
3. To provide adequate technological orientation and preparation for advanced professional education and training in technology.
4. To equip school leavers with skills to earn a living.
5. To stimulate and encourage creativity.
6. To provide awareness that technology solves and creates problems as well.

DEFINITIONS OF TERMS/CONCEPTS

1. **Vocation:** Vocation is one's chief gainful pursuit or occupation by which an individual social and economic conditions are determined.
2. **Occupation:** Occupation is one's primary work role in the world of paid employment, occupation goes with some monetary reward for work done.
3. **Career:** This is the totality of work one does in his or her lifetime.
4. **Skill:** This is the specific abilities required of an individual in order to facilitate the learning and doing of tasks, or jobs or work or duty. This ability to do work is learnt until one is proficient (expert in the skill) through regular practice.
5. **Education:** Embraces both formal (school) and informal (out of school) experience gained by an individual.
6. **Vocational training:** Skill development through imitation, observation, personal initiative, etc.
7. **Technical Education:** is teaching and learning (education) process that involves the study of technologies and related services and acquisition of practical skills and specialized knowledge relating to occupations in various sectors of economic and social life.
8. **Vocational and technical education:** is concerned with preparing students to earn a living in an occupation which success is dependent largely upon technical information. It is concerned with the development of skills, knowledge and attitude (behavior) required for success in any useful occupation.

SUMMARY

Vocational education is learning experience that equips individuals for gainful employment. It provides a wide range of skills, technological literacy, right attitude toward work and habits. Through the achievement of its objectives creativity is acquired.

REFERENCE

Asuquor, E.E (2005). Fundamentals of Vocational and Technical Education. Smith standard Nigeria Ltd. Kano.

UNIT 2: DEVELOPMENT OF VOCATIONAL AND TECHNICAL EDUCATION IN NIGERIA

INTRODUCTION

In the colonial era, there was little emphasis on vocational programmes. Western education came to Nigeria by the missionaries in 1900 Lagos board of education passed a resolution that there was need to provide comprehensive scheme of public instruction in liberal education to prepare the youth for husbandry and craft.

In 1929, a technical instructor was employed from Britain and a technical training scheme began on a permanent basis.

OBJECTIVES

By the end of this unit, you should be able to:

- (a) Write brief history on the development of vocational and technical education in Nigeria.
- (b) Mention the boards that coordinate efforts and activities in vocational and technical education in Nigeria.

HOW TO STUDY THIS UNIT

1. Read carefully through the unit.
2. Note the development of vocational and technical education in Nigeria.
3. Identify the boards that coordinate efforts and activities in vocational and technical education in Nigeria.

WORD STUDY/ACRONYMS

NBTE–National Board for Technical Education.

CESAC – Comparative Education Studies for Adaptation Centre.

NERC – Nigeria Educational Research Council.

NCCE – National Commission for Colleges of Education.

ACTIVITY

1. Write brief history on the development of vocational and technical education in Nigeria.
2. Mention the boards that coordinated efforts and activities in vocational and technical education in Nigeria.

DEVELOPMENT OF VOCATIONAL AND TECHNICAL EDUCATION IN NIGERIA

During the colonial period, there was little emphasis on vocational programmes. Western education came to Nigeria by the missionaries in 1900 Lagos board of education passed a resolution that there was need to provide comprehensive scheme of public instruction in liberal education to prepare the youth for husbandry and craft.

In 1929 a technical instructor was employed from Britain and a technical training scheme began on a permanent basis. Many nationalist including Dr. Azikime in 1934 complained about lack of opportunities for technical trained Nigerians. Up to the end of 2nd World War, Nigerian government continued to neglect vocational and technical education.

In the ten year plan of 1942, the need for large trade schools was not recognized. (Nigeria Year Education, Plan, 1942). This was helped the government to recognize the value of vocational education. As a result the colonial government resolved that there was an urgent need for separate technical school. The policy recommended and was responsible for the establishment of three trade centres in Enugu, Yaba and Zaria. As a result of the recommendations also, some government department e.g. Railway workshop at Iddo, Zaria, Enugu and Nigerian Marine works department expanded their apprenticeship training schemes to train in more technical personnel both for their use and for others.

The first major step taken to promote technical and vocational education was the acceptance of the minority report of Walter Elliot's commission. The commission was set up in 1943 but the report was published in 1945, it recommended that there was need for facilities for education beyond the school certificate in West Africa. A delegation from Inter University Council for higher education headed by Sir W.H. Fyfe endorsed this minority view when they visited Nigeria in 1947, the delegation recommended the establishment of colleges in line with "Polytechnic" in the (UK) United Kingdom. It was recommended that the schools to be established in Zaria and Enugu to provide vocational and professional programmes.

Ashby commission made several recommendations which are the basis in the development of technical and vocational education in Nigeria. The recommendations include:

1. The establishment of three new universities to train high technical and professional personnel in many areas.

2. The expansion of the technical institutes at Yaba, Kaduna, and Enugu and those proposed for Benin and Port Harcourt to provide the 25,000 technicians needed yearly by Nigeria.
3. The establishment of a standing conference on technical education of enhance the prestige of the institutes and ensure their relevance to the need of the country.
4. Universities to offer courses in commercial subjects such as accounting, Insurance Banking, etc.
5. Some girl's schools to provide one year post school certificate in commercial course shorthand and typing and in English.

In addition, various boards were empowered to coordinate efforts and activities in vocational and technical education at various levels these board include the National Board for Technical Education (NBTE).

The Comparative Education Studies and Adaptation Centre (CESAC)

The Nigeria Educational Research Council (NERC)

National Commission for Colleges of Education (NCCE)

By the year 2000, the past and present government had already secured 43 colleges of education, 38 polytechnics and five (5) conventional university of technical training courses in technical and vocational teachers preparatory programmes across the country.

SUMMARY

The development of Vocational and Technical Education in Nigeria has gone through colonial period to present. Various boards coordinate the activities in vocational and technical education at various levels the board include the NBTE, CESAC, NERC and NCCE.

REFERENCE

Asuquor, E.E (2005). Fundamentals of Vocational and Technical Education. Smith standard Nigeria Ltd. Kano.

UNIT 3: CHARACTERISTICS, PROBLEMS AND PROSPECTS OF VOCATIONAL AND TECHNICAL EDUCATION

INTRODUCTION

Vocational education introduces the individual to the acquisition of manual skills. The courses involve a lot of capital for the essential facilities.

OBJECTIVES

By the end of this unit, you should be able to:

1. Mention the characteristics of vocational and technical education.
2. State two major problems of vocational and technical education.
3. Suggest ways to solve the problems.

HOW TO STUDY THIS UNIT

1. Read carefully through the unit.
2. Identify characteristics of vocational and technical education

WORD STUDY

Vocational Education: Learning provided formally in schools or out of school to equip the learner with skills and creativity for self-reliance.

ACTIVITY

1. Mention four (4) characteristics of vocational and technical education.
2. State two (2) major problems of vocational and technical education.

CHARACTERISTICS OF VOCATIONAL AND TECHNICAL EDUCATION

1. All courses in vocation and technical education introduce the learner to acquisition of manual skills in an area or a vocation.
2. Courses are capital intensive because they involve the use of high technical facilities which must be provided before the accreditation of the course.
3. Most of the courses can be taught formally (in school) with certificate and informally (out of school) as a vocation without certificate.
4. All courses stimulate and encourage creativity in the learners.

5. All courses develop in the learner the right attitude to work and the proper use of technology.
6. Courses are offered termly or seasonally.

PROBLEMS OF VOCATIONAL AND TECHNICAL EDUCATION IN NIGERIA

1. Inability of vocational education to achieve the status and prestige needed to perform its proper and vital role in technical society.
2. The difficulty of integrating general education with occupational education in order to provide for medium individual development and preparation for work.
3. Lack of enough infrastructure and material for the programme.
4. Lack of enough time for teaching/learning of vocational skills.
5. Lack of establishing good relationship between students programme and the world of work (industries and technical ventures could not prosper because of lack of raw materials and electricity thereby not functioning).

SOLUTIONS

1. High recognition and popularity should be given to VTE with all necessary incentives.
2. Proper development and good orientation must be given to students through affective integration of VTE with general education.
3. Workshops, laboratories, fields, classrooms should be constructed to create the necessary space for the teaching and learning of VTE with modern equipment.
4. Allocation of greater part of the available time should be accorded to VTE so that all the details of the syllabus will be covered with practical exposure.
5. More emphasis is needed in establishing good relationship between students programmes and the world of work.

PROSPECTS OF VTE

- Nigeria is one of the 20 countries who are working towards becoming highly technological by the year 2020.
- More students are enrolling in courses under VTE. It is hoped that many teachers will be produced to cater for the manpower needs of the nation.

- Many industries will be revived and opportunities will be provided in the world of work. Better relationship will be developed between the students programme and the world of work.

SUMMARY

Vocational education introduces the individual to the acquisition of manual skills. The courses involve a lot of capital for the essential facilities. Adequate infrastructure and material are still lacking in the programme. There is need to establish good relationship between students programmes and the world of work. The prospect of vocational and technical education is that many industries who have folded up could be revived.

REFERENCE

Asuquor, E.E (2005). Fundamentals of Vocational and Technical Education. Smith standard Nigeria Ltd. Kano.

Okoro, O.M (2003). Principles and methods in Vocational Education Nsukka. University Trust publishers.

UNIT 4: DEFINITION AND CONCEPT OF HOME ECONOMICS

INTRODUCTION

Home Economics can therefore be seen as a field of knowledge and services primarily concerned with strengthening family life. It is a field of knowledge, which synthesizes knowledge drawn from physical, biological and social sciences, and the arts and this knowledge applies to improving the lives of the families and individuals.

OBJECTIVES

After studying this unit, you should be able to:

- i. Define Home Economics.
- ii. Mention the importance of Home Economics.
- iii. State the scope of Home Economics.

HOW TO STUDY THIS UNIT

1. Read through the unit carefully.
2. Note the various definitions of Home Economics.
3. Note also, the importance of Home Economics and its related fields.

Characteristics of Home Economics:

- (i) Home Economics is an interdisciplinary study, dealing with all the important problems related to its field from the global point view. (Fayemi, 1983)
- (ii) Home Economics as a multidisciplinary subject that covers a very large area and draws from many other disciplines like arts and sciences in solving physical, social and economic problems of families and individuals. (Aliu, 1991).
- (iii) Home Economics as a subject that is concerned with using and managing human and material resources for the families, individuals and communities. (The International Federation of Home Economics, 1979).

ACTIVITY I

1. What is Home Economics according to Aliu (1991)?
2. Mention four (4) importance of Home Economics.
3. List five (5) interrelated fields in Home Economics.

HOME ECONOMICS DEFINED

Home Economics is not new. Home makers have always maintained the sacred ideas of the family and have continued to make them stable factors in the society.

Home Economics can therefore be seen as a field of knowledge and services primarily concerned with strengthening family life. It is a field of knowledge, which synthesizes knowledge drawn from physical, biological and social sciences, and the arts and this knowledge applies to improving the lives of the families and individuals.

Fayemi (1983), defines home economics as an interdisciplinary study, dealing with all the important problems related to its field from the global point view. In another development, Aliu (1991), defines home economics as a multidisciplinary subject that covers a very large area and draws from many other disciplines like arts and sciences in solving physical, social and economic problems of families and individuals. The International Federation of Home Economics (1979), defined “home economics as a subject that is concerned with using and managing human and material resources for the families, individuals and communities. This involves the study and research in sciences and arts concerned with the various aspects of family life in particular and the society at large.

Since home economics is the corner stone of any society, the importance of home economics to a decent society cannot be over-emphasized.

The Importance of Home Economics

1. It prepares students for family and community living;
2. It provides an opportunity for creativity;
3. Home Economics helps in the development of the individual;
4. Home Economics develops in students a better understanding of human relations;
5. It gives an individual the ability to adapt to a changing environment;
6. The study of home economics helps the students to develop self-confidence;

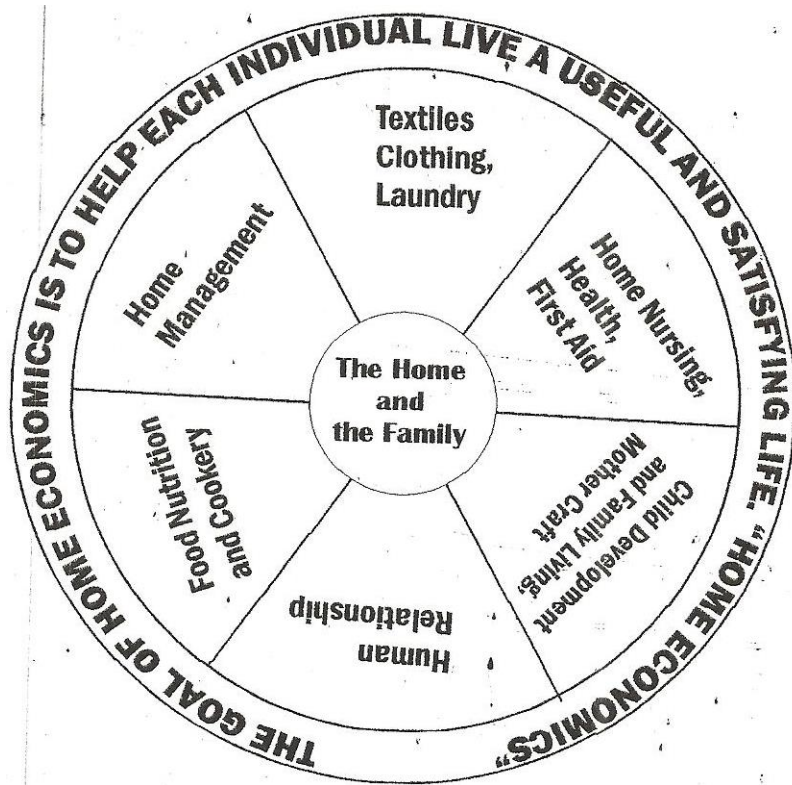
7. It provides job opportunities for the students;
8. Home Economics helps to develop sound attitudes and promotes good family standards and values;
9. It helps to solve personal and family problems such as nutrition, clothing, finance and family relationship problems;
10. Home Economics helps the students to lead a satisfying life.

Scope of Home Economics

Home Economics embraces the study and application of liberal arts and natural and social sciences, and their application to everyday life. It combine the liberal art and the technical, the scientific and the artistic, in other words, home economics applies the findings of the physical, biological and social sciences to the solving of problems arising in the operation of a home and in the care of the family.

There are twelve separate but interrelated fields in home economics:

1. Clothing can structure, design and theory;
2. Child development and family relations;
3. Communication;
4. Food – its preparation, management and technology;
5. Family and community health and welfare;
6. Housing;
7. Household equipment;
8. Interior design and decoration;
9. Textile design, production and management;
10. Human nutrition and dietetics;
11. Family Economics and Home Management;
12. Education.



SUMMARY

Home Economics is a field of knowledge and services which is concerned with strengthening family life. Home Economics is an area of knowledge which concerned with using and making human and material resources for meeting the family and community. It prepares students for family and community living. Core courses like Clothing and Textiles, Food and Nutrition, Child Development, Home Management and Home Economics Education. Home Economics as a multidisciplinary subject that covers Arts, Sciences in solving physical, social and economic problems of families.

REFERENCE

Okoro, O.M. (2003). Principles and methods in Vocational Education Nsukka. University Trust publishers.

UNIT 5: PHILOSOPHY AND OBJECTIVES OF HOME ECONOMICS EDUCATION

INTRODUCTION

Modern philosophies of education are based on the assumption that education should concern itself with all aspect of an individual's life. The philosophy of home economics education is a philosophy which has helped men to evolve the institution 'home' encouraged virtues of affection, courage, sympathy and nobility, and developed an appreciation of love for family, community, country and humanity as a whole. Through this philosophy "home" has become the most influential and sweetest of all human institutions and organization in shaping the destiny of man.

OBJECTIVES

After studying this unit, you should be able to:

- i. Outline the philosophies of home economics.
- ii. Mention the objectives of Home Economics.
- iii. List the aims of Home Economics.

HOW TO STUDY THIS UNIT

1. Read through the unit carefully.
2. Note the philosophy of Home Economics.
3. Also note the objectives and aims of Home Economics.

ACTIVITY I

1. Outline the philosophies of education
2. Mention four (4) objectives of Home Economics
3. List three (3) Aims of Home Economics.

PHILOSOPHY OF HOME EDUCATION

Modern philosophies of education are based on the assumption that education should concern itself with all aspect of an individual's life. The philosophy of home economics education is a philosophy which has helped men to evolve the institution 'home' encouraged virtues of affection, courage, sympathy and nobility, and developed an appreciation of love for family, community, country and humanity as a whole. Through this philosophy "home" has become the most influential and sweetest of all human institutions and organization in shaping the destiny of man.

However, the home of the past is not the home of today. The emergence of formal education, civilization and technology has altered the structure and function of the home. For women to meet the changes of modern times, they need education that will cater for the demands of the time, such as knowledge of modern and scientific equipment in the home. Home economics education aims to meet such demands. Education in home economics can help youth to become self reliant and also stern the tide of youth unemployment. It will teach youth all about correct family behavior. Therefore some outlined philosophies of home economics include:-

- I. Making every Nigerian a worthy member of the larger Nigerian family.
- II. Establishing fruitful and happy family relationships among family members.
- III. Developing necessary competencies required and necessary for nation building.
- IV. Education the Nigerian youth on the dangers and consequences of drug abuse.

OBJECTIVES OF HOME ECONOMICS

1. To establish values which gives meaning to personal, family and community living
2. To create a home and community environment conducive to the healthy growth and development of members of the family at all stages of family cycle.
3. To achieve good interpersonal relationships with the home and the community
4. To nurture the young and foster their physical, mental and social growth and development
5. To make and carry out intelligent decisions regarding the use of personal, family and community resources
6. To perform the task of maintaining a home in such a way that they will contribute effectively to furthering individual and family growth

7. To establish long range of goals for financial security and work towards their achievements
8. To plan the consumption of goods and service including food, clothing and housing in such a way that will promote values and goals established by the family
9. To purchase consumer goods and services appropriate to an overall consumption plan and wise use of economic resources
10. To enrich personal and family life through the arts and humanities and through refreshing and creative use of leisure
11. To take an intelligent part in legislative and other social action programmes which directly affect the welfare of individuals and families
12. To develop mutual understanding and appreciation of differing culture and ways of life, and cooperate with people of other cultures to raise the level of living.

AIMS OF HOME ECONOMICS

Home economics programmes and their success can be measured by the extent to which they contribute to the development by individuals and families of various competencies. Therefore home economics, through its various aspects should aim at providing learning experiences geared towards:-

- (ii) Developing the individual to his maximum capacity
- (iii) Acquiring ethical ideals and appreciation for high standards
- (iv) Acquiring intellectual and practical skills essential to better living
- (v) To improve the services and goods used by the family
- (vi) Creating a home and community environment conducive to healthy living
- (vii) Nurturing the young and fostering their physical, moral and social growth
- (viii) Developing creative expression for worthy leisure activities
- (ix) Developing good human relationships within the school and the community
- (x) Developing a mutual understanding and the appreciation of different cultures and ways of life, for helping the less privilege to raise their living standards
- (xi) Providing leadership to youth and training them to shun crime and drug abuse and live useful healthy lives.

SUMMARY

Home Economics Education is a multidisciplinary subject that covers a large area of other discipline but mainly concerned with the use and management of human and material resources to achieve family goals. It encourages the individual achieve good relationships with the home and the community.

REFERENCE

Asuquor, E.E (2005). Fundamentals of Vocational and Technical Education. Smith standard Nigeria Ltd. Kano.

Okoro, O.M (2003). Principles and methods in Vocational Education Nsukka. University Trust publishers.

UNIT 6: HISTORY OF HOME ECONOMICS IN NIGERIA

INTRODUCTION

Home economics education in Nigeria dates back to 1845 when different sets of missionaries arrived in the country. The first batch of missionaries established a boarding school at Badagry near Lagos in 1845, and subjects taught included gardening, carpentry and housecraft. In the later part of the 19th century, domestic science was taught informally to girls preparing for marriage and to the wives of the various religious groups by missionaries and some voluntary agency personnel.

OBJECTIVES

After studying this unit, you should be able to:

- i. Write a brief history of home economics in Nigeria.
- ii. Mention the contribution of missionaries to Home Economics Education in Nigeria.

HOW TO STUDY THIS UNIT

- i. Read through the unit carefully.
- ii. Note the historical development of Home Economics in Nigeria.
- iii. Note the influence of missionaries and their contributions to Home Economics.

WORD STUDY

Home Economics:-

Initially, different names such as Domestic science, Housecraft, Home science, Home management, Craft and domestic science were used in Nigeria for what is now referred to as Home Economics.

ACTIVITY I

1. Mention 5 missionaries who influenced Home Economics in Nigeria.
2. State 5 subjects introduced by the Catholic Nuns in St. Mary's Covent School.

HISTORY OF HOME ECONOMICS IN NIGERIA

Home economics education in Nigeria dates back to 1845 when different sets of missionaries arrived in the country. The first batch of missionaries established a boarding school at Badagry near Lagos in 1845, and subjects taught included gardening, carpentry and housecraft. In the later part of the 19th century, domestic science was taught informally to girls preparing for marriage and to the wives of the various religious groups by missionaries and some voluntary agency personnel. The girls were usually taught a few household skills such as cleaning, cooking and sewing. In 1873, the catholic missionary nuns who came from France established St. Mary's Covent School in Lagos. Domestic science was a major subject taught. The Wesleyan (now called Methodist Church Society) and Anglican missionaries who arrived in Nigeria taught domestic science in their respective schools. Simple cookery, sewing, and housewifery were taught to women who were mainly wives or intended wives of the supportive staff of these missionaries for their utility values.

Domestic science was later introduced as a school subject into the existing formal educational institutions. Domestic science centers were also opened in various parts of the country and this helped to develop practical skills in girls who were or would have been school drop-outs. There were lessons in craft work of various types as well as in cooking and sewing.

In the beginning, different names such as Domestic science, Housecraft, Home science, Home management, Craft and domestic science were used in Nigeria for what is now referred to as Home Economics. Domestic science was acquired from the British and this was used for many years in Nigeria. The term "Home Economics" which surface in 1899 at the Lake Placid Conference became the official term for all domestic science or Art courses in the United States in 1902. Nigeria adopted the name in "May 1965" during a UNICEF assisted national conference on Home Economics/Nutrition at Zaria, Nigeria. Since then, the name "Home Economics" has been accepted nationwide in Nigeria. It has brought prestige and better recognition to the discipline.

INFLUENCE OF MISSIONARIES

The story of domestic science and later home-economics in Nigeria has specifically mentioned, the pioneering efforts of missionaries in making it what it is in Nigeria today. It will amount to doing honour and give credit for this pioneering effort and for the interest of posterity

if we give credit to the roles played by organizations and individuals in this matter as we consider:-

i. The Catholic Nuns:-

In or about 1873, among the missionaries who arrive in Nigeria were catholic nuns, and when they pitched their camp in Nigeria, they set up St. Mary's Covent School. In this school, as well as literally subjects they introduced the teaching of housewifery, laundry science, needle work, cookery, embroidery and child care as a 'marriage training venture'.

ii. Miss Blackwell:-

She was the first principal of Queens College Lagos. Her pioneering effort in the school led to the introduction and study of domestic science for the students. Her pioneering effort also saw the establishment of the higher house craft for girls. The higher house craft class is a kind of department that offer more advanced training in domestic science. Usually the girls who passed the Junior Cambridge Examination or Secondary class four are the category of girls that gain admission to the higher house craft classes.

iii. Miss Gladys Plumer:-

As a domestic science expert, she did a lot of work for the development and the upliftment of the subject. What she did will best be appreciated when it is remembered that, as the deputy director of education (women) in Nigeria, a post she held before her retirement, she travelled wide in the country and helped a great deal to fashion the direction and development of the subject.

iv. Miss Baker and Mrs. E. Richard:-

Both of them worked in the east as domestic science inspectors, while Dinnick-Parr and Miss Messenger worked in identical capacities in the north if we remember the great roles played by inspectors of education in Nigeria at that time, then we should appreciate the great sacrifices these persons' had to exhibit in helping to forge the present patterns of education in domestic science.

v. Mrs. Johnstone:-

She used to be deputy chief inspector of education in Lagos State, come of her contributions to the development of Home Economics in that state included the arranging and hosting of

seminars and workshops and authoring several home economics texts. These helped in no small way to make domestic science what it is today in the country.

vi. Mary Slessor:-

She was a missionary nurse and worked mainly in Cross-River State. Her appearance in Nigeria coincided with the period when it was a cultural taboo to give birth to twins. By superstition, twins had violated the sacredness of the land because of their abnormality for which they must be killed and sacrificed to the gods of the land. Due largely to her effort, she dissuaded the people from these practices and taught them that twins were normal as they have arisen from a purely biological process. She is therefore remembered for her work in the area of child care and family health.

SUMMARY

Home Economics Education in Nigeria dates back when different sets of missionaries arrived in the country. These includes: The Catholic Nuns, Miss. Blackwell, Miss. Gladys Plumer, Miss. Baker and Mrs. E. Richard, Mrs. Johnstone and Mary Slessor. The subjects was formerly known as domestic science and later home economics in Nigeria.

REFERENCE

Asuquor, E.E (2005). Fundamentals of Vocational and Technical Education. Smith standard Nigeria Ltd. Kano.

Okoro, O.M (2003). Principles and methods in Vocational Education Nsukka. University Trust publishers.

UNIT 7: CAREERS IN HOME ECONOMICS

INTRODUCTION

Home Economics is a promising discipline, with many specializations through which one can be self employed or be employed. The following are some careers in home economics, teaching, dietician, extension science, social welfare, community nutrition, business and industry fashion illustrator, interior designing, home economics research and fashion designer.

OBJECTIVES

After studying this unit, you should be able to:

- i. Mention careers in Home Economics.
- ii. Describe careers in Home Economics.

HOW TO STUDY THIS UNIT

- i. Read through the unit carefully.
- ii. Note the careers in Home Economics.

WORD STUDY

1. **Dietician/institutional meal administration:** - The home economics graduates who major dietetics and/or institutional meal administration, secure positions as dieticians or food managers in colleges, hotels, clubs, catering houses, etc.
2. **Extension service:** - Home economics in agricultural and home economics extension service work with adults as home demonstrators and with adolescents in social clubs. They provide leadership and guidance for the development of programme dealing with family living.
3. **Fashion illustrator:** - There the home economist makes drawings that interprets the design for a pattern or fabric. The emphasis is the production of costume accurately with all the accessories to tempt people to purchase it.
4. **Interior designing:** - This involves selecting and organizing the furnishings in homes, offices and other public places planning environments where people live and work is also part of the job.
5. **Fashion designer:** - In which the home economist is involved with creating designs using

imaginative ideas. The job requires the designer to be able to predict fabric colour, silhouette that will be accepted at the time when the clothing article will be produced and worn.

ACTIVITY

1. Mention any five (5) career(s) in Home Economics.
2. Describe the career Fashion illustrator and Home economics extension service.

CAREERS IN HOME ECONOMICS

1. Teaching: - The largest group of home economists in Nigeria, as well as the world is made up of teachers employed in universities, colleges, secondary schools, adult education programmes, nursery schools and elementary schools.
2. Dietician/institutional meal administration: - The home economics graduates who majors in dietetics and/or institutional meal administration, secure positions as dieticians or food managers in colleges, hotels, clubs, catering houses, etc.
3. Extension service: - Home economics in agricultural and home economics extension service work with adults as home demonstrators and with adolescents in social clubs. They provide leadership and guidance for the development of programme dealing with family living.
4. Social welfare work: - The home economists who works in a social welfare department contributes to the programme of the agency by adapting to its needs which have some bearing with home and family living standards and levels of living as well as home and money management.
5. Community nutrition: - The home economists may be employed as nutritionist in public health agencies where she will work with physicians, nurses, dentists, social workers and community leaders.
6. Business and industry employ home economists to represent the home maker's point of view, to help in the development of commercial products. These activities include demonstrating foods, equipments, textiles and home furnishings, writing on home making subjects for newspapers or magazines, and presenting radio and television programmes.
7. Fashion illustrator: - There the home economist makes drawings that interprets the design for a pattern or fabric. The emphasis is the production of costume accurately with all the accessories to tempt people to purchase it.

8. Interior designing: - This involves selecting and organizing the furnishings in homes, offices and other public places planning environments where people live and work is also part of the job.
9. Home economics research: - In which the home economist is involved in carrying out researches in the areas of foods, nutrition, textiles and clothing, consumer education, household equipments, family relations and child development.
10. Fashion designer: - In which the home economist is involved with creating designs using imaginative ideas. The job requires the designer to be able to predict fabric colour, silhouette that will be accepted at the time when the clothing article will be produced and worn.

SUMMARY

Home Economics Education provides a wide range of opportunities for employment and self employment. A Home Economist who does not want to teach or go into the teaching profession can be employed as a dietician or an institutional meal manager in hospitals and hotels, colleges and clubs. She could also be a social welfare worker, community nutritionist or an employer of labour.

REFERENCE

Asuquor, E.E (2005). Fundamentals of Vocational and Technical Education. Smith standard Nigeria Ltd. Kano.

UNIT 8: CONTRIBUTIONS OF NIGERIAN HOME ECONOMISTS

INTRODUCTION

The efforts of missionaries and other workers earlier mentioned largely led to the rapid development of home economics and women education in Nigeria. One consequence of this rapid development of education and home economics was the increasing awareness of the importance of women education. This awareness therefore led to the significant increase in the number of educated Nigerian women, among the home economists.

OBJECTIVES

After studying this unit, you should be able to:

1. Mention decisions forwarded to the joint consultative committee education.
2. State the efforts of early Home Economics in Nigeria in promoting awareness of the programme.

HOW TO STUDY THIS UNIT

1. Read through the unit carefully.
2. Note the decisions and recommendations by the Nigerian home economics.

WORD STUDY/ACRONYM

J.C.C. – Joint Consultative Committee on Education. They are made up of members from Federal and State representatives of institutes of Education and other interested bodies.

ACTIVITY

1. Mention three (3) decisions forwarded to the joint consultative committee on education.
2. List three (3) recommendations of the joint consultative committee especially for girls.

CONTRIBUTIONS OF NIGERIAN HOME ECONOMISTS

The efforts of missionaries and other workers earlier mentioned largely led to the rapid development of home economics and women education in Nigeria. One consequence of this rapid development of education and home economics was the increasing awareness of the

importance of women education. This awareness therefore led to the significant increase in the number of educated Nigerian women, among the home economists.

Therefore, when a significant proportion of home economics women are produced, they will surely not sit down and fold their arms, rather they would strive to see that they continued from where the Europeans have stopped. That is what happened when Nigerian home economists began to think of coming together to see what they could do for the benefit of the study of home economics. Like their American counterparts when they started, as Nigerian home economists, they organized several meeting, seminars, work-shops and symposia in several places in Nigeria, but of greatest importance at that time were the national conferences held in Zaria in 1965 and 1970.

In those conferences, many speakers bore in their minds and made their feelings about home economics known. At the end of the conferences the communiqué showed that several decisions were taken. Projections were made and presented to the joint consultative committee on education, an organization set up by the government in 1955 to authorize course, the duration of the courses and the grade of salary should go to the graduates of such courses. The J.C.C. is usually composed of ministry representatives (Federal and State representatives of the institutes of education of the universities and the representatives of other interested bodies.

DECISIONS FORWARDED TO JCC

The conference decided that:

- a. The JCC should advise the National Manpower Board on the importance of home economics and so recommend that it be included in the priority list as an area requiring scholarship awards from the federal and states ministries of education and to encourage those interested to choose it as a career.
- b. The JCC should recommend to the various bodies to reserve a reasonable number of scholarships for home economics.
- c. The JCC should recommend that home economics be made available to girls and any others requiring it by: -
 - (i) Building home economics into the curriculum of primary schools.
 - (ii) Making home economics compulsory for secondary school girls in the first three years.

- (iii) Making funds available for home economics teachers.
- (iv) Agreeing that all teachers colleges with girls should have facilities for the teaching of home economics.
- (v) Agreeing to recommend improved condition of service for home economics.

Almost all these recommendations by the Nigerian home economics have been implemented. This is because home economics is taught at all levels of our educational systems, scholarships are given to home economists, and facilities have been provided for the teaching of home economics at all levels. In addition to all these successes, there is now functioning a national Nigerian Home Economics Teachers Association and each state of the federation is encourage to have its own secretariats. Meetings and conferences are held from time to time on a continuing basis and magazines and pamphlets are published for the dissemination of home economics news.

SUMMARY

The Nigerian Home Economists made efforts to create awareness of the importance of Home Economics Education in general and the importance of women education in particular. Several conference meetings, seminars, workshops and symposia were held to create this awareness.

REFERENCE

Okoro, O.M (2003). Principles and methods in Vocational Education Nsukka. University Trust publishers.

UNIT 9: THE QUALITIES AND ROLE OF THE HOME ECONOMICS TEACHER

INTRODUCTION

Home economics is a course of study which requires a special breed of teachers. It is special in the sense that, as a course of study that hinges on the welfare of the family, any of its good teachers must radiate those qualities that show that the teacher is a responsible person and a good family person as well.

OBJECTIVES

After studying this unit, you should be able to:

1. Mention the qualities of the home economics teacher.
2. Mention the roles of home economics teacher.

HOW TO STUDY THIS UNIT

1. Read through the unit carefully.
2. Note the qualities of the home economics teacher.

WORD STUDY

Character: the distinctive qualities of someone or something; moral strength.

Love: a beloved person or thing.

Discipline: controlled and obedient behavior; training and punishment producing this.

ACTIVITY

1. Mention five (5) qualities of a Home Economics Teacher.
2. Mention four (4) roles of Homes Economics Teacher.

QUALITIES OF HOME ECONOMICS TEACHER

Home economics is a course of study which requires a special breed of teachers. It is special in the sense that, as a course of study that hinges on the welfare of the family, any of its good teachers must radiate those qualities that show that the teacher is a responsible person and a

good family person as well. The following are the desirable qualities that good home economics teacher should possess: -

1. **Good character:** This enables the teacher to be of good influence to the pupils and students. Students, especially the young ones tend to copy some of the things their teacher does. With this situation in mind, a good home economics teacher should exhibit good character always so that her students will pick this good behaviors. This is important because her students are potential mothers and family persons whose good character must radiate and influence to a large degree the people who will be members of her household sometime after.
2. **Ability to love:** A good home economics teacher must love her students and cultivate special friendships with them. Her students will in turn like her, do whatever she tells them to do (which are numerous in home economics) and help her to achieve vital class control. The good teacher will do everything in her power to cultivate a pleasant, friendly and helpful approach in dealing with her students.
3. **Ability to continue to learn:** This teacher who has lost interest in her ability to continue to learn will find that she will, sooner or later be obsolete in her teaching methods and materials. Therefore, a good home economics teacher must possess the ability to learn, especially as the course is the type where a lot of research provides innovations at a very fast pace.
4. **Ability to be adaptable:** Perhaps, no other area of study requires a high degree of adaptability as the area of home economics. This because it is branch of study that require plenty of experimentation and innovation and therefore requires that its teacher be highly adaptable to be able to introduce new ideas into her store of knowledge.
5. **Possess a clear knowledge of her students:** A good home economics teacher must possess a clear knowledge of her pupils. She must know them and they must know her. By such practice, she will be encouraging classroom decorum and orderliness.
6. **Ability to maintain class discipline:** A good home economics teacher must possess the ability to maintain class discipline at all times. Discipline, she must understand can be of various types. A successful home economics teacher is a good disciplinarian because she can control her class without letting them know or realize it, as all the children are co-operating for the good of all and are so interested in what is going on that formal discipline is forgotten. The home economics teacher can do this if she:
 - Prepare her lesson thoroughly always

- Introduces variety and avoids monotony in her lesson
 - Watches those in class and reads sign of inattention
 - Avoids threatening her students
 - Praise worthy behavior
 - Is fair to all at all times
 - Cultivates a pleasant, friendly, helpful approach in her dealings.
7. **The human teacher:** Humaneness is a quality that every home economics teacher must strive to cultivate. The necessity for the humane home economics teacher is obvious. A very successful home economist who has chosen teaching as her career must have empathy for her students, value them as unique individuals and be secure enough to be herself without ‘impersonating’ her role. The atmosphere in her classroom will make it possible for her and her students have joy, excitement and closeness absent from many classrooms.
 8. **Attitude towards peers and parents:** The teacher is not isolated in the classroom, she interacts daily with fellow teachers, administrators and other school personnel, and must often have very sensitive dealings with parents.
 9. **Competition:** Some teachers develop a strong drive to compete with other teacher for recognition from both authority and student. They strive to have the best lesson plans, to be the most popular teacher, or to maintain the friendliest relationship with the administration. Such person are striving to be recognized and rewarded. As a result of this altitude, they cut themselves off from much needed help and severely limit their ability to be help to others. They are unable to recognize the need for cooperation and sharing of ideas for the benefit of both staff and students. Good home economics teachers are not given to this kind of temptation.
 10. **Superiority and prejudice:** One attitude that never fails to cause trouble for teachers and to parents of students. They may feel intellectual superior to the colleagues, or socially superior to some parents, or both. Some teachers simply have little tolerance for people who differ from them in values and cultural background and as a result, treat other with disdain and contempt rather than with patience and respect. Good home economics teachers are not imbued with such attitudes.
 11. **Attitude towards subject-matter:** Whatever subject a good home economics teachers, she feel enthusiastic for it. The good home economics teacher has the greatest need to like the subject she teaches. This is because without showing enthusiasm for the work, students easily detect from the numerous mistakes that follow the handling of equipment.

THE ROLES OF HOME ECONOMICS TEACHERS

1. Problem solver: - This is a primary aspect of the role of the teacher. Home economics teacher is constantly required to make diagnosis and decisions about problems related to learning and to human relations.
2. In small colleges, a home economics teacher can assume an added responsibility of supervising study halls, or she may be asked to take care of feeding programs.
3. She can serve as a consultant to primary school teachers as they prepare simple nutrition units.
4. She may be a consultant of voluntary organizations that try to improve family life and help to create an understanding of the proper role of the family as a basically functional unit.
5. Organizing the educational process in home economics. She directs home economics learning activities in the classroom.
6. She acts as a counselor of the students requiring special help in terms of career expectations.
7. Another role of the home economics teacher is to help provide leadership in the growth of the profession of home economics in general and help students to find satisfaction in the profession.

SUMMARY

Home Economics is a broad discipline which requires a special breed of teachers. Every home economics teacher must possess some desirable qualities and perform his/her roles properly as a teacher in schools, and communities. The home economics teacher must have some of these good virtues which include good character, ability to love, ability to continue to learn, ability to be adaptable, ability to maintain class discipline, the human teacher, competition. He must be a problem solver, a consultant, among others.

REFERENCE

Okoro, O.M (2003). Principles and methods in Vocational Education Nsukka. University Trust publishers.

UNIT 10: RELATIONSHIP AMONG THE HOME ECONOMICS TEACHER, OTHER COLLEGE STAFF AND THE COMMUNITY

INTRODUCTION

A successful teacher of home economics should therefore be able to initiate and maintain good relationships with others. She should be able to adjust herself to the needs and interest of others and make allowances for individual differences. She is also part of the community in which she lives and works. She needs to make a careful study of her surroundings and acquaint herself with the various aspects of life in her society.

OBJECTIVES

After studying this unit, you should be able to:

- i. Identify characteristics of the home economics teacher with other college staff and her community.
- ii. Relate the characteristics with college staff, students and community.

HOW TO STUDY THIS UNIT

1. Read through the unit carefully.
2. Note the characteristics of relationship of the home economics teacher with other college staff.

WORD STUDY

1. **Courteous** – having good manners and respect for others.
2. **Groomed** – prepared for an important job or position in society by training over a long period.

ACTIVITY

1. Mention the characteristics of the relationship of between home economics teacher and other college staff.
2. Mention the characteristics of the relationship between Home Economics Teacher and the Community.

RELATIONSHIP OF THE HOME ECONOMICS TEACHER WITH OTHER COLLEGE STAFF

A successful teacher of home economics should be able to initiate and maintain good relationships with others. She should be able to adjust herself to the needs and interest of others and make allowances for individual differences in general, she should: -

- a) Show a genuine interest in people and their welfare
- b) Be courteous, kind, tactful and understanding
- c) Be tolerant of the opinions, likes and dislikes of others
- d) Be open-minded in matters under consideration
- e) Be well groomed

She must remember that she is part of a team whose common goals are the welfare of the students and the good of the total school programme, hence, the need to work well with the principal and other staff members.

The teacher should be free to discuss her work with the principal. The home economics teacher should participate in school affairs not connected with teaching, and she should contribute whenever she can to the overall school programme for which the principal is responsible.

The home economics teacher should show a sincere but reserved interest in the welfare of other staff members. In order to help create the desired interest in the welfare of other staff members. In order to help create the desired relationship between her and others, she should refrain from destructive criticism of other members of staff.

STUDENT/TEACHER RELATIONSHIP

If the home economics teacher is to achieve the goals of the programme, she needs to maintain a cordial relationship with her students. Students should be at ease with their teacher, and feel free to discuss their problems, since a good classroom atmosphere is essential for effective learning. The teacher should show interest in her students as individuals. She should be co-operative, helpful, honest and impartial and have a thorough knowledge of the subject matter in order to command the unqualified respect of her students.

RELATIONSHIP WITH COMMUNITY

The Home Economics Teacher needs to establish a cordial relationship with her community because the pattern of a home and the community life of a people.

The home economics teacher needs to be familiar with some civic leaders; women who are active in various organizations like the parent/teachers association and women's clubs. The community will feel that the teacher considers herself part of them if she is affiliated with one or more of the community organization, and will be motivated to help and communicate with her when they realize that she is genuinely interested in community problems.

The home economics teacher can do much to help reduce the migration of youngster to the urban areas by improving the quality of life for the rural families. The home economics teacher could work with the community leaders to form co-operative bodies who will in turn, with the assistance of the government, form same scale industries.

Through direct contact with the community, a tactful and friendly teacher can learn much about what parents want and expect their children to learn in home making, the responsibilities of children are given at home, and the vocational plans being made for them, as well as the type of relationship existing between students and parents.

SUMMARY

A successful Home Economics Teacher is a person who has the ability to initiate, maintain good relationship with others in the school environment and community. A home economics teacher should be well groomed, show a genuine interest in people and their affairs, be courteous, kind, tactful and understanding, to tolerant and open-minded in matters. She is expected to maintain cordial relationship with her students for effective learning.

REFERENCE

Asuquor, E.E (2005). Fundamentals of Vocational and Technical Education. Smith standard Nigeria Ltd. Kano.

Okoro, O.M (2003). Principles and methods in Vocational Education Nsukka. University Trust publishers.

MODULE 2: INTRODUCTION TO TEXTILE SCIENCE

UNIT 1: INTRODUCTION TO TEXTILE SCIENCE CONCEPTS

DEFINITION:- Textiles are raw materials used in making household articles such as bedsheets, window blinds, cushion covers, chair back rest, curtains, carpets, etc.

OBJECTIVES

After studying this unit, you should be able to:

1. State the two classes or groups of textile fibres.
2. Mention three basic fabrics.
3. List three fabric decoration methods.

HOW TO STUDY THIS UNIT

1. Read through this unit carefully.
2. Note the different characteristics of fibres.
3. Note the fabric construction techniques.

WORD STUDY

- Fibres:** These are small hairs which are the smallest bits of textile materials. It is a unit of matter characterized by flexibility, fineness and a high ratio of length to thickness.
- Yarns:** They are strands of fibres which have been conditioned or processed in such a way that they are suitable for weaving, knitting, crocheting, etc. They are threads which have been spun and used in construction of fabrics and other household articles.
- Filament fibres:** These are fibres of continuous length. That is, it is long enough to be used in fabric construction without increasing the length by twisting other fibres onto it.
- Staple fibres:** These are short fibres that are measured in inches or fractions. They are fibres of limited length.

- v. **Fineness:** It is the fundamental property which governs the use of which a fibre can be put.
This tells how close or coarse a fibre is.
- vi. **Elasticity:** This describes the tendency a fibre can stretch and still recover its normal shape.
- vii. **Moisture Absorption:** It describes the amount of water which a fibre can absorb when wet.
- viii. **Drying Rate:** This simply means the length of time a fibre can take to dry when wet.
- ix. **Lustre:** This simply means the way which light reflects on the surface of the material when the surface comes in contact with light. That is, the way it shines when light reflects on the material, fibre or cloth.
- x. **Abrasion Resistant:** This describes how the fibres/fabric can resist to wearing out or tear.
This is because while in use, the fabric became abraded by rubbing against the body, chair and other objects with which they come in contact with.

WHY DO WE STUDY TEXTILE

Textiles are fibres from which fabrics are made. They serve many purposes in the home. A knowledge of origin, manufacture, finishes and properties of fibres or fabrics used in everyday living is very important. The following are some of the reasons for studying textiles:

1. To enable one to treat them correctly during construction.
2. To know the most suitable use of each textile material.
3. To know how to clean them when they are dirty.
4. To know how to care for them and also to ensure durability in relation to price.
5. To help in the identification of the different fibres/fabrics in market based on their usage or performance.
6. To develop good buying motives of the individuals in the society.
7. To know texture and comfortability of the materials so as to know what to wear at a particular time.

ACTIVITY I

- a. List the two classes of Textile fibres.
- b. Define two key words used in textile laboratory or industries.

ACTIVITY II

- a. Define Textile.
- b. Mention four reasons why we study textile.

SUMMARY

Textiles are fibres from which fabrics are made. Textiles are raw materials used in making household articles such as bedsheets, window blinds cushion covers, chair back rest, curtains, carpets, etc.

We study because of the following reasons:

1. To enable one to treat them correctly during construction.
2. To know the most suitable was of each textile materials.
3. To know how to clean them when they are dirty.
4. To know how to care for them and also to ensure durability in relation to price.

REFERENCE

Nkeonye , P.O. (2009). Introductory Textiles for Home Economist, Student of Art and Beginners Generally S. Asekome and Co. Publishers, Nigeria.

UNIT 2: PHYSICAL AND CHEMICAL PROPERTIES OF EACH OF THE FIBRES

INTRODUCTION

Fibres can be classified by their physical and chemical properties.

OBJECTIVES:

After studying this unit you should be able to:

- (i) Mention the various types of fibres.
- (ii) State the physical and chemical properties of each fibres.

HOW TO STUDY THIS UNIT

- (i) Carefully read through the unit.
- (ii) Identify the different types of fibres.
- (iii) Note the c physical and chemical properties of each fibre.
- (iv) Note the substance or reagent that each fibre is resistant to.

WORD STUDY

(a) Cotton Fibre

This is obtained from cotton plant, which is cultivated in many countries.

(b) Linen Fibre

This is a long fibre formed inside the stem of the flax plant.

(c) Wool Fibre

It is obtained from sheep, that is the fleece or hair of sheep, alpacas and vicuna, goats, camels.

(d) Silk Fibre

This is obtained from a plantation of mulberry trees hatching and reeling sheds.

(e) Nylon Fibre

This was first originally made in U.S.A., it is entirely from chemical source. The raw materials used in the production of nylon are coal, air and water.

(f) Rayon

This made from vegetable source of cellulose treated with chemicals to produce a sticky liquid which solidifies into filament yarns.

ACTIVITY

Give brief answers to the following questions:

1. Mention the various types of fibre mentioned in this unit.
2. List the three chemical properties and three physical properties of the following fibre
(a) Cotton (b) Silk (c) Rayon

COTTON FIBRE (VEGETABLE FIBRE)

Cotton fibre is obtained from cotton plant which is cultivated in many countries of the tropical parts of the world such as Nigeria, West Indies, Part of North and South America and India. The cotton plant is an annual plant, it bears pink or white flowers and the fruits produced from these flowers are pods or bolls. As these bolls ripen, the white fluffy mass bursts out of the bolls. Fibres which surround the seeds of the cotton plant are gathered after the cotton boll or seed pod had burst. The length and fineness of fibres vary according to where the cotton is grown.

Physical properties of cotton fibre

1. It absorbs moisture and evaporates quickly.
2. It is strong when dry but very strong when wet.
3. It is resistant to insects and high temperature.
4. It has little elasticity.
5. It is inflammable.
6. Cotton fabric wrinkle easily.
7. Cotton fabric gradually weaken when expose to too much sunlight and develop mildew under suitable conditions.

Chemical properties of cotton fibre

1. It has resistant to alkaline and it cannot be destroyed by local soap such as soda soap which contains plenty of alkaline.
2. Acid weaken and destroy cotton fabrics. So, when using acid or bleaches, rinse properly.
3. Prolong exposure to sunlight destroy cotton fabrics, fibres and change them to yellow.

LINEN FIBRE OR FLAX FIBRE

The long fibre formed inside the stem of the flax plant. The fibre is removed when ripen. It contains (i.e. the inner stalk) the bundles of fine flax fibres. Flax plant is grown in the rivers because of the chemical inside them which is suitable and also good for rotting flax to give quality fibres.

The greatest producers of the fibre are USSR, France, Holland, Ireland, Belgium and New Zealand. In South America, flax plant is grown for linseed oil used in the production of edible vegetable oil. Chemicals are also used in South America for rotting the flax to make it faster.

Physical properties of Linen Fibre

1. Linen fibre is firmer, more lustrous, absorbent, rigid and stronger than cotton fibre.
2. Stronger when wet than when dry.
3. It creases badly because it tends to be stiff but finishes improve the fibre.
4. It burns like paper but resists the heat of the iron.
5. It is attacked by mildew.

Chemical properties of Linen Fibre

1. It is more easily damaged by over-bleaching.
2. It is resistant to alkaline.
3. Concentrated acids destroy linen fibre.

CELLULOSE FIBRES:

JUTE

Jute fibre is obtained from jute plant. It is found in India which grows to a height of about 3.7 metres. This is got through extraction and the process resemble that of linen fibre, it is brownish in colour and has not been successfully bleached but it is lustrous and smooth. It is not durable as its deteriorate rapidly when it is exposed to moisture because jute fibre is affected by chemical (bleaches). It cannot be made pure white. It dissolved readily in concentrated mineral acids and it is weakened by salt water.

Jute is used as a binding thread for rugs, carpets, cushion and linoleum base. It is base made into coarse, cheap fabrics such as burlaps bags and ginny sacks.

HEMP FIBRE

Hemp fibre is obtained from tall plants with natural woody fibre. It is founded in USA, USSR and Poland. The properties and processing resemble that of linen fibre. It is mainly used in making ropes used for morning ships because it is not affected by salt water.

LEAF FIBRE (SISAL)

Sisal plant is found in Mexico and Africa. The processing of the sisal fibre can either be by retting or by beating the leaves to get the fibre. In retting, the leaves are allowed to stand in the water for some days. The fleshy parts of the leaves get rotten leaving the fibres. These fibres are used for making mats, hand bags and ropes.

PINEAPPLE FIBRE

Pineapple plant used for fibre us found in Philipines. Philipines is the greatest producer. It is processed in the same way like sisal. The fibre is very shine, soft, flexible and strong. It is used for making foot mates.

COCONUT FIBRE

Philipines is the greatest producers of coconut plant used for coconut fibres. It is used for mats and cordage (rope) and also for making foot mats.

WOOL FIBRE (ANIMAL OR PROTEIN FIBRE)

Wool is obtained from sheep i.e. the fleece or hair of sheep, alpacas and vicuna, goats, camels, etc. The length and quality of the fibre is governed by the breed of the animal. This is associated with the location of its natural home. Countries which produced raw wool are: New Zealand, South Africa and Austrialia. The best type of wool is known as Merino wool and it is very soft and fine. Merino sheep are of Spanish breed. The type of wool produced in India is coarse and it is only suitable for making carpets.

Physical Properties of Wool Fibre

1. The fibre shows some scales.

2. Wool is a weak fibre, strong when dry than when wet.
3. Wool has high crease resistance and the moisture absorption is good.
4. Wool is affected by high heat and burns in flame with smell like that of burning hair.

Chemical Properties of Wool Fibre

1. Alkaline damage wool.
2. It is resistant to wool.
3. Over exposure to sunlight or heat spoils the wool fibre.
4. Wool fibre is resistant to bacteria and mildew.

SILK FIBRE (PROTEIN FIBRE)

A silk farm bears no resemblance to a sheep farm. In case of silk farm, plantation of mulberry trees hatching and reeling sheds are made for the production of silk. The cultivation of the silkworm begins as soon as the leaves begin to appear on the mulberry trees. Eggs laid by a moth are stored during the winter and spread out on trays to hatch in a warm shed. When the worm is fully grown, it starts spinning its cocoon on the straw placed on the trays. The silkworm fluids from the special glands issued or secreted from the two holes, one on either side of the head called spinnerets. The fluid hardens as it comes in contact with the air and the long fibres (continuous filament) which may be up to a mile in length are struck together with silk gum from another gland.

Silk is known as the “Queen of Fibres” because it has maintained a position of prestige and it is considered to be luxury fine. Another reason why it was called “Queen and Kings” as a “Legal Fabric”, silk required plenty of care and it is beautiful too when seen. The producers of silk fibres are divided into two. Namely:

- i. Greatest producer of silk fibre for Sericulture are: China, Japan, India and Italy.
- ii. Greatest producer of silk fibre for fabric is: Lyon in France.

Physical Properties of Silk Fibre

1. They are smooth and lustrous.
2. They are long filaments.
3. They are strong and one of best fibre used in making fabrics.
4. They have good elasticity and also good absorbency of moisture.

5. They burn and give off smells like burning hair.
6. They are affected by heat.

Chemical Properties of Silk Fibre

1. It is damaged by strong alkaline but weak alkaline as in soap caused little damage to silk fibre.
2. Acids destroy silk fibre.
3. It is resistant to mildew, bacteria and other fungi.

MAN-MADE FIBRE

Man-made fibres are fibres made by man. They are made of vegetable source (cellulose) and chemical source (petroleum, coal and air). They are easy living fibres because they make life easier as a result of the following:

- i. For many of them, ironing is not necessary and the time required for washing and ironing is reduced.
- ii. Some of them are light weight. So, they reduce the luggage of the traveler.
- iii. They are strong fibres. This makes them possible for wearing by the users.

RAYON

This made from vegetable source of cellulose treated with chemicals to produce a sticky liquid which solidified into filaments yarns. These are manufactured to look like silk. Synthetic fibres or man-made fibres are made of many substances such as wood pulp, cotton linters, coal, petroleum, etc. The substance is treated with chemicals or heated, so that a sticky fluid is produced. This is then forced through a spinneret with several holes. The streams of liquid are passed through a cold water bath in which they are hardened into fine threads, a number of which are twisted to form the yarn. Two kinds of yarns can be made from synthetic fibres:

- a. Continuous filament yarn.
- b. Staple yarn.

Physical Properties of Rayon Fibre

Although rayon fibre resemble silk fibre in appearance. Its physical properties are different from that of silk fibre.

Some of its properties are: -

1. Rayon is absorbent.
2. Rayon is flammable and not very elastic.
3. Fabric creases and gradually rotten by sunlight.
4. It is attack by mildew.
5. Rayon fibre is lustrous, lower abrasion resistance and increase in strength when dry.
6. They reduce strength when wet and greater when dry.

Chemical Properties of Rayon Fibre

1. It is weakened by acids and bleaches when it is not rinse out properly.
2. It is not quite resistance to alkaline like cotton fibre.
3. It is destroy by prolong exposure to sunlight and changes the colour of the fibre.

NYLON FIBRE

Nylon fibre was the first originally made in USA entirely from chemical source. The raw materials used in the production of nylon are coal, air and water. This goes through several chemical changes to produce a nylon salt used in the production. This is in turn converted into Nylon Polymer which looks like cloudy white substance resembling chips of marble. The polymer chips are fed into a hopper from where they are passed into a heating system which reduces them to a molten state. This fluid (molten solution) is forced out through the spinneret. The resulting filaments are cooled by the current of air. The fibres are then “cold drawn”. That is, they are stretched out to four times their original length, giving the yarn a certain amount of elastic and increased length. The resulting thread is wounded on the spools, ready for weaving or dyeing.

Physical Properties of Nylon Fibre

1. Nylon fibre is very strong but light in weight.
2. The filament is elastic and resilient.

3. It can be stretch and return to its original length.
4. It dries quickly, even under the room temperature and requires no ironing.
5. It is not attacked by moth or mildew.

Chemical Properties of Nylon Fibre

1. It is easily damaged by acids and bleaching agents but it is not harm by alkaline solution.
2. It melts easily if heated strongly. So very cool iron should be used if and when necessary.
3. Nylon rots after long exposure to sunlight. Therefore, it is not suitable for curtains.

UNIT 3: CONSTRUCTION OF FABRIC WOVEN AND NON-WOVEN; USE OF THE LOOM

INTRODUCTION

Textile manufacture is the oldest widespread industry in this country. Before the advent of the European woven fabrics, our people made their own clothes. Weaving of these clothes were worked in the farms. The women's loom is quite different from the men's loom. Most of the fabrics used now, are manufactured in this country using the locally grown cotton fibre.

OBJECTIVES

After studying this unit, you should be able to

1. Draw and explain different part of a loom.
2. Mention different types of weaves.
3. Differentiate between woven fabric and non-woven fabric.
4. State the use of the loom.

HOW TO STUDY THIS UNIT

1. Read through this unit carefully.
2. Note the different types of weaves.
3. Note the different part of weave

WORD STUDY

1. WEAVING

This is the crossing at the right angles the yarns to produce a fabric.

2. LOOM

This is a locally made machine used in weaving of yarn into fabric s.

3. WARPING

This is the process by which the warp yarn from the weaver's beam are drawn forward through the heddle made with thread and through the dents of harness.

4. NON-WOVEN FABRICS

These are fabrics made directly from loose fibres. The various forms are felts and bonded fabrics.

5. PLAIN WEAVE

This is the simplest weave. The structure resembles darn. It has various forms baskets, rib weave, twill weave, satin weave, pile weave, leno weave and knitted fabric.

ACTIVITY I

1. Mention the different parts of a loom.
2. List the different types of weaves.

ACTIVITY II

1. Define woven and non-woven fabric and differentiate between them.
2. Mention the uses of loom in weaving construction.

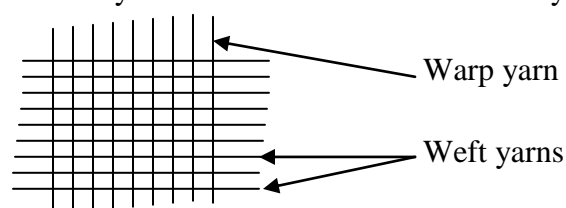
CONSTRUCTION OF FABRIC

Textile manufacture is the oldest widespread industry in this country. Before the advent of the European woven fabrics, our people made their own clothes. Weaving of these clothes were worked in the farms. The women's loom is quite different from the men's loom. The former (women's loom) is hand operated while the latter (men's loom) is hand and by operated. Most of the fabrics used now, are manufactured in this country using the locally grown cotton fibre.

Mechanization has not changed the principle of weaving. However, local craftsmen still prefer the hand weaving fabrics than the modern ones.

WEAVING

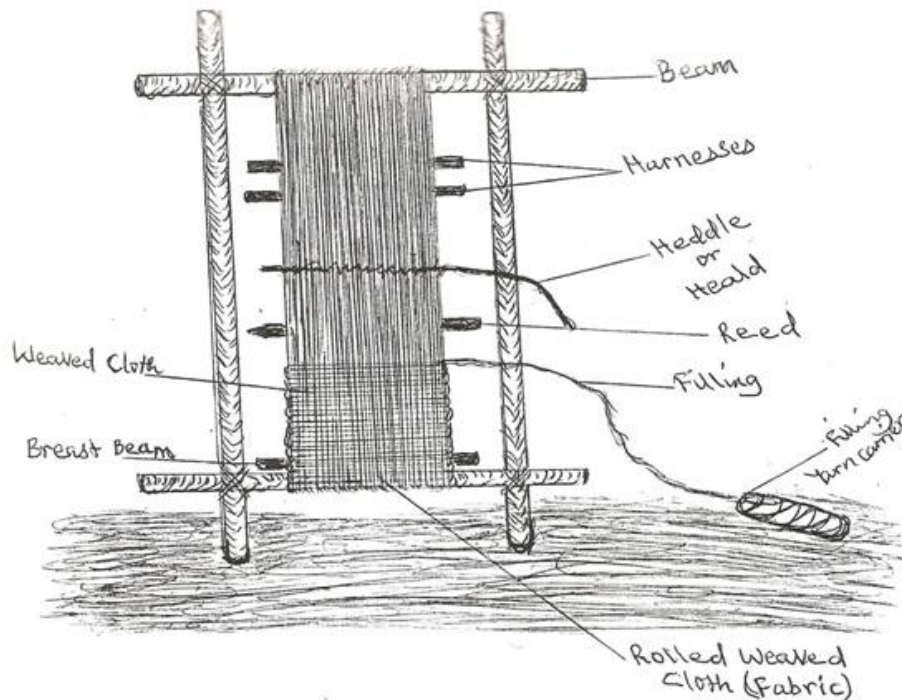
Weaving is the crossing at the right angles of the yarns to produce a fabric. Warp and weft yarns interlaced at the right angles. The interlacing can be done in different ways to give variety to the appearance of the finished fabric. It can be done manually on a hand loom or mechanically as in textile industry. In a loom, the vertical yarns are called warps while the horizontal yarns are called wefts. Fabrics are traditionally woven on the hand loom in many parts of Nigeria. E.g.



LOOM

This is a locally made machine used in weaving of yarn into fabrics. The local machine is assembled by placing one on top of the other to form the local loom used for weaving the fabric.

WEAVING LOOM



WARPING

Warping is the process by which the warp yarns from the weaver's beam are drawn forward through the heddle made with thread and through the dents of harness. The dents are spaces between the threads. The threads are picked one after the other until the weaver finish the picking which is the final preparatory process for weaving. The weaver insert the reed and then the breast beam for the stability of the weft threads when weaving is in progress. Finally, the weaver starts the weaving.

TYPES OF WEAVES

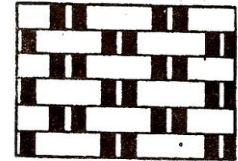
There are three types of weaves i.e. there are types of fundamental weaves which all other weaves are based. These are:

1. Plain Weave: This is the simplest weave. The structure resembles darn. The weft passes over one warp and the next alternatively across the fabric and over the next alternatively. The third row repeats the first row. A large proportion of woven fabrics have their weaves based on this type. Strong and durable, if properly or closely woven because of the maximum interlacing.



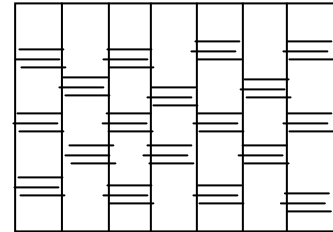
Some of the modification of plain weaves are as follows:

- a. Basket Weave: This is a variation of plain weave. One or more wefts passed alternatively over and under two or more warps. Designs resemble the pattern of a basket. It has a woven structure.



- b. Rib Weave: This is another variation of plain weave. Ribbed weave or corded effect is obtained by using weft much heavier than warps or vice-versa.

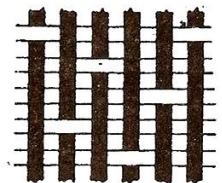
Rib weave



2. Twill Weave: Twill weaves shows diagonal all across the fabric. The twill or diagonal may run from left to right. In the simplest twill, the weft passes two warps and under one alternatively. In each row one or two yarns are skipped and then the weft proceeds as previously.



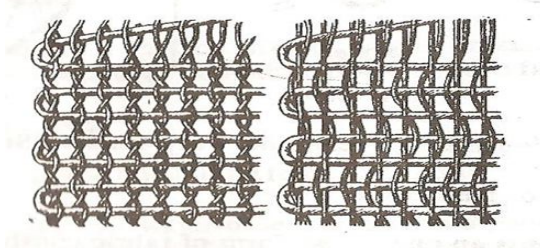
3. Satin Weave: The warps of the weave pass over a number of wefts and under one alternatively, so that the warps float are the surface along the left of the fabric. The weft yarns are hardly noticeable. Some heavy coatings with different colours or weaves on the surface and back. Some furnishings and blankets are made in this reins form.



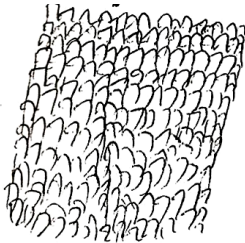
4. Pile Weave: Pile weave have the foundation of backing cloth or twill weave into which a third yarn has been woven to yield a surface pile. The pile may be a warp or a weft pile. Also the pile may be cut or uncut.

5. Leno Weave (Gauze): This gives a lacy, open effect allowing the light to pass through the weave. Leno weave has two set of warps twisted like a figure “8”, the weft being short, through each loop to keep the warps from untwisting and gives strength upon the construction. E.g.

leno weave



6. Knitted Fabric: A knitted weave is a fabric produced by the process of knitting using two long pins. Knitting is a method of fabric construction in which the yarn is formed into loops are connected together.



Knitted fabric

NON-WOVEN FABRICS

Non-woven fabrics are fabrics made directly from loose fibres. The main attraction for non-woven which originated directly from raw materials that saves the finance cost of processing. (i.e. elimination of the spinning and weaving production stages which are vital for woven fabrics.

Another attractive aspect of making fabrics directly from raw fibres is the possibility of making cheap fabrics from waste fibres unsuitable for normal spinning. These attractions stimulated the development of processed for the manufacture of non-woven fabrics. E.g.

- a. Felts: Felts are manufacture from animal hair such as wool, which have surface scale structure. When a mass of such fibres are subjected to the action of heat, moisture and varying pressures. The fibres became entangled at the scales. This depends on the duration of the treatment, then a compact mass of fabric is obtained. This process is called felting.
- b. Bonded-fabrics: These type of fabrics are produced by a process where fibres are pressed into thin sheets or webs that are held together by a plastic adhesive. The fibres common

in this type of process are rayon, cotton or polyester. Bonded fibre have a wide range of applications. These include interlinings (to enhance crease recovery and sharp retention) stiffeners, filter cloths, backing for coating fabrics, terminal insulation fabric, wall covering, shoe interlinings, polishing wiping cloths and table cloths. The relatively low cost of bonded fabrics also makes them attractive in the field of disposable products such as clinical sheets, surgical dressings, babies napkins covers (pampers) liners etc.

Uses of Loom in Weaving Construction

1. It is used in the construction of fabrics.
2. It is used in keeping the warp threads evenly spaced across the cloth.
3. It is used by the weaver to get the designs on fabrics during construction.
4. It is used by the weaver to get the exact length and width of the fabric.

SUMMARY

There are different types of fibres such as cotton fibre, linen fibre, wool fibre, silk fibre, nylon fibre and rayon. They have different physical and chemical properties based on their reaction to heat, touch, sunlight, insect, chemicals, water, etc.

Loom is a locally made machine used in weaving of yarn into fabrics. The local machine is assembled by placing one on top of the other to form the local loom used for weaving the fabric.

REFERENCE

Nkeonye , P.O. (2009). Introductory Textiles for Home Economist, Student of Art and Beginners Generally S. Asekome and Co. Publishers, Nigeria.

UNIT 4: FABRIC DECORATION METHODS (E.g. dyeing, batik, printing)

INTRODUCTION

Fabric decoration methods simply means the various ways one used in changing the colour of a fabric from its original colour to another colour and atimes the manufacturer may decide to add a design or designs to the original colour without changing the colour of the background.

OBJECTIVES

After studying this unit, you should be able to

1. State the methods of dyeing.
2. Mention the rules of dyeing.
3. List the procedure for dyeing.
4. Explain what is printing.

HOW TO STUDY THIS UNIT

1. Read through this unit carefully.
2. Note the different methods of dyeing.
3. Note the procedure for dyeing.

WORD STUDY

1. Fabric decoration methods:

This simply means the various ways one uses in changing the colour of a fabric from its original colour to another colour.

2. Dyeing

This is the art of changing the original colour of the fabric to another colour.

3. Tie and dye

This is the art of making designs and introducing colours onto the fabric different from its original colour.

4. Batik dyeing

This involves applying wax to the areas of a fabric that are not to be dyed. Then the whole fabric is dipped into the dye solution and later the wax is boiled off.

5. Printing

This is another way of colouring and decorating textile materials textile printing is the colouration of textile materials, where coloured patterns are introduced on the surface of the fabric.

ACTIVITY I

1. State the methods of dyeing.
2. List four (4) rules of dyeing.

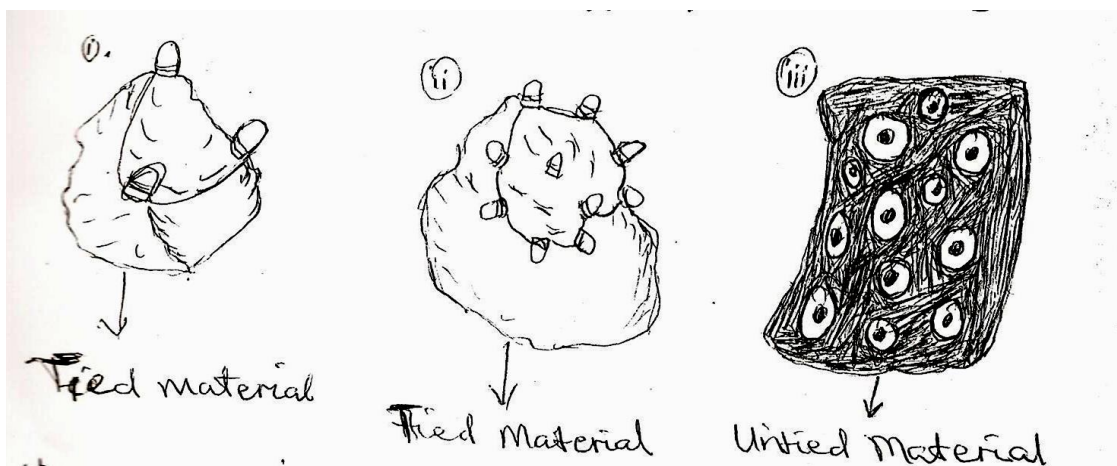
ACTIVITY II

1. Describe the procedure for dyeing.
2. Define printing.

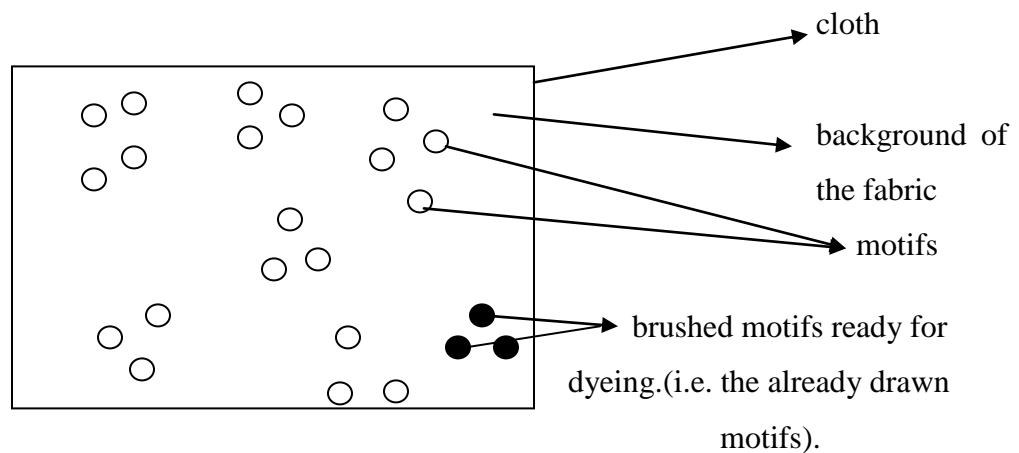
FABRIC DECORATION METHODS

Fabric decoration methods simply means the various ways one used in changing the colour of a fabric from its original colour to another colour and atimes the manufacturer may decided to add a design or designs to the original colour without changing the colour of the background. All these whether changing (i.e. dyeing or printing) on the material, is to make the fabric looks more attractive when seen by the buyers. Most methods used in fabric decoration are:

1. Dyeing: This is the art of changing the original colour of the fabric to another colour. With the method, there are various ways or methods one can used to dye the cloths. Sample of these methods are:
 - (a) Tie and dye: This is the art of making designs and introducing colour or white patterns on the cloth by dying it with string to restricts the dye not to enter some parts of the cloth before immersing it in the dye bath containing the dye solution. The dye is absorbed in all parts of the cloth except the tied areas. So, a patterned fabric results. This is seen by untying the dyed material (cloth), rinsed in water and dry. It is the colouration of the fabric to make it beautiful than ever. E.g.



(b) Batik or Wax Dyeing: This is a method called resist technique, a method where some portions of the fabric is prepared to resist the dye when the dye is applied. In tie and dye, certain parts of the cloth are knotted in such a way that the dye cannot penetrate into these parts when the material or cloth is dyed but in batik dyeing, candle (wax) is melted and brushed on the designed areas (motifs) so that these areas resist the dye when dyeing. This is done by drawing the motifs (designs) on the areas the dyer wants the design to appear at the end of the dyeing. With this method, only the unresisted areas absorb the dye there by giving rise to a patterned fabric (cloth/material). E.g.



The fabric is then removed from the dye, squeezed out the water solution, rinsed, allowed to dry and later the wax is removed. The wax could be removed either through boiled water process and the fabric is submerged (dipped) into it. Another method of removing the wax is by pressing the fabric with a very hot iron. In this process (i.e. pressing with a very hot iron), the fabric is put between sheets of absorbent paper (newspapers) and pressed with the very hot iron so that the wax melts and runs into the paper which absorbs the wax. This method is applicable to only batik

method of dyeing fabrics which results in two colour design after dyeing consisting of the dye applied and the resisted areas of the fabric where the dye did not enter. This makes the design to be very beautiful when the dyeing is completed and the dyer is seeing the result.

General Rules for Dyeing

There are guiding rules to follow when dyeing and these are:

1. Wearing overall or apron and rubber hand gloves on your hands to prevent them from chemicals used.
2. If rubber hand gloves are not available, use wooden washing tongs, old plastic spoons or plastic stick for lifting the fabric out of the dye.
3. Put newspapers around the whole area where the dyeing takes place on the floor and around the sink.
4. Keep dye away from light and keep in a dark cupboard, when it is not in use.
5. Never put wet or damp spoons into a jar of dry dye powder.
6. Never put spoons that have been in other colour of a dye or without washing and dry first before using it in another dye jar.

Materials/Equipment Needed When Dyeing

- i. A small bowl or bucket (all should be plastic) for dissolving the dye.
- ii. Dye powder.
- iii. A stirring plastic stick or wooden stick which should be smooth and cannot give out any colour different from the dye.
- iv. Water (very hot boiling water for preparation of the dye solution and cold water for rinsing).
- v. Caustic soda
- vi. Hydrosulphide
- vii. Hand gloves
- viii. Candle wax

Standard Recipe for Dyeing

- i. One teaspoonful of dye.
- ii. One and half tablespoonfuls of caustic soda.

- iii. Two and half tablespoonfuls of hydrosulphide.
- iv. Three litres of very hot boiled water.

Procedure for Dyeing

- i. Dissolve the dye powder and other chemicals into solution in the dye bath.
- ii. Stir them together very well and leave for 5 minutes.
- iii. Wash the fabric to be dye with ordinary water to remove the excess starch if any from the fabric and squeeze out the water and air from the fabric (10minutes).
- iv. Dip the fabric into the dye solution and stir constantly for the first ten (10) minutes to allow even distribution of dye on the fabric.
- v. Leave the fabric in the dye solution at least for 45 minutes – an hour (45mins or 1hr).
- vi. Remove from the dye solution.
- vii. Squeeze out the dye solution and rinse in clean water.
- viii. Loose the knots and spread out on plywood or flat surface to dry. Then iron out the creases when the fabric dries but starching is optional.

2. PRINTING

Printing is a method of producing a coloured patterns or motifs on the surface of the fabric different from the original background. The same dyes may be used in the printing but the method of application is different from the dyeing methods. In this method, a screenframe is produced and stencil used in bringing out the design on the fabric. With this process, frame and screen of silk or nylon is blocked out in parts where colour is not wanted. The screen is then placed over the cloth, stretched out on a table and printing paste or ink is squeezed through the open parts of the silk or nylon. It is a very simple method in the sense that after the preparation of the frame or nylon, the motifs cut are placed on the frame. After this, ink or paste is apply and forced out of the screen with squeeze to print out the design on the fabric.

SUMMARY

Fabric decoration methods simply means the various ways one used in changing the colour of a fabric from its original colour to another colour and atimes the manufacturer may decided to add a design or designs to the original colour without changing the colour of the background.

General Rules for Dyeing

There are guiding rules to follow when dyeing and these are:

1. Wearing overall or apron and rubber hand gloves on your hands to prevent them from chemicals used.
2. If rubber hand gloves are not available, use wooden washing tongs, old plastic spoons or plastic stick for lifting the fabric out of the dye.
3. Put newspapers around the whole area where the dyeing takes place on the floor and around the sink.
4. Keep dye away from light and keep in a dark cupboard, when it is not in use.
5. Never put wet or damp spoons into a jar of dry dye powder.
6. Never put spoons that have been in other colour of a dye or without washing and dry first before using it in another dye jar.

REFERENCE

Nkeonye, P.O. (2009). Introductory Textiles for Home Economist, Student of Art and Beginners Generally S. Asekome and Co. Publishers, Nigeria.

UNIT 5: USE OF FABRICS

INTRODUCTION

Fabrics are useful in our day-to-day activities.

OBJECTIVE

After studying this units, you should be able to;

State the uses of fabrics.

HOW TO STUDY THIS UNIT

1. Read through this unit carefully.
2. Note the uses of fabrics.

WORD STUDY

Lining: the process of inserting an inner layer of fabric, fur, or other material.

Asbestos: soft fibrous mineral substance used to make fireproof material.

Fabric: refers to any material made through weaving, knitting, spreading, crocheting or bonding that may be used in production of further goods (garments, etc.).

ACTIVITY I

Mention four (4) uses of fabrics.

USES OF FABRICS (CLOTHS)

1. Fabrics are used for accessories e.g. interfacings, linings, trimmings, etc.
2. They are used for furnishing e.g. carpet, chair-covers and curtains.
3. They are used as household linen e.g. bed sheets, table cloths and towels.
4. They are used for personal clothing foundation garments, under-wears and outer-garments.

5. They are used for industrial materials e.g. hospital uses, machine padding, disposable garments used by the doctors, safety belts for planes and cars, bullet proof vests for hunters/soldiers, fire proofs, ceilings and asbestos.

SUMMARY

USES OF FABRICS ARE:

1. Fabrics are used for accessories e.g. interfacings, linings, trimmings, etc.
2. They are used for furnishing e.g. carpet, chair covers and curtains.
3. They are used as household linen e.g. bed sheets, table cloths and towels.
4. They are used for personal clothing foundation garments, under-wears and outer garments.

Reference

Corbman, B.P., 'Textiles: Fibre to Fabric', 6th Ed. (New York: McGraw-Hill, 1983).

<http://en.wikipedi.org/wiki/lining>

<http://en.wikipedi.org/wiki/textile>

UNIT 6: CLASSIFICATION AND PROPERTIES OF FIBRES

INTRODUCTION

Fabrics are manufactured for their different performance. For example, keeping the body warm, or cool, protection against rain, wind, identification or merely for adornment.

Textile fibres can be divided into two classes or groups: natural and man-made fibres.

OBJECTIVE

After studying this unit, you should be able to;

1. State the two classes of fibres.
2. Mention two examples of each class

HOW TO STUDY THIS UNIT

1. Read through this unit carefully.
2. Note the classification of fibres with examples.

WORD STUDY

1. Natural fibres

Natural fibres come from nature, that is plants, animals and mineral sources. They can be classified into vegetable (plant) fibres, protein (animal) fibres and mineral fibres.

2. Man-made fibres

These are artificial fibres gotten from chemicals or from cellulose treated with chemical or from metal. They can be classified as follows; synthetic (petroleum based), regenerated (cellulose base) and metal fibres.

3. Vegetable (plant) fibres

These are found in the cell walls of plants e.g. cotton, linen, jute, hemp, kapok and ramie.

4. Protein

These are produced by animals or insects e.g. wool, silk.

5. Mineral fibres

These are mined from certain types of rock e.g. Asbestos.

6. Synthetic (petroleum based) fibres

These are purely from chemicals such as petroleum produces e.g. polyester nylon, olefin, acrylic, modacrylic, aramid.

7. Regenerated (cellulose base)

These are made from cellulose treated with chemicals (acetic acid) e.g. cellulose acetate, diacetate, triacetate, viscose rayon, cupramonium rayon.

8. Metal fibres

These are from metal and mineral e.g. glass fibres, metallic fibres.

ACTIVITY I

1. Mention two classes of fibres.
2. List two (2) examples of vegetable and protein fibres.

ACTIVITY II

1. Mention three (3) classes of man-made fibres.
2. State two (2) examples of metal fibres.

CLASSIFICATION OF TEXTILE FIBRES

Fabrics are manufactured for their different performance. For example, keeping the body warm, or cool, protection against rain, wind, identification or merely for adornment. At the early stage of production, fabric could only be produced from natural fibres but with the knowledge of science and extensive research by fabric technologists and scientists, man-made fibres came into being to augment the shortage of natural fibres and reduce production expenses. Textile fibres can be divided into two classes or groups;

(a) Natural fibres; (i) Animal fibres: wool, silk, feather.

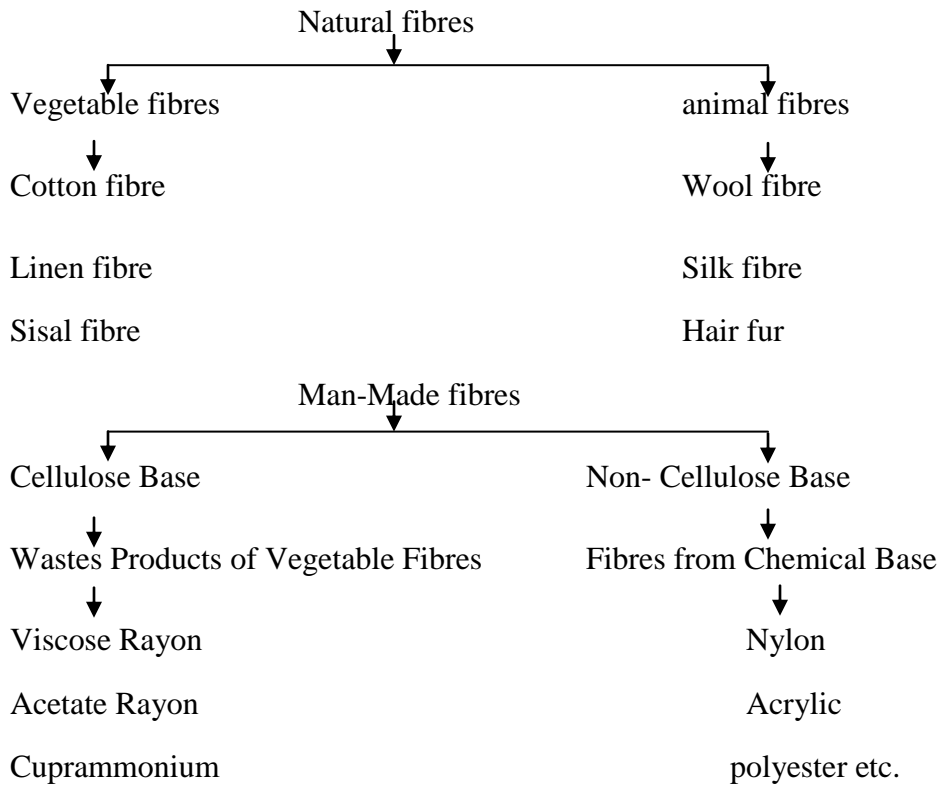
(ii) Vegetable fibres: cotton, linen.

(b) Man-made fibre: (i) Regenerated fibres from vegetable origin such as rayon, acetate, etc.

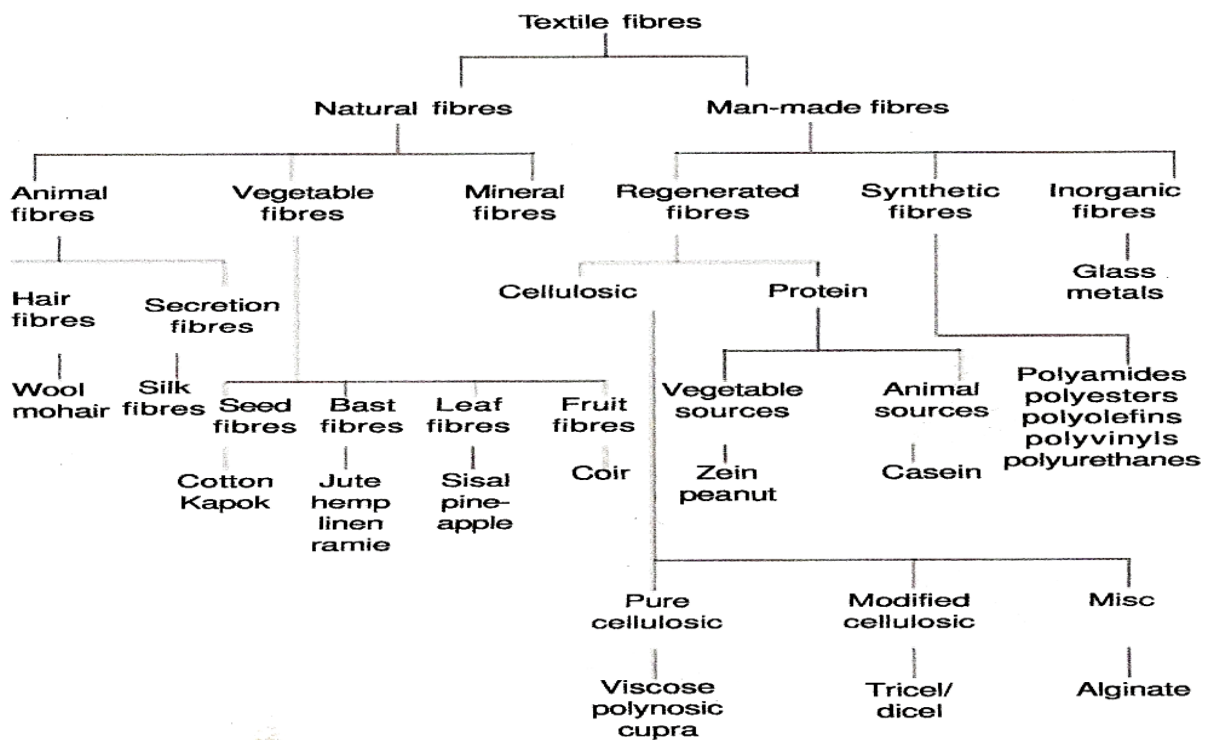
(ii) Chemicals source such as nylon, etc.

In some cases, these can be natural fibres which are obtained from natural sources either from plants or animals while man-made fibres or synthetic fibres are produced from natural waste

products such as cotton linters and wood pulp. Another man-made fibres are those of chemical sources such as petroleum, coal, air and water.



CLASSIFICATION OF TEXTILE FIBRES



SUMMARY

Fabrics are manufactured for their different performance. For example, keeping the body warm, or cool, protection against rain, wind, identification or merely for adornment.

Textile fibres can be divided into two classes or groups;

- (a) Natural fibres; (i) Animal fibres: wool, silk, feather.
 - (ii) Vegetable fibres: cotton, linen.
- (b) Man-made fibre: (i) Regenerated fibres from vegetable origin such as rayon, acetate, etc.
 - (ii) Chemicals source such as nylon, polyester, etc.

REFERENCE

Nkeonye , P.O. (2009). Introductory Textiles for Home Economist, Student of Art and Beginners Generally S. Asekome and Co. Publishers, Nigeria.

UNIT 7: FINISHES OF FIBRES AND FABRICS

INTRODUCTION

When fibres or fabrics have been made, several things were done to make it attractive and pleasing to the eye. The process through which the fibres and fabrics passed through before going to the shop to be sold to the consumers is called finishing and this is carried out in more than one ways.

OBJECTIVES

After studying the unit, you should be able to;

1. Mention different types of special finishes or treatment applied to fibres or fabrics.
2. State the processes to achieve finishing in fibres and fabrics..

HOW TO STUDY THIS UNIT

1. Read through this unit carefully.
2. Note the processes to achieve finishing in fibres and fabrics.
3. Note the special finishes or treatment applied to fibres or fabrics.

WORD STUDY

1. Purification

This is the first step in finishing of fibres or fabrics called purification process, which is the cleaning and bleaching of fibre or fabric to make them white.

2. Scouring

This is a process loosens the dirt, grease and other impurities so that, the fibres and fabrics can be washed easily.

3. Colouring

At this stage, the fibre or fabric is ready to be coloured to the desire of the producer. It can be dyed or printed on with motifs on the surface of the fabrics.

4. Lustre or sheen finishes

This gives a glossy surface to the fibre/fabric.

5. Mercerization

This is a special finish for cotton materials and it can be carried out when the cotton is in yarn form or after it has been woven into fabric.

6. Easy-care finishes

This gives the fibres or fabrics a drip-dry quality which help to cut down the wrinkleness of the fabric.

7. Shrink-resistant finishes

This controls the amount of shrinkage the fibre or fabric will undergo.

8. Water-repellant finishes

This is a fabric woven very close to cotton yarn. The fibres swell when they are wet, filling up the spaces between them and also makes the fabric water-proof.

9. Moth – proof

This is a chemical called mitin used to treat woven fabrics and make them moths proof as wollen fabrics are most likely attacked by moths.

10. Flame-resistant finishes

This is a finishes applied to fabric to prevent it from flaring and burning quickly. Cotton materials and some rayon fabrics are highly inflammable. Probe is chemical name used to make fabrics flame – resistance.

ACTIVITY I

1. List four (4) types of special finishes that can be applied to fibres or fabrics.
2. Describe two (2) processes of finishes in fibres and fabrics.

FINISHES OF FIBRES AND FABRICS

When fibres or fabrics have been made, several things were done to make it attractive and pleasing to the eye. The process through which the fibres and fabrics passed through before

going to the shop to be sold to the consumers is called finishing and this is carried out in more than one ways. These finishes include:

1. Purification: The first step in finishing of fibres or fabrics is the purification process which is the cleaning and bleaching them to make them white.
2. Scouring: This is a method or term given to the purifying process that loosens the dirt, grease and other impurities so that, the fibres and fabrics can be washed easily.
3. Colouring: After the fibres or fabrics have been purified, it is ready to be coloured according to desire of the producer. It can be dyed or printed on with motifs on the surface of the fabrics.

SPECIAL FINISHES OF FIBRES AND FABRICS

Special finishes are used on fibres and fabrics to make them to work more attractive and pleasing to the eye. Several things have to be done before the producer can achieve the attractive of the products. These are types of finishes or treatments applied to fibres or fabrics at some stages of their production to improve their qualities in different ways to meet the need of the consumers. Some of these special finishes include:

- a. Lustrous finishes: This gives a glossy surface to the fibre/fabric e.g.
 - i. Mercerization: This is a special finish for cotton materials and it can be carried out when the cotton is in yarn form or after it has been woven into fabric. It is the process of soaking cotton fibres or fabrics in a strong alkaline solution, such as caustic soda solution treatment. They become lustrous after washing, leaving sheen on the woven fabric. Cotton treated in this form is called mercerized cotton while the process of carrying it out is called mercerization.
 - ii. Easy-Care-Finishes: This gives the fibres or fabrics a drip-dry quality which helps to cut down the wrinkleness of the fabrics. Fibres or fabrics given easy-care finishes require little or no ironing.
 - iii. Shrink-Resistant Finishes: This controls the amount of shrinkage the fibres or fabric will undergo when washed. Several treatments can be used to prevent the shrinkage. The material is steamed, to close up the fibres, then the yarn is set by being pressed at a high temperature.
 - iv. Water-Repellent Finishes: The fabric is woven very closely from cotton yarn. The fibres swell when they are wet, filling up the spaces between them and also make the fabric

water-proof. In this case, the fabric is treated with wax to fill up the spaces and make the fabric non-porous.

- v. Moth-Proofing: A chemical called Mitin is used to treat woven fabrics and make them moths proof as woolen fabrics are most likely to be attacked by moths.
- vi. Flame-Resistant Finishes: The finishes is applied to the fabric to prevent it from flaring and burning quickly. Cotton materials and some rayon fabrics are highly inflammable. Probe is the proprietary name of the chemical used in making the fabrics to be flame-resistant. This chemical can also be applied to linen, cotton and rayon. It will not washout of the fabrics. It could be dry cleaned but boiling weaken the fabric as the bleaching will do in washing with hard water.

SUMMARY

When fibres or fabrics have been made, several things were done to make it attractive and pleasing to the eye. The process through which the fibres and fabrics passed through before going to the shop to be sold to the consumers is called finishing and this is carried out in more than one ways. These finishes include: purification, scouring and colouring.

Special finishes are used on fibres and fabrics to make them to work more attractive and pleasing to the eye. Some of these special finishes include mercerization, easy-care finishes, shrink-resistant finishes, water-repellant, etc.

REFERENCE

Nkeonye , P.O. (2009). Introductory Textiles for Home Economist, Student of Art and Beginners Generally S. Asekome and Co. Publishers, Nigeria.

UNIT 8: YARNS AND YARN TYPES

INTRODUCTION

A yarn is composed of fibres or filament fibres which are usually twisted together to form a strand suitable for weaving and knitting.

OBJECTIVES

After studying this unit, you should be able to:

1. Classify yarns according to their length, number and arrangement of their fibres or filaments.
2. Explain the construction of yarns and their uses.

HOW TO STUDY THIS UNIT

1. Read through this unit carefully.
2. Note the different types of yarns.

WORD STUDY

1. Length of fibres can be group into two;
 - (a) Filament yarns: These are made from silk or man-made filament fibres. They are smooth with no protruding fibres in them.
 - (b) Staple yarns: These are made from short fibres separated from filament fibres.
2. Number of filaments.

There are two types;

 - (a) Multifilament yarn: This is the usual yarn that contains many filaments.
 - (a) Monofilament yarn: This type of yarn that has only one filament, which may be very fine or thick.
3. Arrangement of fibres:

These are fibres arranged in yarns in a random fashion or none or less parallel.
4. Weaving yarns:

This is a term used in the construction of yarns, at this stage, selection of one kind of yarn for the warps which run lengthwise in the fabric are made.
5. Sewing threads for general use:

This produces good performance and long life, they are strong, smooth, elastic and resistant to abrasion, heat, light, shrinkage and chemicals.

ACTIVITY

1. Mention how yarns are classified according to their strength and number of filaments.
2. Explain the different uses of yarns.

YARNS AND YARN TYPES

The quality of a cloth that makes it suitable for different purposes and its performance in wear and cleaning cannot be grouped entirely from the knowledge of its fibres. A yarn is composed of fibres or filament fibres which are usually twisted together to form a strand suitable for weaving and knitting. Yarns are made in a wide range of thicknesses according to the purpose at which they are made of. They are twisted to hold the fibres together, to prevent their slipping apart and to give them strength.

YARN TYPES

There are many kinds of yarns and these are classified according to their length, number and arrangement of their fibres or filaments, their construction and uses. These include:

1. Lengths of fibres
 - (a) Filament yarns: - These are made from silk or man-made filament fibres. They are smooth with no protruding fibres into them. They are used for lustrous and sheer fabrics where warmth is not important.
 - (b) Staple yarns: - They are made from short fibres separated from filament fibres. They are fuzzy with protruding fibres, bulky, enclosing more air and they are used for heavier warm fabrics.
2. Number of filaments
 - (b) A multifilament yarn: This is the usual yarn that contains many filaments.
 - (c) A monofilament yarn: This type of yarn that has only one filament which may be very fine (in sheer hosiery and mirror nylon) or thick (in shoes, upholstery or accessories).
3. Arrangement of fibres

Fibres may be arranged in yarns in a random fashion or more or less parallel. Mark of differences are noticed in fabrics made with these types of yarn.

4. Construction of yarns

Yarns can be made from a single filament or number of filaments or staple fibres twisted together. This could be one, two or more twisted in one operation or more operations to give heavy and very strong yarn. Under this, novelty yarns are made which are used to give texture and to allow combinations of various colours of fibres and thickness. The other synthetic continuous filament yarns are treated to form durable loops, crimps or coils that have extra bulk without increasing the weight.

5. Yarns for different uses

- (a) Weaving yarns: At this stage, selection of one kind of yarn for the warps which run lengthwise in the fabric are made. Generally, they are suitable, smooth, compacted and uniform (unless novelty yarn), strong and a medium of high twist. The yarns that run across the cloth are known as the weft yarns. The shuttle or filling carrier picks it (weft yarns) through the warps during weaving. This is usually less compacted, smooth, strong and these have a lower twist. Novelty yarns are also used for special textures and designs.
- (b) Sewing threads for general use: For good performance and long life, they are strong, smooth, elastic and resistant to abrasion, heat, light, shrinkage and chemicals.

SUMMARY

A yarn is composed of fibres or filament fibres which are usually twisted together to form a strand suitable for weaving and knitting. Yarns are made in a wide range of thicknesses according to the purpose at which they are made of. They are twisted to hold the fibres together, to prevent their slipping apart and to give them strength.

There are many kinds of yarn and these are classified according to their length, number and arrangement of their fibres or filaments, their construction and uses.

REFERENCE

Nkeonye, P.O. (2009). Introductory Textiles for Home Economist, Student of Art and Beginners Generally S. Asekome and Co. Publishers, Nigeria.

UNIT 9: IDENTIFICATION OF FIBRES BY PHYSICAL CHEMICAL AND MICROSCOPIC TESTS

INTRODUCTION

Sometimes it becomes necessary to identify the particular fibre or fibres used in production of a yarn to permit dyeing, printing or for chemical finishing to be carried out successfully. The approach to fibre identification depends on whether the sample consists entirely one kind of fibre or a mixture of fibres. i.e. a blend.

OBJECTIVES

After studying this unit, you should be able to;

1. State different methods of fibre identification.
2. Differentiate between physical and chemical fibre in (3)

HOW TO STUDY THIS UNIT

1. Read through this unit carefully.
2. Note the different methods of fibre identification.

WORD STUDY

1. Microscopic Examination

This is a method of identification of fibre, whereby the longitudinal and cross views of the fibre is examined under a microscope.

2. Burning Test

This serves as a preliminary sorting test for homogeneous samples. It is not useful, if the sample consists of more than one type of fibre.

3. Solvent Solubility Test

This method involves the use of organic and in-organic solvents, such as sodium hydroxide, cold concentrated hydrochloric acid and cuprammonium hydroxide.

4. Staining Tests

This test is used to distinguish between cotton and viscose rayon. Before applying stain, the fibre should be thoroughly wet, washed free from any wetting agent and immersed in the stain for one minute at room temperature.

ACTIVITY

1. Mention the methods of fibres identification.
2. What is the colour of the following fibres, when burnt? Rayon fibre, cotton and linen.

METHOD OF IDENTIFICATION OF FIBRES

Sometimes it becomes necessary to identify the particular fibre or fibres used in production of a yarn to permit dyeing, printing or for chemical finishing to be carried out successfully. The approach to fibre identification depends on whether the sample consists entirely one kind of fibre or a mixture of fibres. i.e a blend (for blends quantitative analysis of the fibres used in the production may be necessary). If the sample is in fabric form, dissect threads or pull out threads from it, warp and weft ways and examine separately. For double or folded yarns, separated into single component and examine each in turn. Fibre identification may be carried out in the following ways: -

1. Microscopic Examination: - The longitudinal and cross views of these are examined under a microscope. All fibres have their distinguish features which if it is not sufficient for positive identification, it could be bracket into the correct fibre group. These features are:
 - (a) Scale margins: Animal fibre.
 - (b) Twist or convolutions, lumen and reversal zones: Cotton fibre.
 - (c) Bundle of fibre without cross-marking: Bast and leaf fibres.
 - (d) Smooth profile without scales or convolutions: Man-made fibres.
 - (e) Flat, ribbon-like profile: Metallic yarn.
 - (f) The microscopic examination reveals, if the sample is composed of one type of yarn (i.e. homogeneous) or of a mixture of fibre.
2. Burning Test: This serves as a preliminary sorting test for homogeneous samples. It is not useful, if the sample consists of more than one type of fibre. The presence of a finish on the sample can give misleading results.
3. Solvent Solubility Test: Textile fibres can be identified by their preferred solubility in solvents. Both organic and in-organic solvents are employed. E.g:
 - a. Sodium hydroxide at the boiling point dissolves wool but not silk, cotton or viscose rayon.

- b. Cold concentrated hydrochloric acid dissolves bomby silk but not tussah (wild silk) or cellulose fibres.
- c. Cuprammonium hydroxide at room temperature dissolves nylon or viscose rayon but not scoured cotton.
4. **Staining Test:** Staining tests are valuable when undyed and untreated fibres are available but they are of limited value when examining dyed fabrics and garments. The main use of stain test is to distinguish between cotton (bright blue) and viscose rayon (bright green). Before applying stain, the fibre should be thoroughly wet, washed free from any wetting agent and immersed in the stain for one minute (1 min) at room temperature. Then rinsed thoroughly in cold water, squeezed to remove excess water and examine. This test can be repeated in hot stain if necessary. The colour gives indicate the type of fibre present in the sample. See the table below:

	Fibre	Colour Obtained
1	Cotton	Pale purple
2	Mercerized cotton	Mauve
3	Wool	Yellow (bright)
4	Silk (natural)	Brown
5	Viscose rayon	Bright pink
6	Cellulose (acetate)	Greenish-yellow
7	Triacetate rayon	Off-white or slightly yellow
8	Nylon	Cream to yellow
9	Polyester	Cold: Very pale purple Boil: Pale Brown

IDENTIFICATION OF FIBRES

- COTTON FIBRE:** When burnt, cotton flares up with a yellow colour and smells like burnt paper, leaving behind a very little grey ash which look like wood ash. When examined under the microscope, cotton fibre is seen to be twisted two or three times to the left and two to more times to the right alternatively. For chemical identification, cotton fibre looks pale purple. This indicates that it is pure cotton fibre.
- LINEN FIBRE:** Linen fibre flares up with a yellow flame like cotton and leaves a grey ash with smells like wood ash when burnt. When seen under the microscope, line fibre is smooth,

rounded and lustrous with joints at regular intervals. When examined with chemical, linen fibre looks greenish yellow in colour which shows that it is a linen fibre.

3. **WOOL FIBRE:** Wool fibre does not burn but it moulders with a strong smell of burnt hair or feathers leaving a bead of porous carbon. When viewed under the microscope, cross sections of the fibre is seen as irregular rounds or ovals of different thickness. With chemical examination, it looks bright-yellow showing that it is pure wool.
4. **SILK FIBRE:** When burnt, silk fibre gives off smells like burning hair. Under the microscope when viewed, it has uneven width fined, cross-markings at intervals and patches of silk gum. With chemical examination, it looks brownish to show that it is pure silk.
5. **RAYON FIBRE:** When burst, rayon leaves grey ash and under the microscope, it looks like transparent rods streaked wavy lines. With chemical examination, rayon fibre looks slightly yellow which indicates that it is pure rayon fibre.
6. **NYLON FIBRE:** Nylon fibre shrivels from flame and melts into a hard bead with a hard bead with a strong smell of celery. When seen under the microscope, the fibre looks like a glass rod and it is quite smooth. With chemical extraction, it looks very pale purple.

SUMMARY

Sometimes it becomes necessary to identify the particular fibre or fibres used in production of a yarn to permit dyeing, printing or for chemical finishing to be carried out successfully. The approach to fibre identification depends on whether the sample consists entirely one kind of fibre or a mixture of fibres. i.e a blend (for blends quantitative analysis of the fibres used in the production may be necessary). If the sample is in fabric form, dissect threads or pull out threads from it, warp and weft ways and examine separately. For double or folded yarns, separated into single component and examine each in turn. Fibre identification may be carried out in the following ways: microscopic examination, burning test, solvent solubility test and staining test.

REFERENCE

Nkeonye, P.O. (2009). Introductory Textiles for Home Economist, Student of Art and Beginners Generally S. Asekome and Co. Publishers, Nigeria.

UNIT 10: SELECTION, UTILIZATION AND CARE OF TOOLS, EQUIPMENT AND OTHER MATERIALS FOR TEXTILE PRODUCTION

INTRODUCTION

Today, there are great number of tools, equipment and other materials used in textile production that are available in the market. The selection should be given careful consideration.

It is important to know them and how to identify the various materials likely to be used in the production of textile materials.

OBJECTIVES

After studying this unit, you should be able to;

1. Mention the materials for utilization.
2. Describe how to take care of tools, equipment and other materials.

HOW TO STUDY THIS UNIT

1. Read through this unit carefully.
2. Note the materials to be utilized.
3. Note the care of tools, equipment and other materials.

WORD STUDY

Loom: is a locally made machine used in weaving yarn into fabrics.

Warps: are the vertical yarns.

Wefts: are the horizontal yarns.

Heddles or heralds: are made of cord or wire, and are attached to the shaft of the loom.

Shuttle: is a bobbin which holds the weft yarns.

Beater or reed: it presses the newly created weft thread against the already woven fabric.

ACTIVITY I

1. List the various materials for utilization
2. Mention three (3) care of tools, equipment and other materials.

SELECTION, UTILIZATION AND CARE OF TOOLS, EQUIPMENT AND OTHER MATERIALS FOR TEXTILE PRODUCTION

Today, there are great number of tools, equipment and other materials used in textile production that are available in the market. The selection should be given careful consideration. It is important to know them and how to identify the various materials likely to be used in the production of textile materials. On investigation, it may be found that one has been treated in such a way that it is labeled while the others has no label and they may be of different made. Choose the best tool, equipment and other materials one can afford for textile production.

UTILIZATION OF THE MATERIALS

- i. Loom
- ii. Heddles or Heralds
- iii. Harnesses
- iv. Beam
- v. Breast Beam
- vi. Reed
- vii. Shuttle or filling carrier
- viii. Bobbing roller for threads.

Loom is the major equipment which carriers the other tools plus materials that have to be available during the preparatory process of warping or gaiting-up. The loom carried the beam which hold the warp threads which the comb called reed pass through, that extends across the width of the cloth warped on the loom. The reed serves as the beater of the cloth on the loom. Among other things is does, it keeps the warp threads evening spaced across the cloth. In front of the reed, is the point known as the fell of the cloth, where warp and weft threads evening combined to form a woven cloth (Fabric). Without tools and other equipment (i.e. the working parts of the loom) whether local or mechanical. The textile production would met be possible.

CARE OF TOOL, EQUIPMENT AND OTHER MATERIALS

Careful use and regular attention given to the equipment, tools and other materials will increase the life span and also give efficient service for many year without replacement with new ones (i.e. without buying new materials). There are many of these materials on sales today (i.e. attractive loom and the working parts). These are however, expensive and also should not be

regarded as essential satisfactory point to craftsmanship. Things to consider while caring for these materials are: -

1. To give effective service, a loom must be correctly constructed, considerably used and regularly serviced (both local and mechanical).
2. Place the loom and the working parts in the corner of the room/shop where the children cannot reach them when they are not in use. This is to avoid the breakage of any parts of the material.
3. Clean them after use, sand paper all those tools and other materials that need to be sand papered before and after use.
4. Before putting these materials away, wrap them with cloth to prevent dust and cracking of the materials.
5. Do not put them in a place where they can crack and damage the materials.
6. During storage, check from time to time, to prevent them from cracking.

SUMMARY

Materials for utilization are loom, heddles or heralds, harnesses, beam , breast beam, reed, shuttle or filling carrier and bobbing roller for threads.

Careful use and regular attention given to the equipment, tools and other materials will increase the life span and also give efficient service for many year without replacement with new ones (i.e. without buying new materials).

REFERENCE

Nkeonye , P.O. (2009). Introductory Textiles for Home Economist, Student of Art and Beginners Generally S. Asekome and Co. Publishers, Nigeria.

MODULE 3: ORIENTATION TO FOOD LABORATORY AND FOOD PREPARATION

UNIT 1: ATTRIBUTES OF STANDARD FOOD LABORATORY

INTRODUCTION

The kitchen can be described as the laboratory in the home. It is a place where food preparation takes place. It can be described as a production center where all cooking takes place. The kitchen should be planned and arranged in such a way as to make the task of food preparation and utilization of both the equipment and tools easy.

Food laboratory is concerned with activities on food and food science as well as food technology, even food micro-biology dietitian and detritus. Here emphasis are laid on experimentation, demonstrations, practical and testing of food materials.

OBJECTIVES

By the end of this unit, the student should be able to:

- i. Define food laboratory.
- ii. List the attributes of a standard kitchen.

HOW TO STUDY THIS UNIT

4. Carefully read through the unit.
5. Identify the attributes of a standard kitchen.

WORD STUDY

Kitchen – This can be described as the laboratory in the home. It is a place where food preparation takes place.

Food laboratory – This is concerned with activities on food and food science, as well as food technology, even food micro-biology dietitian and detritus.

ACTIVITIES

1. List five (5) attributes of a standard kitchen.
2. State five (5) areas of Home Economics.

ATTRIBUTE OF A STANDARD KITCHEN

The kitchen can be described as the laboratory in the home. It is a place where food preparation takes place. It can be described as a production center where all cooking takes place. The kitchen should be planned and arranged in such a way as to make the task of food preparation and utilization of both the equipment and tools easy.

Food laboratory is concerned with activities on food and food science as well as food technology, even food micro-biology dietitian and detritus. Here emphasis are laid on experimentation, demonstrations, practical and testing of food materials. Techniques and resources directed towards food processing analysis and preparation, including preservation and storage are not left out,

- (iii) A standard kitchen should be a building that is free from distractions, noise, intruders, traffic and other obstruction.
- (iv) All facilities are arranged in sequence to suite specific tasks.
- (v) It is constructed with fixtures such as tap, sink, drainage board, cupboard, etc.
- (vi) It is a building without rooms or partitions, except a store for keeping small tools, equipment and utensils.
- (vii) It is well lighted and ventilated.
- (viii) Appliances found are mostly electrical and manual.
- (ix) It should have specific work center and table and tops.
- (x) Common tools and equipments are those for food demonstration, experimentation, processing, preparation and tasting, etc.

At the Senior Secondary School level of education, three areas of Home Economics are offered. These are:

- a) Food and Nutrition
- b) Clothing and Textile

c) Home Management

Each area of Home Economics are interwoven.

SUMMARY

A standard food laboratory or kitchen should be planned carefully to enable the home maker to work efficiently and comfortably. There should be such arrangement of equipment to provide easy movement and access to the equipment, tools and utensils. There should be adequate lighting and ventilation, water taps, adequate drainage from sink, storage space and work centre or table for meal preparation.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

UNIT 2: KITCHEN GEOMETRY

INTRODUCTION

The kitchen should be planned and arranged in such a way as to make the task of food preparation and utilization of both the equipment and tools easy. Unnecessary wandering in the kitchen due to poor arrangement of the equipment and tools should be avoided.

OBJECTIVES

By the end of this unit, you should be able to:

- (iv) Mention the three (3) basic kitchen plans
- (v) Describe the types of kitchen
- (vi) List two (2) characteristics of traditional and modern kitchen.

HOW TO STUDY THIS UNIT

- 3. Read carefully through the unit.
- 4. Identify the types of kitchen.
- 5. Note the characteristics of traditional and modern kitchen.

WORD STUDY

- 1. **Kitchen Geometry:** The kitchen should be planned and arranged in such a way as to make the task of food preparation and utilization of both the equipment and tools easy.
- 2. **Traditional Kitchen:** This is the first and the oldest form used for food activities.
- 3. **Modern Kitchen:** These are built using modern materials cement, blocks, bricks, corrugated iron sheets etc. A modern kitchen is comfortable, companionable and colourful.

ACTIVITY

- 1. State the three (3) basic kitchen plans.
- 2. List two (2) characteristics each of traditional and modern kitchen.

KITCHEN GEOMETRY

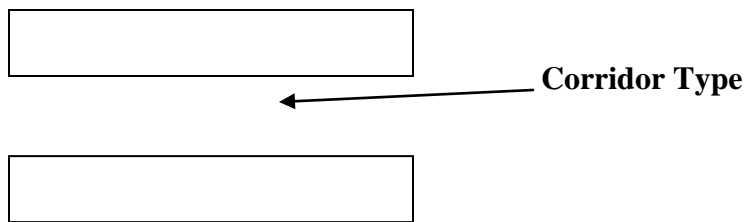
The kitchen should be planned and arranged in such a way as to make the task of food preparation and utilization of both the equipment and tools easy. Unnecessary wandering in the kitchen due to poor arrangement of the equipment and tools should be avoided.

A cheerfully decorated kitchen, planned for economy of space and movement will make the task of the house wife more enjoyable, pleasant and labour saving. It is unfortunate, however that the house wives, who use the kitchen more are not usually consulted during the planning or layout. The size of the kitchen will depend on:

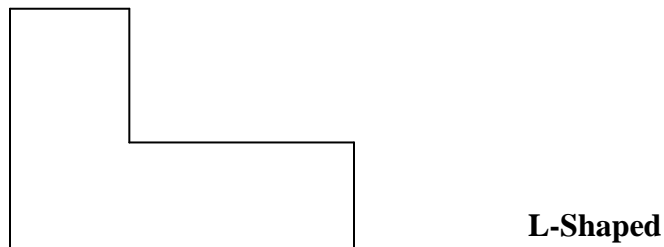
- a. Finance
- b. Size of the family
- c. Activities to be carried out in its

There are three kitchen plans

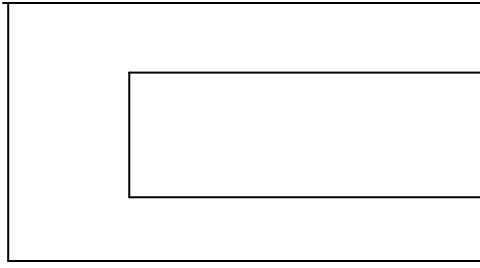
(a) **Corridor Type:** The equipment and appliances are fixed against opposite walls,



(b) **L-Shaped:** In this type, equipments and appliances are arranged along two adjoining walls.



(c) **U-Shaped:** In this type, equipment and appliances are fixed along two opposite walls and along the connected walls.



U-Shaped

Usually, the work carried out by the house wife in the kitchen follows a sequence. The food is taken out of storage; washed, prepared, cooked and served. It is therefore logical and wise that the arrangement of equipment in the kitchen should follow this sequence.

A kitchen is that section of the house which could be termed domestic workshop or laboratory. It is an area specially designated for food preparation, storage, cooking and serving. It therefore refreshes the several centers for meal management of food activities. And besides being one of the busiest rooms in the house and also one with the most expensive equipments.

TYPES OF KITCHEN

- 1. TRADITIONAL KITCHEN:** Represents the first and of course the oldest form used for food activities. They are found in rural areas of communities and where families cannot afford modern kitchens that have a well-designed kitchen.

Characteristics of traditional kitchen

1. They are constructed as separate units from the main compound or building.
 2. Tasks are often carried out sitting down, tools and articles are not well arranged.
 3. Drainage system is open.
 4. Floor is usually of mud but some are concrete.
 5. The fire places are of various types and can be;
 - (i) Fixed like clay cookers.
 - (ii) Moveable e.g. metal tripod.
 - (iii) Three big stones or corner shaped mud block triangular arrangement.
 6. Common fuels are either fire wood charcoal or coal.
 7. Shelves or kitchen racks are made of bamboo or wood. And are built above the fire place.
-
- 2. MODERN KITCHEN:** These are built using modern materials cement, blocks, bricks, corrugated iron sheet etc. They are those with contemporary buildings. A modern kitchen is comfortable, companionable and colourful. Many have at least one other function. The center

from which the home manager plans most of her house work and from which she can control and evaluate many of her plans.

Characteristics of a modern kitchen

1. Is part of the main building and located close to the dining area of the room.
2. Have floors made of concrete, terrazzo or tiles.
3. It is constructed with fixtures like sink, tap, drainage, boards, cabinets, shelves, etc.
4. Tasks are often accomplished by standing and arrangement of items is orderly.

A lot of activities are usually performed in the kitchen. This makes it important that good planning be put in place for excellent performance of test and also for efficiency and safety.

Planning a kitchen requires decision about electrical outlets, plumbing, lighting, installation and placement of major appliances, ventilation amount of work and storage space needed and the finishes of work surfaces. Work centers are significant in a kitchen. They are for planning, pre-painting, serving, eating, cleaning up and storage of equipment, small appliances and suppliers. Between them is a center space which reduces unnecessary movements and provides space for work and standing where needed.

SUMMARY

There are three (3) basic kitchen plans namely: - corridor type; L-shaped; U-shaped. There are also two major types of kitchen: The tradition kitchen and the modern kitchen. Many activities are performed in a kitchen, therefore careful planning should be given for efficient work. Consideration should be given to essential facilities in the kitchen: - this include lightning, plumbing, space for placement of large equipment, a store, ventilation and provision of a work surface.

REFERENCE

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 3: PLANNING AND SKETCHING A STANDARD KITCHEN

INTRODUCTION

The plan or layout of a kitchen depends on the equipment and utensils to be kept in the kitchen. It must therefore be done for proper arrangement of the facilities. The plan of a kitchen must be standard and prevent unnecessary movement during task performance save time and energy during meal, preparation, prevent accidents, etc.

OBJECTIVES

By the end of this unit, you should be able to:

- i. Mention the factors to consider when planning a kitchen.
- ii. Explain the factors to consider when planning a kitchen.

HOW TO STUDY THIS UNIT

1. Read carefully through the unit.
2. Identify the attributes of a standard kitchen.

WORD STUDY

1. **Ceiling:** The kitchen ceiling must be free of cracks and flaking. It should not harbour dust and insects.
2. **Walls:** The walls should be strong, impervious and easy to clean. They should have good paint preferably light coloured.
3. **Floor:** This should be made of concrete. It must be even and not slippery and should be easy to clean.
4. **Lighting System:** There are two types of lights: artificial and natural lights. The fluorescent type is more suitable for the kitchen because it does not form shadows and it generates less heat.
5. **Water Supply:** This helps in making the kitchen tidy. It should be a good water supply.
6. **Drainage:** This is where used water from the kitchen sink can pass through to the main drainage outside the kitchen.
7. **Ventilation:** Good ventilation contributes to the maintenance of comfort in the kitchen. Good ventilation will help to prevent development of undesirable odour.

ACTIVITY

- (a) Mention the factors to considering when planning a kitchen.
- (b) Explain the factors water supply and ventilation.

KITCHEN PLAN OR LAYOUT

The plan or layout of a kitchen depends on the equipment and utensils to be kept in the kitchen. It must therefore be done for proper arrangement of the facilities. The plan of a kitchen must be standard and prevent unnecessary movement during task performance save time and energy during meal, preparation, prevent accidents, etc.

The kitchen sink should be under the window so as to give adequate light for safe preparation of food and washing. The sink should be of comfortable height storage spaces must be provided for special task. The refrigerator should not be located close to the cooker for obvious reasons. Meals can eight be served in the kitchen or separate dining room. It should be easily accessible to the kitchen with hatch between for easy serving. There should be no space between the kitchen and dining room. Adequate lighting, both natural and artificial is essential in the kitchen, strain, accidents, inflammation and soreness of the eye can be caused by inadequate lighting.

Lighting should always be available when and where it is required. There by considering the size of the room, purpose of the room. The light sources to be used, the colour scheme of walls and furnishing dark finished absorb more light than lighter ones. The type of fittings to be used and the light distribution.

FACTORS TO CONSIDER WHEN PLANNING A KITCHEN

The need to plan the kitchen is not usually given serious consideration by most families when building their houses. Yet there is a great need for careful planning of the kitchen especially with respect to preventing fire outbreaks and other accidents that are likely to occur in the kitchen. The following points should be given due consideration in planning kitchen.

- (a) **Ceiling:** The kitchen ceiling must be free of cracks and flaking. It should not harbour dust and insects. The ceiling should be reasonably far from the fireplace and should not absorb moisture. It should be constructed with materials that do no chip easily.

- (b) **Walls:** The walls should be strong, impervious and easy to clean. They should have good paint preferably light coloured. The corners should be sharp in order not to harbour dust and dirt.
- (c) **Floor:** It should be made of concrete. It must be even and not slippery and should be easy to clean. Although an ideal kitchen floors is yet to be found, the flooring should be hard-wearing, non-absorbent to grease, not easily damaged or discoloured by hot utensils either by cleaning or by the weight of heavy equipment, not slippery under normal conditions or when hot. The floor should be reasonably resilient.
- (d) **Lighting System:** There are two types of lights: artificial and natural lights. The natural light is very important especially to our health. There are also two types of artificial lights: fluorescent and filament (bulbs). The fluorescent type is more suitable for the kitchen because it does not form shadows and it generates less heat. It is not advisable to have a coloured light system in the kitchen.
- (e) **Water Supply:** A good water supply to the kitchen is essential for efficient and quick working in the kitchen. It helps in making the kitchen tidy. The supply of water to the kitchen should be continuous.
- (f) **Drainage:** Drainage is where used water from the kitchen sink can pass through to the main drainage outside the kitchen. Apart from maintaining good drainage with the kitchen, proper channelization of the used water outside the kitchen is important. This will prevent development of offensive odour around the kitchen and also prevent easy contamination of the food. A sieve or metal gauze must be placed over the sink outlet, to prevent its blockage. The kitchen drainage should be constructed in such a way that it can easily be reached by the plumbers. This will make for easy clearing in case of blockage.
- (g) **Ventilation:** Good ventilation contributes to the maintenance of comfort in the kitchen. Adequate provision must be made for cross ventilation to get rid of the heat generated during the cooking process. Good ventilation will help to prevent development of undesirable odour.

SUMMARY

In planning a standard kitchen, numbers and sizes of equipment to be fixed in the kitchen should be considered first. Fittings, fixtures and equipment should be arranged in such a way to make room for easy movement. Height of equipment and work surfaces should be comfortable for the home maker. The walls should be very strong, the ceiling should be of some distance from the

fire place. There is need for good drainage system in the kitchen. Availability of good ventilation will provide comfort in the kitchen.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 4: MAJOR EQUIPMENT IN THE KITCHEN

INTRODUCTION

There must be certain basic equipment in the kitchen and it is very essential to know how much equipment, particularly heavy types that are required. Like the size of the kitchen, the types of equipment to be installed inside the kitchen will depend on the type of operations to be carried out.

Also, in selecting equipment the number of people in the family as well as the size of the kitchen should be considered.

OBJECTIVES

By the end of this unit, you should be able to:

- (a) List the categories of kitchen equipment.
- (b) Mention the three (3) mechanical equipment.
- (c) State the use of instruction leaflet.

HOW TO STUDY THIS UNIT

- i) Carefully read through the unit.
- ii) Note the categories of kitchen equipment.
- iii) Identify equipments, in each category of kitchen equipment(s).

WORD STUDY

- (a) **Large equipment:** These are pieces of equipment that occupy fairly large floor space such equipment includes gas/electronic cookers, deep freezers, sinks, tables, fish fryers, hot cupboards, microwave oven, etc.
- (b) **Mechanical equipment:** These are pieces of equipment that simplify some basic kitchen operations, they include peelers, mincers, mixers, refrigerators, dish washers, etc.
- (c) **Utensils and small equipment:** These are materials that are easily moved about in the kitchen. They include pots, pans, whisks, knives, spoons, forks, wooden ladle, etc.

ACTIVITY

1. What are the categories of kitchen equipment?

2. Mention three (3) mechanical equipment.
3. State the use of the instruction leaflet.

MAJOR EQUIPMENT

Before starting to cook there must be certain basic equipment in the kitchen and it is very essential to know how much equipment, particularly heavy types that are required. Like the size of the kitchen, the types of equipment to be installed inside the kitchen will depend on the type of operations to be carried out.

In selecting equipment the number of people in the family as well as the size of the kitchen should be considered. It is important to have an adequate supply in order to save time and labour, avoid buying cheap equipment, as later it may turn out to be more expensive because it will have to be replaced sooner than expected. But it does not mean buying unnecessarily expensive articles.

Kitchen equipment can be divided into three categories

- (a) Large equipment:** These are pieces of equipment that occupy fairly large floor space such equipment includes gas/electronic cookers, deep freezers, sinks, tables, fish fryers, hot cupboards, microwave oven, etc.
- (b) Mechanical equipment:** These are pieces of equipment that simplify some basic kitchen operations, they include peelers, mincers, mixers, refrigerators, dish washers, etc.
- (c) Utensils and small equipment:** These are materials that are easily moved about in the kitchen. They include pots, pans, whisks, knives, spoons, forks, wooden ladle, etc.

Large equipment: Major kitchen appliances, they include microwave oven, deep freezers, cookers or ranges refrigerators.

- 1) **Stoves:** Different types of stove are available while some are operated with gas, others are operated with electricity, coal or kerosene and some even operated by solid fuel e.g. fire wood. They are used for cooking while the oven selection is used for roasting and baking operations. For maintenance, the solid tops should be washed clean or wiped clean with a pad. While cool, the stove tops can be thoroughly cleaned by washing and using an abrasive. After any kind of cleaning a solid top should always be slightly greased.

- 2) **Boiling pans:** They may be heated by gas or electricity and are used for boiling and stewing large quantities of food. After used the boiling pan and lid should be thoroughly washed with mild detergent solution and then rinsed. The tilting operations should be greased occasionally and checked to see that it tilts easily.
- 3) **Hot cupboards and Bain Marie:** Hot cupboard (also known as hot plates) are used for heating plates and serving dishes and for keeping food hot. It can be gas, electric, or steam operated. The tops of most hot cupboards are used as serving counters and should be clean thoroughly after each service.
 Bain-Marie are open wells of water used for keeping food hot and are available in many designs. After used, the heat should be twined off, the water drained and the bainmarie cleaned inside and outside with hot detergent water, rinsed and dried. Any drain off tap should then be closed.
- 4) **Grills and Salamanders:** The grills or salamander can be heated by either gas or electricity. They are used for grilling tender cuts of meat, chicken and other food items.
 The salamander bars and draining trays should be cleaned regularly with hot water containing a little detergent. After rinsing, they should be replaced and the heat twined on for a few minutes to dry the bars.
- 5) **Sink:** The importance of a sink in the kitchen cannot be overemphasized as all washing up operations are carried out in it.
 The sinks, drainers, waste and overflow outlets should be cleared and rinsed after use. Occasionally boiling water should be poured into the sinks to clear the drains.
- 6) **Microwave:** This is a new cooking appliance that differs from other appliances in different ways. It performs cooking tasks faster and more easily than a conventional oven. It can cook a meal in minutes and prepare a snack in seconds. It is however best suited for cooking small amount of food.
- 7) **Cookers or ranges:** These are used for cooking, baking and boiling. Some cooker use only gas or electricity, while others use both electricity and gas. There are many brands of cooker in the market.
- 8) **Refrigerator:** Refrigerator plays very important role in food storage refrigerator are often very common in home because it is very useful in meal management. The storage space of the refrigerator is divided into different parts. Temperatures differs in the different parts as follows:

- i) The freezer compartment: This is ice-cold. It is for storing very perishable foods such as fresh fish, meats, etc. Foods stored here are frozen.
 - ii) The top-most shelf: This is nearest to the freezer; it is colder than any other part except the freezer. It is suitable for cooked food.
 - iii) The middle shelf: This is next to the vegetable crisper, it is suitable for drinks, raw fruits and vegetables.
 - iv) Vegetable crisper: This is the lowest apartment. It is just cool, it is suitable for storing raw fruits and vegetables.
 - v) Door of the refrigerator: Storage spaces for such items as eggs, butter, cheese and drinks. Many different types of food can be stored in the refrigerator. This is because it has different compartments and shelves with varying temperatures.
- 9) **Deep freezer:** While the refrigerator is divided into different parts with varying ranges of temperature, the freezer has one compartment with freezing temperature. Using the freezer allows the family to store foods for longer periods of time. The inside temperature of the freezer should be $0^{\circ}\text{C} - 180^{\circ}\text{C}$ and below:

Mechanical Equipment:

- 1) Refrigerators: They are used for preserving raw or cooked food items and other materials that are easily perishable. Hot food should not be kept inside the refrigerator. The refrigerator requires very careful attention. For maximum performance, the refrigerator should be maintained as follows;
 - i) Do not open the door for long or else warm air will enter, thus giving it additional work.
 - ii) Defrost weekly.
 - iii) Food should be arranged inside the refrigerator in such a way that the cold air can circulate all round. Excessive packing of food into a refrigerator should be avoided.
 - iv) A qualified service engineer should be called at the first sign of any defect.
 - v) Never remove material from the freezer compartment with a sharp object.
 - vi) The refrigerator should be cleaned thoroughly at regular intervals.
- 2) Food mixers: These are important labour saving devices. They are electrically operated and can be used for many purposes e.g. mixing pastry, cakes, mashing potatoes, beating egg white, mayonnaise, chopping vegetables and meat. All the compartments as well as the

machine should be thoroughly washed and dried. Care should be taken to see that no rust occurs on any parts.

- 3) Food slicers and choppers: Food slicers are used for any kind of slicing operation e.g. slicing of meat, fish, onions, potatoes etc while the choppers is used for chopping or dicing items of food like onions, spinach etc.

The blades can be sharpened regularly. Each section that comes in contact with the food should be cleaned and carefully dried after use. The rotating joints should be lubricated, care being taken not to allow the oil to come in contact with the food.

- 4) Mashers: They can either be hand or electrically operated. They can be used for mashing fish, yam or potatoes. They should be washed thoroughly immediately after use and dried.

C) Small Equipment

- 1) Frying pans: These vary in sizes. When new they should be proved or seasoned. This is done by spreading a thick layer of salt in them and placing them on hot stove or in a hot oven for 14 to 20 minutes. The salt is then removed and little fat or oil is added when wiped clean with a cloth.
- 2) Baking sheet or tins: These are made of various sizes. Before use baking sheets or tins should be slightly greased with a pure fat or oil. After use, they should be cleaned and dried.
- 3) Colander: It is simple metal bowl on a slight stem punched with holes and used for straining cooked vegetables. Other small pieces of equipment are graters, rolling pins, sieves, scales, spoons, plates, cup, chopping boards.

The general process of cleaning small pieces of equipment and utensils include scraping soaking washing and drying. At the end of these operations the equipment should be stored properly on shelves.

A leaflet of instruction is used with most equipment and appliances, and this should be kept and follows as a guide:

- For the maintenance of items
- For assembling of the items
- For proper use of the item

SUMMARY

In any meal preparation center, certain things must be put in place. Apart from the place where the meal will be cooked, i.e. the kitchen some equipment must be available. Some major equipment, mechanical equipment small equipment and utensils should be present. The equipment to be provided will depend on the activities to be carried out in the kitchen. Adequate supply of kitchen equipment and utensils will help to save time and labour in meal preparation.

REFERENCE

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 5: UTENSILS AND TRADITIONAL EQUIPMENT

INTRODUCTION

Utensils are essential in any kitchen for effective performance of meal preparation activities. Such utensils should not be complicated to manipulate and should be suitable in size for family operation. Choice of such utensils should be based on efficiency, affordability and durability. Some utensils could be modern or traditional i.e. locally produced and available.

OBJECTIVES

By the end of this unit, you should be able to:

- (a) List some utensils and traditional equipment.
- (b) Describe the use of these utensils.
- (c) State what should be considered when purchasing or selecting kitchen utensils.

HOW TO STUDY THIS UNIT

1. Read carefully through the unit.
2. Identify the use of kitchen utensils.
3. Note what is considered when purchasing or selecting kitchen utensils.

WORD STUDY

Cooking pots: These may be aluminium or enamel saucepans, iron or clay pots, which is suitable for use on coal pots, gas or electrical stoves.

Knives: These are used for chopping vegetables, cutting meat and fish etc.

Plates and cups: These are either made of enamel glass, delph, china or plastic.

ACTIVITY

1. Mention three (3) utensil used in the kitchen.
2. State the use of the knives.
3. List four (4) points of consideration when purchasing kitchen utensils.

UTENSILS AND TRADITIONAL EQUIPMENT

Kitchen equipment can be divided into three categories:

- (a) **Large equipment:** These are pieces of equipment that occupy fairly large floor space. Such equipment includes gas/electronic cookers, sinks, tables, steamers, ranges, fish fryers, hot cupboards, etc.
- (b) **Mechanical equipment:** These are pieces of equipment that simplify some basic kitchen operations. They include peelers, mincers, mixers, refrigerators, dish washers, etc.
- (c) **Utensils and small equipment:** These are materials that are easily moved about in the kitchen. They include pots, pans, whisks, knives, spoons, forks, wooden ladle, calabash in different forms and shapes.

If there is enough money and space, it is important to have an adequate supply of the kitchen equipment and tools in order, to save time and labour. However, in purchasing the equipment and tools, one should avoid buying cheap ones, as later they may turn out to be replaced sooner than expected. This does not mean one should buy unnecessarily expensive articles. It may be even be better and economical to make certain articles at home in some circumstances e.g. grater. Some of the essential kitchen equipment and utensils are:

- a. **Cooking pots:** These may be aluminium or enamel saucepans, iron or clay pots. Aluminium or enamel is light and suitable for use on coal pots, gas or electrical stoves. From electric stoves a special pan is made, with a flat, thick base so that the pan comes into immediate contact with the hot plate. Iron and clay pots are better used on wood fires. Cooking pots should be washed with warm soapy water, using a sponge and rinsing thoroughly.
- b. **Knives:** These are used for chopping vegetables, cutting meat and fish etc. If possible, all knives should be made of stainless steel, since it is easy to clean and will not discolour food. Knives should be washed immediately after use.
- c. **Plates and cups:** These are either be made of enamel, glass, delph, china or plastic. They should be washed with warm soapy water, rinsed thoroughly and allowed to drain in a drainer. It is always better to wash glass plates and cups in a plastic bowl so as to prevent their accidental breakage.

SELECTION OF KITCHEN EQUIPMENT AND UTENSILS

The following points should be considered when purchasing or selecting kitchen equipment and utensils:

1. Money at hand
2. Size of the kitchen. It is no use buying a piece of equipment only to discover that there is no place to install it and therefore cannot be used.
3. Facilities available. The home maker or housewife must put into consideration the facilities available in the house before purchasing kitchen equipment for example, if there is no electricity in a town where the family resides, it will not be wise for the family to purchase an electric cooker or dish washer.
4. Type of activities to be carried out in the kitchen.
5. The size and composition of the family.
6. Kind and amount of food to be cooked.
7. The relative importance placed on food and its use as compared with other items desired by the family.

SUMMARY

Kitchen equipment are grouped into three categories: large equipment, mechanical equipment and utensils/small equipment. It is essential for every home maker to have adequate supply of kitchen equipment in order to save time and labour. Availability of adequate kitchen equipment will also foster efficiency of meal preparation activities. Factors such as the amount of money that one has, size of the kitchen, available facilities, type of activities, family composition and size, type of food to be prepared and its amount should be considered before one purchases kitchen equipment and utensils.

REFERENCE

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 6: SEQUENCE OF EQUIPMENT IN THE KITCHEN

INTRODUCTION

Kitchen tasks and performances usually proceed in a sequence (orderly manner). That is food is brought out of the store, washed, prepared, mixed, cooked and finally served. The way equipment is arranged should therefore be in accordance with this sequence.

Irrespective of the type of kitchen plan used, the arrangement of the equipment ought to contribute to efficient work procedures. Activities in the kitchen fall on centre referred to as noble centres, the preparation and serving of meals, the clearing away and washing of dishes, and the storage and care of equipment, foods and other supplies. All the equipment that are related to one activity should be grouped together possibly for convenient compartment.

OBJECTIVES

By the end of this unit, you should be able to:

- i. List the different arrangement of equipment and kitchen work centres.
- ii. Mention space savers in the kitchen.
- iii. State some guidelines for storage arrangement.

HOW TO STUDY THIS UNIT

- a) Read carefully through the unit.
- b) Identify the different kitchen work centres.
- c) Note the guidelines for storage arrangement in the kitchen.

WORD STUDY

1. Food preparation/mixing centre:
This is close to the sink and refrigerator, a work centre is necessary and storage cabinets should be provided both above and below.
2. The cooking and serving centre:
Here there should be a location or storage for utensils, dishes and ingredients used in cooking with reach.
3. The cleaning and washing centre:

This is sometimes called the sink centre, it includes the sink, the food waste disposal unit and drainage board. Utensils and suppliers for washing vegetable fruits and for preparing uncooked ones should be handy.

4. Storage space/planning centre:

Here items to be stored include those in constant use, those seasoned or occasionally used and those rarely used.

ACTIVITY

- i) List three (3) different arrangement of equipment and kitchen work centres.
- ii) Mention three (3) space savers in the kitchen.
- iii) State four (4) guidelines for storage arrangement.

SEQUENCE OF EQUIPMENT IN THE KITCHEN

Kitchen tasks and performances usually proceed in a sequence (orderly manner). That is food is brought out of the store, washed, prepared, mixed, cooked and finally served. The way equipment is arranged should therefore be in accordance with this sequence for instance.

1. **The Sink:** This should be placed or located under a window or in a outside wall as a result of plumbing, drainage and light; cabinets should be provided her to cater for cleaning tools and equipment. Adequate ventilation is vital for the removal of steam, fumes, odours of combustion and also prevent condensation.
2. **Refrigerator:** Should not be located near the range, but their accessible to the kitchen and preparation centre.

ARRANGEMENT OF EQUIPMENT IN THE KITCHEN/KITCHEN WORK CENTRES

Irrespective of the type of kitchen plan used, the arrangement of the equipment ought to contribute to efficient work procedures. Activities in the kitchen fall on centre referred to as noble centres, the preparation and serving of meals, the clearing away and washing of dishes, and the storage and care of equipment, foods and other supplies. All the equipment that are related to one activity should be grouped together possibly for convenient compartment. As such careful planning is necessary no matter the size of the kitchen. The equipment for preparation and service, cleaning and washing of dishes can be well arranged in the 3 centres namely; the

preparation mixing cooking and serving centre, cleaning and washing centre. Storage should be provided in each centre for all the equipment on supplies commonly used. The arrangement should be in such way that each activity can be accomplished in its own place which the work proceeds in an orderly manner generally from right to left. For example, in the preparation of akamu or custard for a baby might include mixing, cooking, stacking the soiled dishes and utensils and washing and putting them away before serving (feeding) the baby.

THE FOOD PREPARATION/MIXING CENTRE

The food preparation centre is close to the sink and refrigerator. It needs adequate count space. Typical preparations are fruits and vegetables which are efficiently done at the sink. A work centre is necessary and storage cabinets should be provided both above and below. Knives, scrappers for peeling and a lined garbage pail or bag is essential here. Pots, pans, pressure cooker should be kept here, too. Chopping board or block for slicing bread, meat, and vegetable is equally useful.

In the mixing centre, mixing jobs like salads, dessert making, baking are commonly done and should be close to the refrigerator and the storage place of staples. There should be ample outlets near the mixing centre for electric equipments that are to be used. Common utensils here include, mixing bowls, measuring cups and spoon, baking pans, cookies cutters and sheets and similar items. They should be within reach.

THE COOKING AND SERVING CENTRE

The focus here is about the range which along with oven is regarded as the lub of the cooking and serving centre. Here, there should be a location or storage for utensils, dishes and ingredients used in cooking within reach. A shelf is necessary. Ample counter space for placing hot dishes is essential. Equipments, pot holders, ladles, serving spoons, strainers, matches, a container for grease and drippings, boosters, spatula and salt, pepper, herbs and spices.

These should be stored or hung close at hand. For most foods, this centre is the last stop before food gets to the table. The serving space has to be closer to the dining area for more convenience.

THE CLEANING AND WASHING CENTRE

This is sometimes called the sink centre, it includes the sink, the food waste disposal unit and drainage board. Utensils and suppliers for washing vegetable fruits and for preparing uncooked

ones should be handy (as well as) those for dish washing and other cleaning tasks. Dishes should be kept where they can be easily returned to their storage places after washing.

STORAGE SPACE CENTRE/PLANNING

Although not classified as work centre, storage spaces are equally important in the arrangement in a kitchen. Items to be stored include those in constant use, those seasoned or occasionally used and those rarely used.

While planning a kitchen, it must be understood that it has many special storage needs, for instance fresh foods need a cool, dry storage place and perishables foods should be kept in the refrigerator. Together with staples like flour, rice, sugar, cooking oil, they should be handy or close to the food preparation centre.

Shelf, drawer and cabinet space should be arranged such that a worker does not have difficulty to a particular package or utensil, serving plates. Plate's bowls or dinner plates should be close to the range. Trays may be stored here too. Pots, pans could be stored in cabinets either in the range or near it. Where there is no cabinet space, the items can be hung on the wall in a pleasing arrangement.

Space savers in the kitchen

- 1. Back of Doors:** Cleaners racks, spice racks, paper bag holder, towel racks or barks, apron hook,
- 2. On the Wall:** Cooking utensils racks, pot and pan hooks, cook book shelf. Pot holders, paper dispenser, cutlery racks etc.
- 3. Inside Cabinet:** Step shelves for spices, etc. Revolving trays, stackable plasticbins, plate racks, cup hooks etc. Storage has to be arranged such that having to bend or stretch continually to get at things used often is rule out.

Guidelines for Storage Arrangement

1. Each work centre should have storage space for equipment and supplies that are in frequent use.
2. The refrigerator should be placed near the mixing centre and the sink and not the range.
3. Storage for vegetables and fruits that do not require refrigeration, but washing and peeling should be located near or in the cleaning centre.

4. Some dish storage may be above the drain board in the cleaning and washing centre.
5. The sink should be located or placed under a window.
6. Every effort should be for storage truly functional in addition to the placement of articles at the point of first use. Functional storage also involves clear visibility, easy and quick accessibility.
7. Orderly arrangement and availability of small equipment are also important.
8. Nothing hinders or impedes official preparation like having to spend time searching for misplaced utensils thus place equipment that are often used together should be kept near each other e.g. placing mortar and pestle together.
9. Work should proceed according and orderly not moving forward and backward e.g.
Working area – sink range – dinner or
Sink – working area – range – dinner
10. Everything and all the ingredients to be used should be stored one place above and below storage racks in the cupboard.
11. These should be storage racks in the cupboard and on the drain boards.
 - Storage racks in the cupboard and on the drain board: Protect both dishes and glassware from chips and cracks.
 - Under sink storage: For cutlery keep these items at point of frequent use. Divided drawers keep cutlery sorted.
 - Shelf liners: That can be easily installed and replaced when soiled. It helps keep kitchen cabinets neat and sanitary.
 - Pegboard storage: Is always open to use and at the same time easy to reach, is attractive and functional in modern kitchens.

SUMMARY

Arrangement of kitchen equipment should be done in an orderly manner to promote efficiency of activities in the kitchen. Equipment should be arranged sequentially i.e. according to how each activity will be performed. There are three major activity centres in the kitchen, these are:- cooking and serving centre, cleaning and washing center, storage space centre. Some space savers should also be provided in the kitchen located either at the back of doors, on the kitchen wall or inside cabinet.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

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UNIT 7: KITCHEN HYGIENE

INTRODUCTION

In the process of food handling, high standards of cleanliness and sanitation must be practiced, if not food may become contaminated. Therefore, the need for both the person working in the kitchen and the kitchen itself must be scrupulously clean. The first step in providing clean, safe food is the selection in the food market. It is always good to examine packaged foods and avoid those in a torn package, a bulged can, or a container with an imperfect seal. Also perishable foods such as meat, fish, vegetables etc that are already spoilt or not properly stored should not be purchased. All these precautions will prevent the introduction of already contaminated food, and therefore disease carrying organisms, into our kitchen.

OBJECTIVES

By the end of this unit, you should be able to:

- i) Define personal hygiene.
- ii) Mention sanitary procedures to be observed in the kitchen.
- iii) State five (5) rules for kitchen hygiene.

HOW TO STUDY THIS UNIT

- a) Read carefully through the unit.
- b) Note the meaning of personal, food and kitchen.
- c) Note the rules for a hygiene kitchen.

WORD STUDY

1. **Hygiene:** the practice of keeping your body clean.
2. **Personal Hygiene:** This involves keeping hands clean before work in the kitchen, avoiding the use of long finger nails and employing the use of kitchen cap and apron.
3. **Food Hygiene:** This is how to prepare and store our food in a neat manner.

ACTIVITY

1. What is personal hygiene?
2. Mention four (4) sanitary procedures to observe in the kitchen.
3. State five (5) rules for kitchen hygiene.

HYGIENE

No matter how carefully the production and marketing processes have been handled before food reaches the kitchen, if high standards of cleanliness and sanitation are not practiced there, the food may become contaminated.

There is therefore the need for both the person working in the kitchen and the kitchen itself to be scrupulously clean. The first step in providing clean, safe food is the selection in the food market. It is always good to examine packaged foods and avoid those in a torn package, a bulged can, or a container with an imperfect seal. Also perishable foods such as meat, fish, vegetables etc that are already spoilt or not properly stored should not be purchased. All these precautions will prevent the introduction of already contaminated food, and therefore disease carrying organisms, into our kitchen.

PERSONAL HYGIENE

Even when effective sanitary practices have been observed in the chain of food production, processing and marketing, it is possible that a family member may become infected with one of the many organisms causing disease and unknowingly or carelessly transmit it to other members of the family. Because of this hazard of communicating an infection, only a person who is healthy and has no sores or skin infections should handle food, dishes and glasses used in the service of food to other persons.

Some of the sanitary procedures to be observed in the kitchen are:

1. Wash hands with soap and clean water, rinse and wipe them dry before beginning to work in the kitchen after each visit to the toilet, sweeping and dusting.
2. Avoid having long finger nails and the use of nail polish.
3. Avoid the use of jewelry on the fingers.
4. Always wear a clean apron or overall. An old frock can be made into a simple apron or overall.
5. Do not leave your hair uncovered. A cap or headscarf should be worn to prevent hair from getting into the food.
6. Any cuts or sores should be well dressed and covered and the hands should be washed just before beginning to cook and frequently during cooking.
7. Care must be taken so as not to sneeze or cough over the food.

8. Avoid putting on too high heeled shoes in the kitchen.

FOOD HYGIENE

Apart from the kitchen and personal hygiene, it is important that food is kept clean. The food being rich in nutrient is also a good environment for micro-organisms to thrive. The spoilage of food can be caused by any of the following agents.

- a. Micro-organisms
- b. Food enzymes
- c. Chemicals

Micro-organisms spoil food by making use of the nutrients thereby causing their decay. E.g. of micro-organisms that can cause food spoilage are bacteria, moulds and yeasts.

Food enzymes bring about spoilage by promoting reaction that can lead to the decomposition of the food components notably protein, carbohydrate and fats.

The presence of some chemicals in the food can also lead to spoilage of food by either promoting chemical reactions that will lead to the spoilage of the food or enhancing the activities of micro-organisms and food enzymes. The home maker must therefore make sure that food stuffs purchased are wholesome and free from any traces of contamination.

The following rules should be followed when handling food in order to prevent contamination.

1. Select fresh vegetables and fruits.
2. Use all perishable food on time especially when there are no facilities for storage refrigerator.
3. Foods that have changed from their natural odour, colour, texture and physical properties should not be purchased or consumed.
4. All foods must be covered with fitting lids.
5. Do not purchase canned foods that have dented or container swollen in.
6. Left over foods/soup should be boiled properly before consumption.

KITCHEN HYGIENE

In order to keep the kitchen clean and hence prevent contamination the following rules should be observed.

1. Keep work surfaces clean at all times wiping up any spoilage at once.
2. Use only clean utensils and dishes in the preparation and service of food.
3. Take hold of utensils by the handles, and of dishes and glasses in such a way that the serving surface is not touched.
4. Keep refrigerator and other food storage places very clean.
5. Wash up dishes after use with soap and water and drain by turning them upside down.
6. Always clean, dry cloth for drying dishes and utensils and boil the clothes daily after use. The drying clothes and towels should not be kept on the floor, neither should they be tucked under the arm nor put around the neck. Hang them on a line or nail in a convenient place in the kitchen.
7. Cover the dust bins with fitting lids and empty them regularly.
8. Cover all food when cleaning the floor and use methods that will keep down dust.
9. Wipe down shelves regularly to prevent cockroaches and other pests.
10. Every part of the kitchen should be kept scrupulously clean.

SUMMARY

Hygiene is essential in the production and marketing of food to prevent food contamination. High standard of cleanliness needs to be maintained while handling food. The individual working in the kitchen and the environment where food is being prepared should be clean. Some sanitary procedures such as frequent washing of hands, avoiding long finger nails and use of nail polish, avoiding the use of jewelry on fingers and arm, wearing of aprons, covering of hair should be observed while working in the kitchen work surfaces and utensils should also be kept clean in the kitchen.

REFERENCE

- Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.
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UNIT 8: SAFETY IN THE KITCHEN

INTRODUCTION

The kitchen by the virtue of the activities performed in it, usually contains different types of equipment and utensil. It involves the use of electricity, sharp objects like knives, hot liquids e.g. hot water and frying oil etc. different types of accidents are therefore likely to occur in the kitchen. Due to these reasons, the kitchen is one of the main areas of potential dangers, many accidents can be prevented and only happen because sufficient attention is not being paid to safety precautions therefore living safety should become a habit.

OBJECTIVES

By the end of this unit, you should be able to:

- (a) List some precautions that should be taken in the kitchen.
- (b) State the points to observe when using an electrical appliance.

HOW TO STUDY THIS UNIT

1. Read carefully through the unit.
2. Note the precautions to take in the kitchen.
3. Identity the points to observe when using an electrical appliance.

WORD STUDY

Flax – electrical wire

Chopping board – a wooding platform for cutting food items into pieces.

ACTIVITY

1. Mention three (3) precautions to be taken in the kitchen.
2. State four (4) points to consider when using an electrical appliance.

SAFETY IN THE KITCHEN

The kitchen is one of the main areas of potential dangers, many accidents can be prevented and only happen because sufficient attention is not being paid to safety precautions therefore living safety should become a habit.

The kitchen by the virtue of the activities performed in it, usually contains different types of equipment and utensil. It involves the use of electricity, sharp objects like knives, hot liquids e.g. hot water and frying oil etc. different types of accidents are therefore likely to occur in the kitchen. The housewife or whoever uses the kitchen must therefore take adequate precaution to circumvent the occurrence of any type of accident.

The following precautions should be taken in the kitchen.

- 1) Do not wear high heel shoes in the kitchen to prevent falling.
- 2) Make sure that spilled liquids on the kitchen floor are mopped up immediately.
- 3) Peelings from foodstuff such as bananas, plantain, yams, potatoes etc should not be allow to litter the floor.
- 4) Always wear gloves or use any hand protector whenever you are removing cooking pots from the cooker or stove.
- 5) Do not allow children into the kitchen.
- 6) Make sure that windows in the kitchen are opened to prevent suffocation.
- 7) Carry out all cuttings in the kitchen on the chopping board to prevent knife cuts.
- 8) Do not place hot water to heated oil carelessly in the kitchen.
- 9) When using an electrical appliance observe the following precautions;
 - a) Never pull the flex or wire to remove a plug out of the socket.
 - b) Always switch off the socket before and after plugging the electrically appliances.
 - c) If a socket becomes lose form the wall have it repaired at once.
 - d) Do not use too many appliances from one socket.
 - e) Replace cracked plugs immediately.
 - f) Do not tough switches or plugs immediately.
 - g) If a plug becomes warm during usage, have it and the appliance examined before using again.
 - h) If an appliance ‘crackles’ or ‘spark’ do not use it until it has been inspected and repaired.

- i) Never repair a blown fuse – always replace with a new one.
 - j) Check the flex for any exposure of the live wire particularly where it is attached to the plug or the appliance.
 - k) Do not pin anything e.g. decorations, to the electrical cables.
- 10) All kitchen utensils, especially glasswares should be handled with extreme care.
- 11) Read and understand the directions about the use of any appliance before using.

SUMMARY

The kitchen is a place in the home where accidents can take place, therefore precautions should be taken to avoid accidents. Such precautions include not spilling liquid on the kitchen floor, using gloves when removing hot pots and pans from the cooking range or the oven, keeping kitchen windows opened, not using too many appliances from one socket, immediate replacement broken or cracked plugs and sockets.

REFERENCE

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 9: KEEPING A FIRST AID BOX

INTRODUCTION

It is important that the housewife due to the possibility of occurrence of accidents in the kitchen. Keep a first aid box in the kitchen treatment. This will allow for the treatment of simple accidents and also serve as a preliminary before the arrival of a doctor in the case of a serious accident.

OBJECTIVES

By the end of this unit, you should be able to:

- (a) Define first aid.
- (b) List basic items in first aid box.
- (c) State simple first aid treatment for scratches, wounds, burns, electric shock, etc.

HOW TO STUDY THIS UNIT

1. Carefully read through the unit.
2. Identify the basic items in the first aid box.
3. Note simple first aid treatment for kitchen accidents.

WORD STUDY

1. **First Aid:** This is the initial treatment given to sustain the victim of an accident before the arrival of a doctor.
2. **Cuts:** These are fresh wounds caused on the body by any sharp objects.
3. **Burns:** A burn is nay injury caused by fire or by anything hot and dry.
4. **Scalds:** A scald is caused by hot water or oil injury the skin.

ACTIVITY

1. What is first aid?
2. List ten (10) items in the first aid box.
3. Mention first aid treatment to be given in during wounds with serious bleeding.

KEEPING A FIRST AID BOX

Because of the possible occurrence of accidents in the kitchen, it is important that the housewife keeps a simple first aid box there. This will allow for the treatment of simple accidents and also serve as a preliminary before the arrival of a doctor in the case of a serious accident. The first aid is treatment given to sustain the victim before the arrival of a doctor. It is not a substitute to proper medical treatment. The following items should be kept in the first aid box.

- 1) Assorted adhesive dressing
- 2) Triangular bandage
- 3) Roller bandage
- 4) ½ or packet of cotton wool
- 5) Scissors with blind point
- 6) Small size prepared sterile dressing
- 7) Antiseptic cream
- 8) Iodine
- 9) Blades
- 10) Crepe or intensive bandage
- 11) Absorbent cotton
- 12) Solution of hydrogen peroxide
- 13) Any petroleum base ointment e.g. Vaseline
- 14) Soap
- 15) Embrocation, sloan's liniment
- 16) Disinfectant – dettol or salvon

Cuts, burns and scalds

Cuts are fresh wounds caused on the body by any sharp objects e.g. knife, broken bottle or glass, broken cups etc. any cut should be treated promptly as it can become an ulcer or sore if not treated on time. The first treatment of any cuts is to prevent loss of blood through bleeding. This can be done by applying a piece of cotton wool soaked in acriflavine solution over the cut and then bandaging it.

Burns: A burn is any injury caused by fire or by fire or by anything hot and dry, such as pressing iron, hot plates, etc.

Scalds: A scald is caused by hot water or oil injuring the skin.

Both burns and scalds are dangerous because of the following reasons.

- 1) The large areas injure may let germs into the deep layers of the skin and so dangerous ulcer may form.
- 2) The severe pain weaken the patient, he may even faint, weakness or fainting due to pain is known as shock. Burns and scalds cause blister which are raised bags of skin containing fluid. Beneath the blisters are sores.

USING THE FIRST AID BOX

- 1) First aid box could be a wooden box.
- 2) It should be placed within easy reach possibly near the kitchen. In case of emergency.
- 3) Medicine bottles and other content should be clearly labeled.
- 4) Poisonous medicines should be kept separately.
- 5) First aid box should be kept clean, orderly and locked after each use.
- 6) Regular checks should be made on the contents of the box and replacements be made as they are used.

SIMPLE FIRST AID TREATMENT

Bruises: Caused by a fall or hard blow, but the skin does not break, but discolours or swells.

- i) Wash the injured part with cold water, as this will cause the blood vessels to get smaller in the bruise.
- ii) Continue to apply cold water on the wound for about twenty minutes.
- iii) Apply TCP or Savlon ointment to the bruise.

SCRATCHES AND SHALLOW CUTS

- i) Wash your hands. Using clean water and soap.
- ii) Then wash the wound with clean water and soap.
- iii) Use sterile cotton wool to wash the injured part; and clean thoroughly with a germicide or disinfectant to kill germs.
- iv) Then put a dry, clean dressing over the cut and bandage it in place.

WOUNDS WITH SERIOUS BLEEDING

- i) Stop the bleeding by applying pressure on the bleeding part.
- ii) Put a clean dressing in the form of a wad, and bandage tightly against the wound.
- iii) If the wound is deep, refer it to the doctor immediately so that the wound may be switched, an anti-tetanus injection given.

BURNS AND SCALDS

Burns are caused by heat such as fire, hot objects, friction, electric current or acids, scalds are caused by wet heat, such as hot water, steam oil or soup.

- i) Immerse burnt part in clean cold water for fifteen minutes to kill pain and reduce the risk of blistering.
- ii) Add on teaspoonful of salt to half a tumbler of water.
- iii) Then soak a guaze (or a piece of clean white cloth) in this solution and place a thick layer of wool on the affected part and bandage lightly to keep in position.
- iv) Do not open the blister to avoid entry of disease germs.
- v) If the burns or scald is severe, send the victim to the doctor immediately.
- vi) Badly burned patients may be given sips of water.
- vii) If clothing catches a fire throw patient to the floor and smother the flames with a rug or blanket.

ELECTRIC SHOCK

- i) Do not touch the victim until you have switched off the current, otherwise you will be electrocuted yourself.
- ii) If it is impossible to switch off the current, it is essential to protect your hands with rubber or newspapers and stands on some rubber or newspaper as well. Push the patient away from the appliance with dried wooden handle or stick.
- iii) Put the victim from contact with the electrical current and treat him for shock.
- iv) If his breathing has stopped, apply artificial respiration immediately i.e. mouth to mouth resuscitation before medical help arrives.
- v) In case of electric shock, it is always wise to send for a doctor immediately.

NOSE BLEED

- i) The victim should sit quietly with slightly bend forward.
- ii) Apply a cold cloth or ice to the bridge of the nose.
- iii) If the bleeding does not stop, pinch the nostrils firmly just below the hard part of the nose, and hold them until the blood clots.
- iv) Loosen tight clothing around victim's neck and chest.
- v) Have him keep his mouth open and breath through it, rather than through the nose. He should not blow his nose.
- vi) Place a cold, wet towel on the face and throat to cause the blood vessels to contract thus carrying less blood to the nose.
- vii) If bleed still continues, sent for the doctor.

SUMMARY

First aid is an immediate treatment offered to a victim of an accident before the arrival is taken to the hospital for treatment. Certain items such as triangular bondage, scissors, asserted adhesive dressing, iodine, razor blade absorbent cotton, disinfectant among others are usually found in the first aid box.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 10: WEIGHT AND MEASURE (S)

INTRODUCTION

Ability to use measuring equipment and tools is a basic skill in food preparation. Experience may make possible a measuring system without the use of standardized devices, but such a system is useful to only one person. Ability to use standard measuring devices on tools will ensure good results.

OBJECTIVES

By the end of this unit, you should be able to:

- i) State the measurement conversions.
- ii) Describe the simple test for temperature in local ovens.

HOW TO STUDY THIS UNIT

1. Carefully read through the unit.
2. Note the different measurement conversions.

WORD STUDY

Weights – how heavily something is when measured by a particular system.

Measurements – proportions of ingredients used in cooking.

ACTIVITY

1. State the equivalents for teaspoons and tablespoon
2. Describe the simple test for temperature in local ovens.

COOKING MEASUREMENT EQUIVALENTS

The information below shows measuring equivalents for teaspoons, tablespoons, cup, pints, fluid ounces and more. This page also includes the conversions for metric and U.S. systems of measurement.

1 tablespoon (tbsp) = 3 teaspoons (tsp)

1/16 cup = 1 tablespoon

1/8 cup = 2 tablespoons

1/6 cup = 2 tablespoons + 2 teaspoons

1/4 cup = 2 tablespoons

1/3 cup = 5 tablespoons + 1 teaspoon

3/8 cup = 6 tablespoons

1/2 cup = 8 tablespoons

2/3 cup = 10 tablespoons + 2 teaspoons

3/4 cup = 12 tablespoons

1 cup = 48 teaspoons

1 cup = 16 tablespoons

8 fluid ounces (floz) = 1 cup

1 pint (pt) = 2 cup

1 quart (qt) = 2 pints

4 cups = 1 quarts

1 gallon (gal) = 4 quarts

16 ounces (oz) = 1 pound (lb)

1 milliliter (ml) = 1 cubic centimeter (cc)

1 inch (in) = 2.54 centimeters (cm)

Source: United States Dept. of Agriculture (USDA).

U.S. – Metric Cooking Conversions

Capacity		Weight
1/5 teaspoon	1 milliliter	1 oz 28 grams
1 teaspoon	5 ml	1 pound 454 grams
1 tablespoon	15ml	
1 fluid oz	30ml	
1/5 cup	47ml	
1 cup	237ml	
2 cup (1 pint)	473ml	
4 cups (1 quart)	.98ml	
4 quarts (1 gal.)	3.8 liters	

MEASUREMENT CONVERSIONS

<u>BRITISH</u>	<u>US</u>	<u>METRIC</u>
1 teaspoon (t)	1 teaspoon	5 grams
1 dessertspoon (D)	2 teaspoons	10 grams
1 tablespoon (T)	1 tablespoon	15 grams
4 fluid ounces	½ cup	113 grams
1 teacup (C)	1 cup	226 grams
4/5 imperial pint	2 cups (1 pint)	0.45 litre
4/5 imperial quart	1 quart	0.90 litre
4/5 imperial quart	1 gallon	3.6 litre
1 pound	1 pound	454 grams

KITCHEN WEIGHTS AND MEASURE

IMPERIAL UNITS CONVERSION TO METRIC

1 Pint - 586ml

¾ Pint	-	426ml
½ Pint	-	284ml
¼ Pint	-	142ml
10z	-	28g
1/2lb	-	227g
1lb	-	454g
2lb	-	908g
1in	-	2.5cm

LIQUIDS

1 cup	-	150ml or ¼ pint approx
1 small tea cup	-	150ml or ¼ pint approx
6 tablespoons	-	150ml or ¼ pint approx
1 tumblerful	-	250ml or ½ pint approx
1 cigarette tin	-	250ml or ½ pint approx
½ lb (250g) Magarine tin	-	250ml or ½ pint approx
1 beer bottle	-	750ml or 1 ¼ pint approx
60 drops	-	1 teaspoon.

DRY INGREDIENT

1 heaped teaspoon flour	-	25g or 1 oz approx
1 level teaspoon sugar, salt, rice	-	25g or 1 oz approx
2 heaped tablespoons bread crumbs	-	25g or 1 oz approx
1 level tablespoon Jain or Syrup	-	50g or 2 oz approx

- 1 large egg - 50g or 2 oz approx
- 1 level tea cup flour - 100g or 4 oz approx
- 6 lumps sugar - 25g or 1 oz approx
- 1 dessert spoon - 10g or ½ oz approx
- 1 teaspoon - 5g or ½ approx

SIMPLE TEST FOR TEMPERATURE IN LOCAL OVENS E.G. SWISH OVEN

1. Heat the oven by the method suitable for each particular type.
2. Place a piece of white paper in the oven for 2 – 3 minutes. If the paper is

TEMPERATURE OF OVEN

- i. Black - Too hot
- ii. Dark Brown - Very hot
- iii. Golden Brown - Hot
- iv. Light Brown - Moderately hot
- v. Light Biscuit - Slow

OVEN CHART FOR BAKING

Oven	Gas with thermostatic control up to 9	Gas with thermostatic control up to 12	Electric of	Electric °C
Very hot	8-9	10-11	450-500	230-260
Hot	6-7	9-10	400-450	200-230
Fairly hot	5	8	350-400	170-200
Moderately hot	3-4	6-7	300-350	150-170
Slow	1-2	3-5	250-350	120-120
Very cool	¼ - ½	1-2	200-250	90-120

HOMELY MEASURE

2 teaspoonfuls are equivalent to 1 dessertspoonful

2 dessertspoonfuls are equivalent to 1 tablespoon

Powders e.g. flour icing sugar, fine cereals.

1 rounded tablespoonful = 20g

1 level tablespoonful = 10g

1 rounded dessertspoonful = 10g

1 level dessertspoonful = 5g

Dried fruit, coarse cereals, sugar

1 rounded tablespoonful = 40g

1 level tablespoonful = 20g

1 rounded dessertspoonful = 20g

1 level dessertspoonful = 10g

Syrup

1 tablespoonful = 30g

2 dessertspoonful = 30g

3 dessertspoonful = 50g

3 tablespoonful = 100g

Liquids

1 tablespoonful = 20ml

1 dessertspoonful = 10ml

1 teaspoonful = 5ml

Note: “Rounded” means that there is as much above the bowl of the spoon as it contained in the bowl.

Abbreviations

Liter (l) Fahrenheit (F)

Milliliter (ml) Celsius (C)

Time *Weight*

Hour (hr) Gram (g)

Minute (min) Kilogram (kg)

Second (Sec) Milligram (mg)

Abbreviation of weights and measure are not expressed in the plural – lb not lbs.

Fahrenheit (F) and Celsius (C) are always capitalized.

Common Units of Measure

1 gram (g) = 0.035 oz

1 kilogram (kg) = 2.21 lb

1 ounce (oz) = 28.35 g

1 pound (lb) = 453.59 g

Common units of volume

¼ cup (c) = 59.2 ml

1/3 cup (c) = 79.9 ml

½ cup (c) = 118.3 ml

1 cup (c) = 237 ml

1 quart (qt) = 946 ml

1 liter (l) = 1.06 qt

$$= 1000 \text{ ml}$$

$$1 \text{ tablespoon (tbsp)} = 15 \text{ ml}$$

$$1 \text{ Teaspoon (tsp)} = 4.9 \text{ ml}$$

$$\frac{1}{2} \text{ Teaspoon (tsp)} = 2.46 \text{ ml}$$

$$\frac{1}{4} \text{ Teaspoon (tsp)} = 1.23 \text{ ml}$$

SUMMARY

There is need to employ or use a means of measurement or weighing food material in order to obtain an expected good result while cooking. There are many ways by which food items can be measured, such by using spoons, cups and empty cans. Different countries have their ways of measuring. There are also conversions of various measurement such as the metric cooking conversion, imperial units conversion, homely measure and common units of measure.

MODULE 4: PATTERN DRAFTING AND CLOTHING SELECTION

UNIT 1: DEFINITION OF PAPER PATTERN DRAFTING AND TOOLS / EQUIPMENT USED FOR PATTERN DRAFTING

Introduction

Pattern drafting is the art of plotting points and joined with curves and straight lines to the pattern. It is the art of using measurements obtained from the figure to plot points and joined with curves and straight lines to form the pattern. For a dress maker to make a successful sewing especially the learners, the use of drafted pattern with paper must come in to enable her to achieve perfection in cutting and sewing of materials. Pattern blocks can be successfully drafted for individual figure by substituting the personal measurements of the figure for which the pattern is to be drafted.

Tools and equipment used for pattern drafting simply means those items that a dressmaker will need before drafting can be carried out. These items include:

1. Wide and flat table
2. A good tape measure
3. A cleaner
4. A pencil
5. Curve rulers (French curves)
6. Brown paper
7. Fine felt paper
8. An exercise book.

Objectives

At the end of this unit, you should be able;

1. To explain the term pattern drafting
2. To identify the key points that have to come together to form the pattern.
3. To explain the importance of measurements to the dressmaker.
4. List the items needed by the dressmaker for drafting pattern.
5. Give reasons why all these are needed during pattern drafting.

How to Study this Unit

1. Before reading through this unit, read through the word study
2. As you read through, take note of the unfamiliar words, check the dictionary, Home Economics book and internet for the meaning.
3. Follow this unit step-by-step as it has being arranged for you.

Word Study

Study these words carefully;

1. **Pattern Drafting:** this is the plotting of points and joined with curves and straight lines to form the patterns.
2. **Figure:** This simply means the individual whose measurements are used in drafting the pattern.
3. **Measurement:** This simply means the art of getting the size of the individual figure before drafting the pattern.
4. **Tools:** These are small hand instruments used when drafting pattern e.g. pencil, cleaner, curve rulers, etc.
5. **Equipment:** These are big instruments used during pattern drafting, layout and cutting during garment construction e.g. table, iron, etc.

Activities

1. Draft pattern with you own measurements at home

Questions

1. Itemize the concepts involved in pattern drafting
2. Why do you take measurement
3. Define the word pattern
4. Briefly explain pattern drafting
5. Give one reason why a dressmaker should use pattern.

Summary

Pattern drafting is the art of plotting points joined with curves and straight lines to form a pattern.

A figure refers to the individual whose measurements are used in drafting the pattern, while measurements simply means the art of obtaining the correct size of the individual before drafting the pattern.

Some of the equipments used for pattern drafting includes;

- Wide and flat table.
- Good measuring tape.
- A cleaner and pencil.
- Curve rulers (French curves).
- Brown paper.
- Fine felt paper
- A note pad/ an exercise book.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 2: UNDERSTANDING THE PATTERN MARKINGS AND PATTERN LAYOUT

Introduction

Pattern markings are the symbols used to identify the pieces of each pattern block during laying and cutting out of the material. These are very important during construction for the learners. They help the dressmaker to cut and assemble the garment pieces correctly and the same time when joining the garment.

Objectives

At the end of this unit, you should be able to;

1. Explain the term pattern marks
2. Give example of some of the pattern marks found on pattern blocks
3. Identify each pattern marks when seen on the pattern block.
4. Explain pattern layout.
5. Identify pattern makers as guide in layout e.g. grain line
6. Explain the guiding rules in pattern layout.

How to Study this Unit

1. Before reading through this unit, read through the word study
2. As you read through, take note of the unfamiliar words, check the dictionary, Home Economics book and internet for the meaning.
3. Follow this unit step-by-step as it has being arranged for you.

Word Study

Study these words carefully;

1. **Pattern Marks:** These are guides used in sorting out the pattern piece and arrangement on the fabric.
2. **Solid Line:** This means a line showing where to fold for the hem.
3. **Broken Lines:** This shows where to stitch when sewing the garment.

4. **Pattern:** Is a drafted brown paper used in cutting out material for garment construction.
5. **Pattern Layout:** This is the arrangement of pattern pieces on the material (fabric) before cutting out.
6. **Pattern Marks:** These are guidelines used in laying the patter pieces, cutting out and joining of the material.

Activities

1. Draft pattern and indicate the necessary pattern marks on every piece of patter drafter.
2. Practice pattern laying at home as many times as possible on material
3. Cut out and join the material and see if you can make a perfect construction of a garment.

Question

1. Define the term pattern marks
2. Sketch out the pattern marks that you know on a drafted pattern.
3. Define the term pattern layout.
4. Mention 3 points to consider when laying pattern on the fabric.
5. Sketch out the pattern marks used for identification of grain line on a paper pattern.

Pattern Layout

Pattern layout is the assembling of the pattern pieces on the material (fabric) to sew before cutting out, i.e. every pattern piece must be layout in accordance e.g. layout every pattern piece by:

1.
 - a. place the largest pieces first
 - b. place the part which is marked “place on fold” exactly on the fold of the material.
 - c. follow only the allowances and turn ups provided on the pattern piece.
2. Pin all the pieces of the pattern blocks in place to prevent them from shipping.
3. check the grains on each pattern piece.
4. Check and make sure that each pattern piece is placed correctly with enough or accurate seam allowances (5/8”).
5. When all these are correctly carried out, get ready to cut out the material.

Points to Consider when Laying out and Cutting Out Pattern

1. Try and know all the peculiarities of the warp, weft and bias of a fabric before cutting.
2. The weft of the fabric (threads) are silky in nature, wove into damask pattern.
3. Check if the design of the fabric has a definite up and down, the pattern pieces must be arranged facing all one way, as on the left, and not up and down on the right.
4. The straight on the grain of all pattern pieces should be marked with a symbol, consisting of a long block arrow, must be placed on the grain of the material to set the pattern of a blouse or skirt correctly.
5. When the material being used for the construction is plain and without nape, the pattern can be arranged facing up and down.
6. Stripped and check materials must be carefully matched at the seams, centre front and back bodice.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

UNIT 3: MEASUREMENT OF THE BODY PARTS AND PRINCIPLES INVOLVED IN TAKING ACCURATE BODY MEASUREMENTS

INTRODUCTION

Body parts are the taking of measurement of those parts that combine with each other to make up a whole. They are those areas measured during garment construction to enable the dress maker to get the correct fit.

OBJECTIVES

At the end of this unit, you should be able to:

1. Explain measurement.
2. Explain the body parts needed to be measured.
3. Identify those parts practically with yourself
4. What measurements are all about
5. Explain the importance of measurements in your construction.
6. Itemize the principle involved in taking body measurements of the figure.

HOW TO STUDY THIS UNIT

Before reading through this unit, read through the word study.

As you read through, take note of the unfamiliar words. Check your dictionary, home economics book, and the internet for the meaning.

Follow this unit step by step as it has been arranged for you.

WORD STUDY

Study these words carefully:

Measurement – this is an act of knowing the size.

Parts – means things brought together to make a whole.

Dressmaker – means the person constructing the garment.

Tape measure – this is the rope used in taking measurement of the figure.

Bulk – this simply means a swollen part when taking the measurement.

Stiff – this simply means something strong.

Slouch – this means for someone to bend to one side instead of standing straight.

Accurate – this means there is no addition to what is taking

ACTIVITIES

Learn how to take measurements from the people at home i.e. from your young ones.

Write them down and bring them to the next class.

Practice on how to take measurements from your young ones at home.

Record and check if the measurements are ok.

QUESTIONS

Define the term body parts.

Why do need to take the measurements of the parts?

Define the term accurate

List three principles of measurements that you know.

Why do you need accurate measurements?

BODY PARTS MEASUREMENT

The following are the parts to measure when taking measurement from the figure:

- i. Front waists length.
- ii. Back waist length.
- iii. Bust plus 5cm(2") ease
- iv. Back width (shoulder) plus 15mm (3/4") ease
- v. Sleeve length plus 15mm (3/4") ease
- vi. Sleeve head depth plus 15mm (3/4") ease
- vii. Waist plus 2.5cm (1") ease
- viii. Upper hip plus 5cm (2") ease
- ix. Length skirt.

A perfectly sitting garment constructed starts with accurate measurements. Therefore, it is necessary for a design to know how to take body measurements from the individual figure before any construction can take place. Principles involved in taking accurate measurements are:

1. The tape measure should be hold strongly and firm, but not tightly against the body.
2. The figure (the person) should wear a smooth close fitting dress to prevent bulk and do not measures over heavy or bulky clothing like cardigans or over coats.
3. The figure should stand well and relax when being measured.
4. Do not pull or over stretch the tape for this will reduce the true body measurements and use non stretch tapes when taking measurement.
5. The figure should maintain correct body posture when being measured, stand straight but not stiff nor slouch or leaning to one side as this gives inaccurate body measurements.
6. Do not push in your stomach when you are being measured for garment construction.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 4: FLAT PATTERN DEVELOPMENT THROUGH DRAFTING METHODS/ DEVELOPMENT OF PATTERN THROUGH MODELING ON A STAND

INTRODUCTION

Flat pattern developments is the act of taking measurement of an individual, plot, joined, with curves and straight lines to bring out the pattern, the flat pattern can never be drafted with the accurate measurements. When developing a flat pattern or drafting a flat pattern, the following measurements should be taken accurately;

Blouse	Skirt
1. Length	Length
2. Bust	Waist
3. Shoulder	Hip
4. Across back	
5. Across chest	
6. Waist	
7. Sleeve	

Model is an image that have a three dimensional copy of a person. This is used to construct pattern. This is done unit by unit on the stand to get the correct fit. Models have a structural built of the human body. Each pattern piece is cut and placed on the body one after the other to get the correct fit by the dressmaker. After the dressmaker has attached each piece temporarily on the model, stand, she moves back to preview it, to see the fitness of the dress on the model. She can if there is any amendment to carry out or not, if not then the really sewing can commence.

HOW TO STUDY THIS UNIT

1. Before reading through this unit, read through the word study.
2. As you read through, take note of the unfamiliar words. Check your dictionary, home economics book, and the internet for the meaning.
3. Follow this unit step by step as it has been arranged for you.

WORD STUDY

Study these words carefully:

1. Flat pattern – this means a drafted pattern with the use of measurements
2. Plot – this means the various point made before joining them.
3. Model – this is an image which looks like human body used for pattern development.
4. Modeling stand – this is an image used in presenting the garment temporarily to see how fit the garment will look after construction.

ACTIVITIES

Take your friends measurements and draft a pattern for her blouse.

Made a model stand.

Use it for pattern development

QUESTIONS

1. Explain the term flat pattern.
2. Mention two reasons for taking measurements before drafting the flat pattern.
3. Define the term model stand
4. Mention two (2) functions of model stand to a dressmaker.

REFERENCE

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 5: DEVELOPING PATTERN USING DRAPING METHOD / MANIPULATION OF DARTS.

INTRODUCTION

Many fitted garments such as slacks, blue jeans, T-shirts and most suits are also made as fitted garments. Draping method is an artistic approach in which a dressmaker her pattern by fitting cloth into the curve of a dress formed. It is a pattern that have been draped, cut and use. That is, the paper pattern is drafted in draped form.

Darts are usually used at the waist, bust and shoulders of garments, with the points of darts tapering towards the wider parts of the figure. A dart should be in conspicuous and really taped stitched pleat on the wrong side. A well stitched dart has the point tapering gradually to nothing so that the surface of the fabric is quite smooth at the end of the dart.

OBJECTIVES

At the end of this unit, you should be able to:

1. Explain the term draping.
2. Explain how the methods was developed
3. Identify the pattern when seen.
4. Explain the term dart.
5. Explain the function of dart in a garment.
6. List and explain the type of dart and where the darts are made in a garment.

HOW TO STUDY THIS UNIT

Before reading through this unit, read through the word study.

As you read through, take note of the unfamiliar words. Check your dictionary, home economics book, and the internet for the meaning.

Follow this unit step by step as it has been arranged for you.

WORK STUDY

Study these words carefully:

1. Draping – describes the arrangements of material (fabric) loosely round the neckline.
2. Draping method – this means the methods of constructing garment that looks loosely on the body.
3. Dart – this is used at the waist underarm and should to control the fullness.
4. Shoulder – the width of the body.
5. Underarm dart – the control of the burst fullness.

ACTIVITIES

Take your own measurements and draft a pattern for draft pattern.

Get pieces of materials and learn how to darts.

Cut bodies on a piece of material and make waist dart, should dart and undersarm dart.

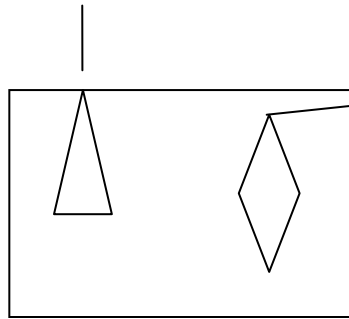
QUESTIONS

1. Define draping method.
2. Describe the garment what it looks like after construction.
3. Define dart.
4. List three (3) types of dart that you know.
5. Why do you make darts on garments?

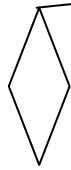
HOW TO MAKE A DART

1. Fold the fabric so that the right sides face and pattern lines of the dart are together.
2. Some darts are pointed at both ends. These can be made similarly but the stitching is started at one point and ends at the other. It is advisable that a dart should be properly made so that it has flat on the right side of the garment, e.g.

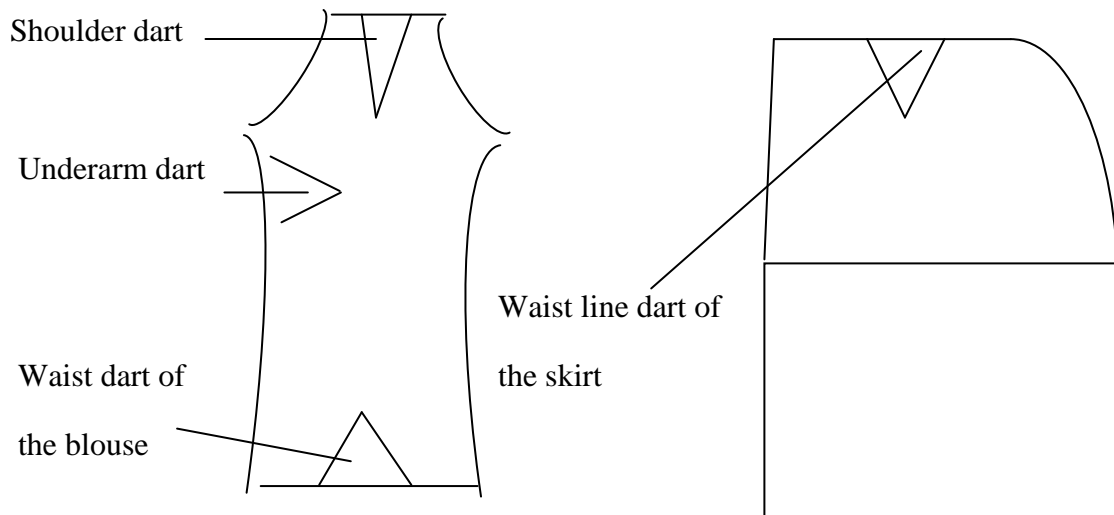
Single pointed dart



Double pointed dart



TYPES OF DARTS



GUIDELINES FOR SMOOTH DARTS

1. Shoulder darts should be press towards center.
2. Underarm dart and waistline darts should be press downwards to give a smooth finishing.

REFERENCE

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 6: DEFINITION OF CLOTHING TERMS

INTRODUCTION

To be able to have a proper understanding of all the perquisites in needle work and dressmaking class, it is important to have a clear understanding of all the clothing terms. The terms in clothing are numerous and varied, they include clothing, culture, dress, costume, fabric, finish, grain, layette, seam, wardrobe planning, warp, weft garment, selvedge, yarn, right side (RS), wrong side (WS) etc.

OBJECTIVES

At the end of this unit, you should be able to:

1. List ten (10) clothing terms.
2. Define five (5) clothing terms.

HOW TO STUDY THIS UNIT

1. Before reading through this unit you should go through the word study.
2. As you read through, take note of unfamiliar words, look up the meaning from your dictionary and home economics book or on the internet.

NOTE: ALL ANSWERS TO ACTIVITIES AND ASSIGNMENT ARE AT THE END OF THIS BOOK.

WORD STUDY

Study these words before you read on:

Clothing- Any article placed on the body to protect, beautify, identify and show the status of the wearer.

Culture – The way of life of a society or a group of people which passes on from one generation to another.

Dress – A piece of clothing worn by a woman or girl that covers her body from her shoulder to somewhere on her leg.

Costume – A set of clothes that are typical of a particular place or historical period of time.

Fabric – A cloth that is constructed with yarn or directly from fibers by weaving, knitting, crocheting etc.

Fabric finish – A special treatment given to fabric after construction.

Grain – The direction of yarns or threads in a fabric.

Layette – A complete outfit of clothing for a new born baby.

Seam – A line of stitching, joining two or more pieces of fabric together.

Wardrobe planning – A process of planning for the clothing needs of an individual or the entire family.

Warp – A yarn that runs lengthwise in a woven fabric.

Weft – A yarn that runs crosswise in a woven fabric.

Garment – Items such as clothes that are worn on the body.

Selvedge – The edge of the fabric made by the weft thread or yarn by turning over the warp. It is the well finished edge of the fabric which runs in a lengthwise direction.

Yarn – is a thread made by twisting or spinning fibers.

Right Side (RS) – This is the side of fabric that is worn out. It has better finish and more distinct print than the wrong side.

Wrong Side (WS) – Is the side of fabric to be worn inside.

ACTIVITIES

Write the definition of the familiar clothing terms on a cardboard paper.

QUESTIONS

1. List ten (10) clothing terms that you know?
2. Define any five (5) clothing terms listed above?

SUMMARY

Clothing refers to any article placed on the body to protect, beautify, identify and show the status of the wearer. Some common clothing terms and their definitions includes;

Dress- a piece of clothing worn by a woman or girl that covers her body from her shoulder to her legs.

Costume – a set of clothes that are typical of a particular place or historical period of time.

Fabric- a cloth that is constructed with a yarn or directly from fibers by weaving, knitting or crocheting.

Seam- A line of stitching, joining two or more pieces of fabric.

Garment – items such as clothes worn on the body.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 7: BASIC AND DECORATIVE STITCHES

INTRODUCTION

The basic and decorative stitches are the various groups of stitches that are used in the production of garments. The basic stitches are temporary stitches, permanent stitches and decorative stitches.

OBJECTIVES

At the end of this unit, you should be able to

- (1) Identify the three groups of stitches.
- (2) Give four (4) examples of stitches under each group.
- (3) Enumerate four (4) general rules for working stitches.

HOW TO STUDY THIS UNIT

- 1) Before reading through this unit, you should go through the word study.
- 2) As you read through, take note of unfamiliar words, check the meaning from your dictionary, home economics textbooks and the internet.
- 3) Study this unit step by step.

WORD STUDY

TEMPORARY STITCHES – stitches that are used to hold together before the permanent stitches are made.

PERMANENT STITCHES – stitches that are used permanently on a garment.

DECORATIVE STITCHES – stitches that are used for decorating garments.

BASIC STITCHES AND DECORATIVE STITCHES

TEMPORARY STITCHES

Temporary stitches are used to hold fabrics together before permanent stitches are worked on it.

They include:

- 1) Even tacking

- 2) Long and short tacking
- 3) Tailor tacking
- 4) Diagonal tacking.

PERMANENT STITCHES

Permanent stitches are used permanently on a garment, examples are:

- i. Hemming
- ii. Overcasting
- iii. Back stitch
- iv. Buttonhole stitch
- v. Machine stitch
- vi. Blanket stitch

DECORATIVE STITCHES

Decorative stitches are used to beautify garment, they include

- i. Chain stitch
- ii. Herringbone stitch
- iii. French knot
- iv. Stem stitch
- v. Satin stitch
- vi. Fern stitch
- vii. Cross stitch
- viii. Vandyke stitch
- ix. Fly stitch
- x. Leaf stitch

GENERAL RULES FOR WORKING STITCHES

The general rule for working stitches are;

- 1) Choose the correct stitch for the work to be carried out.
- 2) Use the correct size of needle and the sight type of thread for the material.
- 3) Wear a thimble on the middle finger of the hand.
- 4) Work out one stitch at a time.

- 5) Never use a knot for fastening a stitch.

ACTIVITIES

Produce an album showing examples of stitches from temporary, permanent and decorative stitches.

QUESTION

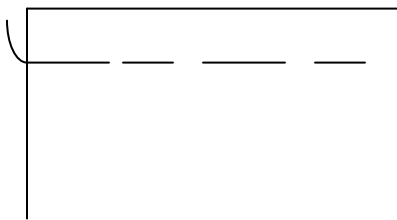
- 1) List the three groups of stitches and give four (4) examples of stitches under each group?
- 2) State four (4) general rules for working stitches.

Temporary stitches are stitches that are used to hold fabric together before the permanent stitches are made such as:

1. Even tacking: used for holding parts of a garment together before in place so that the permanent stitches may be worked accurately.



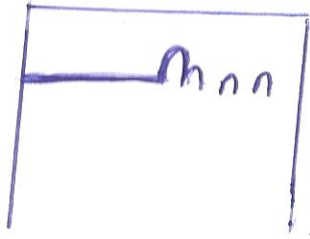
2. Long and short tacking: These are also used to hold parts of garments together before permanent stitches are made and they can also be used for an single fabric for marking-out purposes.



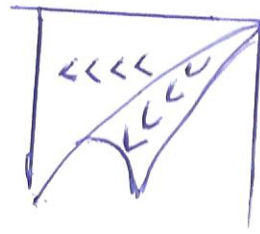
Method

Start with double stitch knots should be

3. Tailor's Tacking: This is useful when marking two layers of material especially after cutting out. Tailors tacks have loops which are cut to show the stitching lines on the garment. Use contrasting threads.

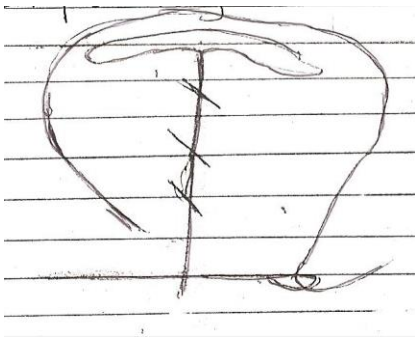


Tailor's tacking



Tailor's tacking cut in half

4. Diagonal tacking or basting: These are long loose stitches used to hold material together temporarily.



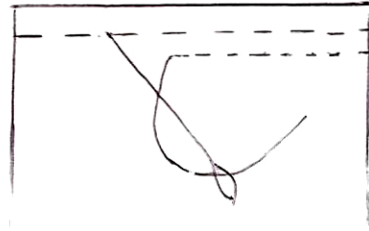
Diagonal Tacking or basting

Permanent stitches

Permanent stitches are used mainly to sew two or more pieces of material together permanently. Choice of the stitch depends on the purpose for which it is to be use for example;

1. Stitches used for neatening raw edges:
 - Blanket stitch
 - Overcasting
 - Buttonhole stitch
 - Hemming stitch
 - Herringbone stitch
2. Stitches used for controlling fullness:
 - Running stitch
 - Gathering
3. Stitches used to hold different part of the garment together:
 - Machine stitch
 - Back stitch
 - Oversewing

- ✓ Running stitch: These are used to sew to sew pieces of materials together. They can also be used instead of machine stitch therefore, they should be even and small. Begin and end with a double stitch and to make them stronger, make a backstitch at intervals.



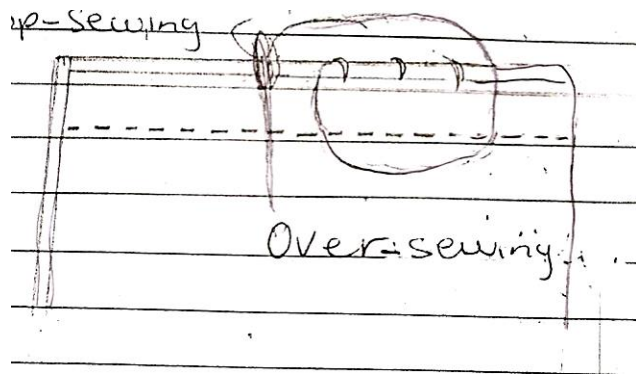
Running stitches

- ✓ Back stitching: These are permanent stitches that are stronger running stitches. They look like machine stitches on the right side and stem on the wrong side. There should be no space between the stitches and end with a double stitch. The stitching is right to left. Unlike running, backstitches will not pull.



Back stitch

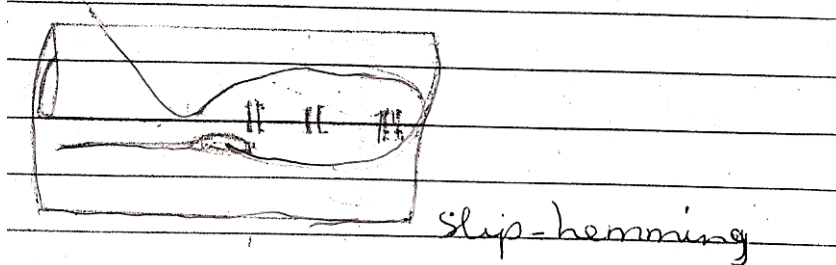
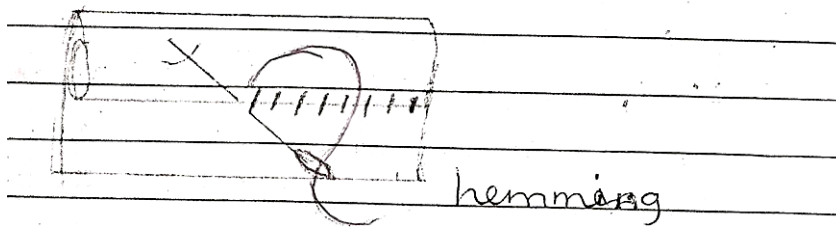
- ✓ Over-sewing: This is a permanent stitch that is mainly used for neatening raw edges. It is sewn from right to left and must be done firmly, must be worked with the grain of the fabric not against it and the depth should be depend on the fabric used, between $\frac{1}{4}$ " to $\frac{1}{2}$ deep. It also called top-sewing.



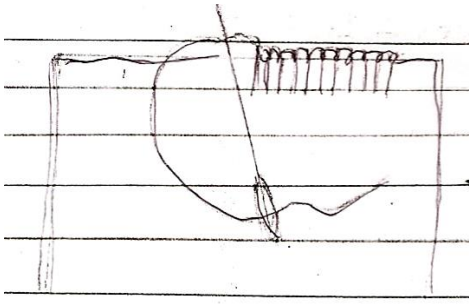
Over-sewing

- ✓ Hemming: This is used for holding edges firmly in place neatening, they are useful for hems, pockets, facings. There are two types of hemming; even hemming and slip hemming.

Even hemming is used when strength is required but when the hem is to be invisible, the slip-hemming is done. Pick up very little material in each case.

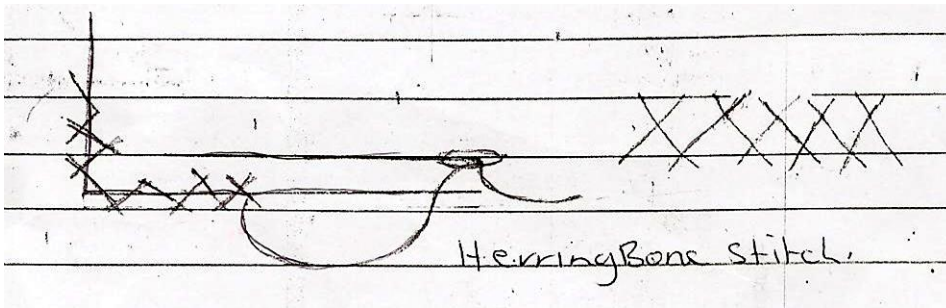


- ✓ Buttonhole stitch: This is used for finish the hole which has been cut for the buttons. Worked buttonholes are made through double fabric. Therefore facings, collar must be completed first. Stitches should be one thread apart.



Buttonhole stitch

- ✓ Herringbone stitch: This is used on woolen material when the edge is too bulky to turn in a hem. The stitch is worked from left to right.



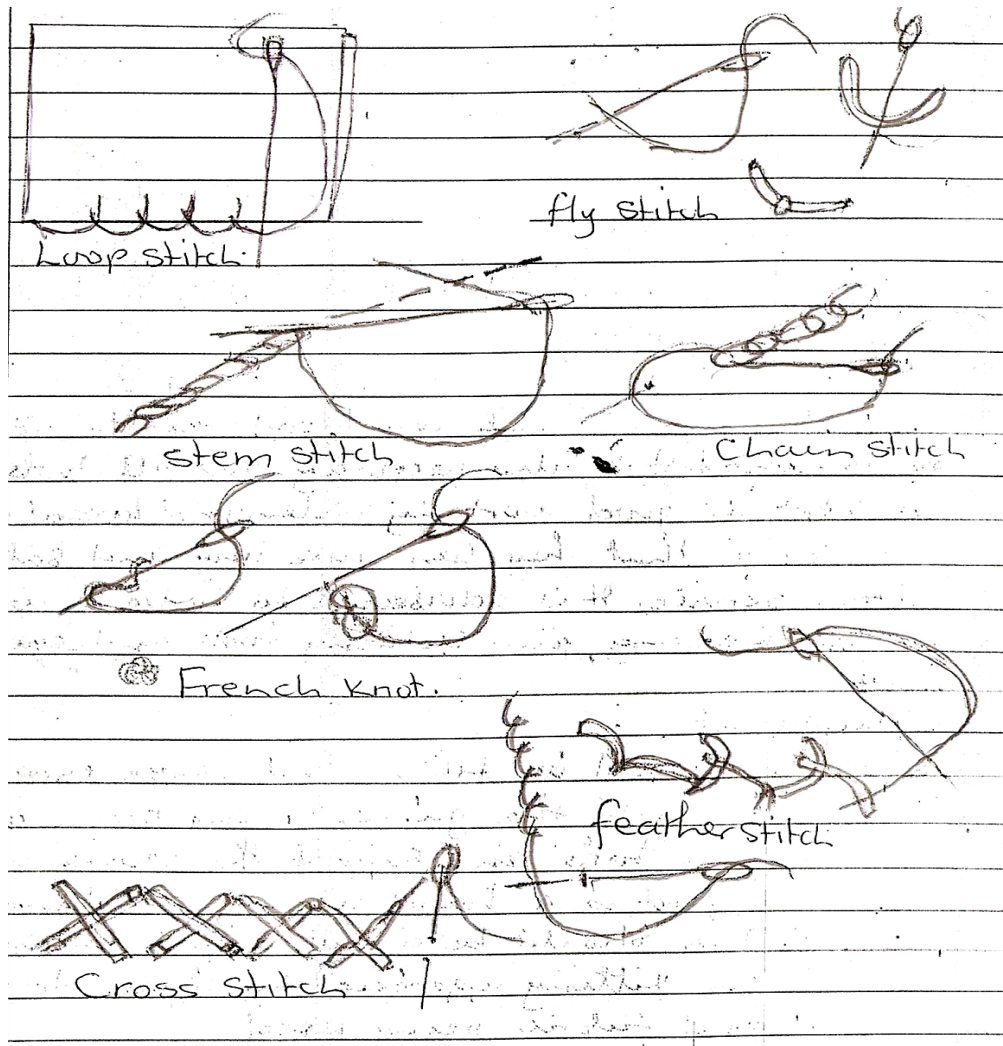
Decorative stitches

Decorative stitches also known as embroidery stitches are used to make article beautiful and attractive. They are also permanent stitches. There are different groups of decorative stitches and each have its own basic stitch which form the foundation for many variations of the stitch such as

1. Line stitches and filling stitches
 - Cross stitch
 - Chain stitch
 - Feather stitch
 - Satin stitch
 - And knot stitch
2. Edge stitches
 - Loop stitch

Fly stitch

Hem stitch



SUMMARY

The basic and decorative stitches are the various groups of stitches that are used in the production of garments. There are three major groups of stitches.

Temporary stitches- eg even tacking, long and short tacking, tailor tacking and diagonal tacking.

Permanent stitches- eg hemming, overcasting, back stitch, button-hole stitch, machine and blanket stitch.

Decorative stitches – chain stitch, French knot, stem stitch, satin stitch, cross stitch, fly stitch and leaf stitch.

Rules for working stitches:

- Choose the correct stitch for the work to be carried out.
- Use the correct size of needle.
- Wear a thimble on the middle finger of the hand.
- Work out one stitch at a time.
- Never use a knot for fastening a stitch.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 8: SELECTION AND CARE OF CLOTHING TOOLS AND EQUIPMENT

INTRODUCTION

Clothing tools are instruments that are held in the hand for making or replacing garments in the clothing and textile laboratory while clothing equipment are large solid items that are used for garment construction in the clothing and textile laboratory. The success of needle work and dressmaking at any stage depends largely on the type of tools and equipment used. Therefore, it is important to select good quality and durable clothing tools and equipment. For the tools and equipment to be able to serve the users satisfactorily and also last longer it is important that these tools and equipment should be properly selected and cared for.

OBJECTIVES

At the end of this unit, you should be able to:

1. Explain the term clothing tools and equipment.
2. State ten (10) examples of clothing tools.
3. Enumerate four (4) examples of clothing equipment.
4. Explain how to select and care for some of the clothing tools and equipment mentioned.

HOW TO STUDY THIS UNIT

- 4) Before reading through this unit, you should go through the word study.
- 5) As you read through, take note of unfamiliar words, check the meaning from your dictionary, home economics textbooks and the internet.
- 6) Study this unit step by step.

WORD STUDY

Study these words carefully before you read on:

TOOLS – as instrument that is held in the hand and used for making or repairing things.

EQUIPMENT – are large, solid things that are needed for a particular activity or purpose.

THE SEWING TOOLS

The sewing tools in a clothing and textile laboratory include the followings

- Scissors
- Needles
- Tape measure
- Metre stick
- Dressmaker pins
- Pin cushion
- Thimble
- Tracing wheel
- Gauge
- Shears
- Seam ripper
- Sewing box
- Thread

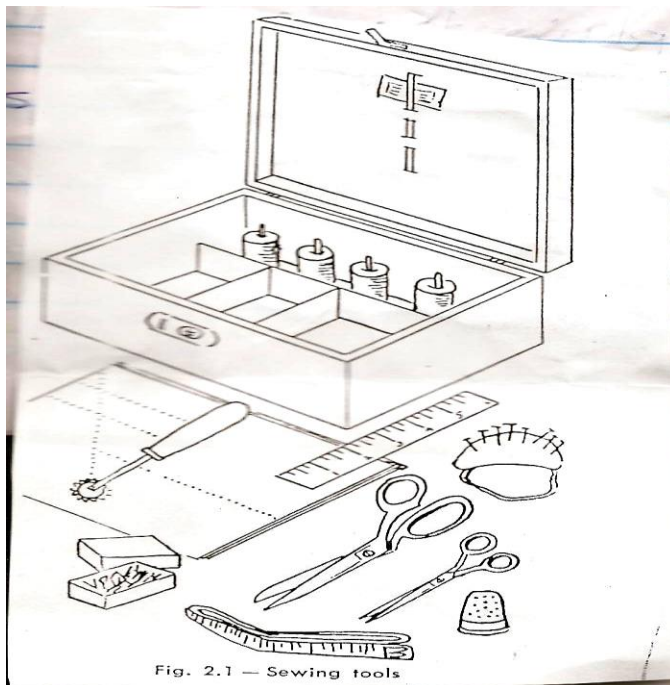


Fig 2.1 – Sewing tools

SELECTION AND CARE OF SEWING TOOLS

- ❖ **Scissors** – select scissors made of high quality steel.

Care – all steel cutting tools in a drawer to avoid dropping them on the floor as this will affect their blades and make them blunt.

- Do not use scissors meant for cutting fabrics for papers. A small scissors should be assigned for this.
- Protect scissors from rust.
- When the handle becomes hard apply machine oil to the joint.
- ❖ **Needles:** There are different types of needles used in clothing and textile laboratory.

Care: Select, shape, slender and medium length needles. Needles should be stored properly when not in use.

- Use pin cushion to hold needles.

❖ **Tape measure**

This is used for body measurement. Select a tape measure 60 inches long each end, and numbered so it can be easily read from either end.

Roll tape measure up when not it use and store in the sewing box.

❖ **Metre stick**

This should be of good quality, the plastic type is more durable.

Care: Wash the plastic type in soapy water when it is dirty.

❖ **Dressmaker pins**

Used for holding two or more pieces of material together. Choose pins that are rust proof and have sharp points.

Care: Use pin cushion to hold pins when not in use.

❖ **Pin cushion:**

Used for holding pins and needles. Select a small pin cushion with an elastic wrist band that is filled with wool or hair.

Care: Store in the sewing box.

❖ **Thimble:**

Thimble is a small cap-like metal or plastic worn on the finger to protect it from the needle when doing hand sewing. Select one made of some hard high-weight material and in a size to fit the middle finger comfortably.

Care: Thimble should be properly stored in the sewing box.

❖ **Tracing Wheel**

A tracing wheel is used with tracing paper to transfer pattern markings to cloths. The wheel points should be firm and fairly sharp.

Care: It should be properly stored in the sewing box.

- Avoid making the points rough.

❖ **Gauge**

It is used for accurate measurements of hems, seams and bindings. Select gauge that is clearly marked.

Care: Store in a small container to prevent it from bending or tearing.

❖ **Sheers**

Sheers are used for cutting clothes more satisfactory than scissors. Select sheers made of high quality steel which will hold a good cutting edge.

Care: Store in a drawer to avoid dropping on the floor.

- Protect the blades from rust.

❖ **Sewing box**

Used for storing sewing tools. Select sturdy box as a container for all sewing tools.

Care

- Arrange contents in the sewing box properly so that there is a place for everything.
- Keeping everything in its place, so that tools can remain in good condition.

❖ Thread

Select size and colour of thread based on the weight and colour of the fabric.

Care: Store properly in the sewing box.

SEWING EQUIPMENT

Sewing equipment used in clothing and textile laboratory are:

- i. Sewing machine
- ii. Table
- iii. Iron
- iv. Ironing board
- v. Mirror

a. SEWING MACHINE

This could be hand, treadle or electric. Select the best that can be afforded and easily operated

Care

- Read the instructor booklet before operating the machine.
- Metal plates should be removed periodically and dust and lint brushed out.
- Clean machine frequently.
- Oil machine according to frequency of use.

b. TABLE

Table is used for laying and cutting of pattern pieces and fabrics in the clothing and textile laboratory. Select table that are firm, smooth and of reasonable height.

Care

- Clean table surface daily

c. IRON

The electric iron with heat control is especially desirable for use during garment construction.

Care

- Keep the surface of the iron smooth and clean.

d. IRONING BOARD

Select ironing board that are smooth and well padded. It should stand firmly at the correct height for the worker.

Care

Cover ironing board with lint free material.

ACTIVITIES

Make an album showing the various types of sewing tools and equipment in the clothing and textile laboratory.

QUESTIONS

1. Define the term clothing tools and equipment?
2. State ten (10) examples of clothing tools in a clothing and textile laboratory?
3. List four (4) examples of sewing equipment?
4. Explain how to select and care for five (5) clothing tools and two (2) sewing equipment of your choice.

SUMMARY

Clothing tools are instruments that are used for making and replacing garments in the clothing and textile laboratory where as clothing equipment are large solid items used for garment construction in the clothing and textile laboratory.

Some examples of clothing tools are:

Scissors, needles, tape measure, dress maker pins, thimble, tracing wheel and thread.

Examples of sewing equipment includes:

Sewing machine, table iron and ironing board.

REFERENCE

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 9: GOOD GROOMING/CLOTHES FOR DIFFERENT OCCASIONS

INTRODUCTION

Good grooming is how you look and present yourself; it is one of the most important aspects of good living which should be learnt at an early age. Good grooming enhance one's self respect, personality and also expresses the character of a person.

There are many kinds of clothes that are worn by people. For special occasions, there are certain clothes that have to be worn. We have different clothes to be worn to different places. The clothes that are worn at home are different from when they go out. To go to school, students wear uniform. To go to office, we wear formal suits. To go to party, we wear dress, etc.

The clothes for hiking are different from the one we wear when going to beach. Basically, there are various types of clothes that are needed by people for different occasions, these include – clothes for work, school, recreation, party, etc.

OBJECTIVES

At the end of this unit, you should be able to

- 1) Define the term good grooming.
- 2) Explain good grooming standards.
- 3) List clothes that can be worn for party, office, sport and at home.

HOW TO STUDY THIS UNIT

- 1) Before reading through this unit, you should go through the word study.
- 2) As you read through, take note of unfamiliar words, check the meaning from your dictionary, textbooks and the internet.

WORD STUDY

Study these words carefully before you read on:

- Good grooming: The act of taking care of one's personal appearance.
- Good grooming standards: Are what people should do to be well groomed.
- Clothes: - These are garment worn to cover nakedness.

GOOD GROOMING STANDARDS

Taking care of one's personal appearance does not stop at having a bath with soap and water alone. There are various activities that need to be done in order to be well groomed. These include:

- Bathing with soap and water daily
- Using deodorant
- Brushing teeth well, gargle after drinking tea or coffee and use good branded toothpaste. It is also important to see a dentist once every 6 month and avoid be well shampooed and conditioned well at least twice a week. Set a good flattering hair style, keep the hair clean of dandruff and do not use huge amounts of oil on the hair.
- Flat a nutritionally balanced diet.
- Hands and nails should be clean and well cared for. Ensure that nails are not chipped and there is no dirt underneath.
- Apply makeup lightly. Eye makeup should not be too heavy and should be checked often that it is not streaking.
- Use light perfume on clothes.
- Wear eye glasses frame which flattens your eye and ensure that the eye glasses are clean often and not full of specks and grease-marks.

CLOTHES FOR DIFFERENT OCCASIONS

1. **CLOTHES FOR WORK:** They should be business-like and in good condition. They must be worn according to season. It should be discreet and well made suitable fabric which can be laundered easily.
2. **SCHOOL CLOTHES:** They should be well made, neat and hold their appearance, durable, colour fast and able to preserve their shape. They should be easy to clean, no frills and flanges or not too tight.
3. **CLOTHES FOR RECREATION:** They should be free and not cumbersome. Easy movement of the body. A pair of shorts worn and a blouse is most suitable. The fabric should stand frequent washing.
4. **PARTY CLOTHES:** Should be made from dressy fabrics and styles, it should be worn with suitable jewelry and accessories.

5. **CLOTHES FOR HOUSEHOLD WORK ACTIVITIES:** When working at home, it is important to dress neatly, you might be call on an emergency. They should be comfortable, suitable, washable and of simple style and durable fabric. An apron can be worn on it to prevent it from dirt.

ACTIVITIES

Make an album showing the diagram of all the items that can be used for taking care of one's personal appearance.

Students should produce an album showing pictures of clothes for different occasions.

QUESTIONS

- 1) What is good grooming?
- 2) List five (5) items that can be used for taking care of one's personal appearance?
- 3) Enumerate five activities that need to be done in order to be well groomed.
- 4) List the clothes that can be worn for the following occasions
 - (a) Party
 - (b) sport
 - (c) school

SUMMARY

Good grooming is how you look and present yourself; it is one of the most important aspects of good living, which should be learnt at an early age. It enhances one's self respect, personality and also expresses the character of a person.

Good grooming standards includes;

-Bathing with soap and water daily.

-Using deodorant.

-Brushing one's teeth well, gargle after drinking tea or coffee and use branded toothpaste.

-Eat a nutritionally balanced diet.

- Hands and nails should be clean and well cared for.

-Apply makeup lightly.

- Use light perfume on clothes.

-Wear eye glasses frame which flattens your eye.

Clothes are worn by people on different occasions, as such the clothes worn at home are different from those when you go out to school, office, parties and other ceremonial occasions.

Clothes can be categorized as occasion demands

-Clothes for work.

-School clothes/uniform

-Party clothes

-Clothes for household work activities.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 10: USE OF SEWING MACHINES (MANIPULATING, THREADING ETC)

INTRODUCTION

The three types of sewing machines available are hand, treadle and electric. Each of this machine has its mode of operation, the hand sewing machine is operated by hand, treadle by foot and electric by electricity. Before operating a machine it is important to:- place the machine where the light is adequate, free from glare and falls over the left shoulder.

- Use a chair high enough to allow the feet to be comfortable.
- Sit erectly and squarely in front of the machine.
- Raise the presser foot to keep it from resting on the feed dog.
- With rigid hand on the balance wheel, turn the wheel slowly forward (this sets the machine in motion).

OBJECTIVES

At the end of this unit, you should be able to

- (1) Explain the procedure for operating a treadle or electric sewing machine.
- (2) Explain how to thread a machine correctly.

WORD STUDY

PRESSER FOOT – a part of sewing machine that holds cloth firmly to the feed dog.

BOBBIN – used to unreel the lower thread.

SPOOL PIN – part of a machine that holds the spool thread.

FEED DOG – a part of sewing machine that feed the thread onto the cloth.

BALANCE WHEEL – a sewing machine part that is used to start and stop the machine.

ELECTRIC MOTOR – machine that converts energy from electricity into mechanical energy.

HOW TO OPERATE A TREADLE MACHINE

To operate a treadle machine, place one foot forward on the treadle and the other foot slightly back. With the right hand turn the balance wheel forward. The treadle will begin to move up and

down like a teeth-totter. As the treadle moves gradually apply pressure, first with the foot when is forward, then with the foot which is slightly back. Gradually withdraw the hand from the balance wheel. The pressure on the treadle keeps the machine, place a hand on balance wheel and stop the motion of the feet.

HOW TO OPERATE AN ELECTRIC SEWING MACHINE

An electric sewing machine is operated by knee or foot control of an electric motor. Start the machine by placing the right hand lightly on the balance wheel, turning it with the hand as you begin to press the foot or knee control of an electric motor.

THREADING MACHINE CORRECTLY

Machines commonly used for home sewing two threads – the bobbin thread and the spool thread. The bobbin is wind with thread first. Ensure that the bobbin is evenly wind and about three-fourth full before inserting into the bobbin case.

In most machines, the spool thread goes through a series of thread guides, around the upper tension, through the take-up lever and through more thread guides to the needle.

Bring the spool and bobbin threads together raise the presser foot and place the right hand on the balance wheel. Then holding the end of the spool thread in the left hand, turn the balance wheel until the needle goes down and comes back up as far as it will go. Pull the thread in the left hand. A loop will appear because the bobbin thread has been caught up by the spool thread (see fig 10a). Continue pulling the spool thread until the loop of the bobbin thread is lifted. Pull the bobbin thread through the hole and place both threads under the presser foot and to the back of the machine (fig 10b).

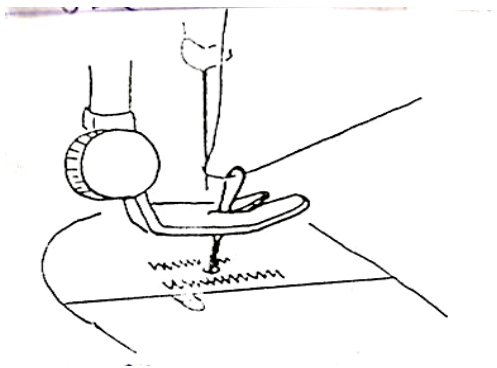


Fig. 10a. – Loop coming up

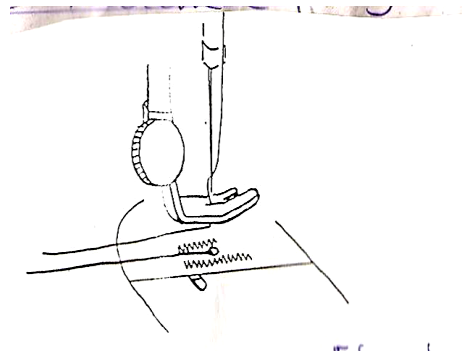


Fig. 10b – Machine ready to sew

HOW TO MAKE A GARMENT BY UNIT CONSTRUCTION

Most dresses have two main units, the blouse and the skirt. It is wise to start with the unit that has fewest construction details.

a. Back of blouse

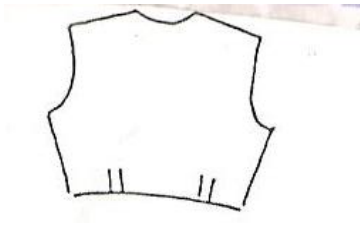


Fig. a – Blouse back

- 1) Stayline the neckline, shoulder, and armholes.
- 2) Stitch the darts (which are the only construction details on this part of the dress).
- 3) Fold this piece and put it aside to be pressed with other pieces.

b. Left Blouse

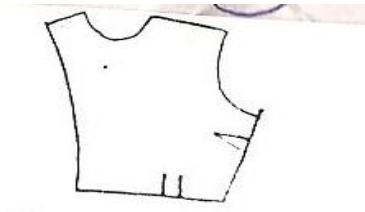


Fig b – Blouse, left front

- 1) Stayline the neckline, shoulder and armhole
- 2) Mark center front.
- 3) Stitch darts.
- 4) Finish edge of the facing with an appropriate finish.
- 5) Lay this pieces aside to be pressed late.

c. Right Blouse Front

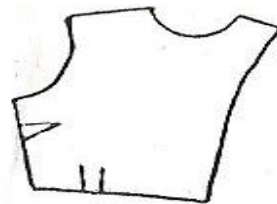


Fig. c – Blouse, right front

- 1) Repeat as directed for the left front
- 2) Baste stitch to mark buttonholes.
- 3) Press waist back and fronts.
- 4) Join shoulder seams.

d. Collar

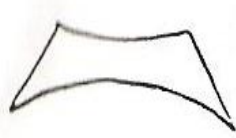


Fig. d – Collar and facing

- 1) Stay line collar sections.
- 2) Stitch collar to collar facing
- 3) Press collar and shoulder seams of the blouse.
- 4) Attach collar to blouse.
- 5) Stitch side seams of blouse and press.

e. Sleeve



Fig. e - Sleeve

- 1) Stay line sleeves
- 2) Gather between notches, over top of sleeve or cap.
- 3) Stitch under-arm seam
- 4) Item sleeves
- 5) Set sleeves into armholes, matching notches.

f. Skirt

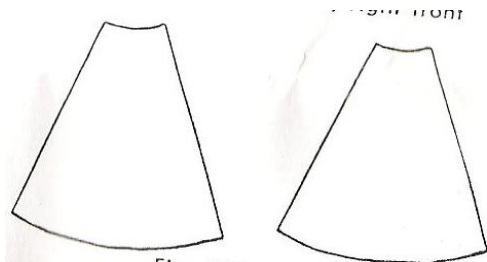


Fig. f – Skirt

- 1) Stitch center front and center back seams.
- 2) Stayline skirt pieces at waist and placket area.
- 3) If skirts are to be lined, check pattern directions to see if lining is to be stitched in side seam.
- 4) Stitch side seams.
- 5) Press skirt seams.

COMPLETING THE GARMENT

1. Join the waist to the skirt.
2. Make the placket.
3. Item the skirt.
4. Sew the skirt.
5. Give the whole garment a final pressing.
6. Make or buy an attractive belt.



Fig. g – Basic dress

NOTE: The general procedure outlined can be used for any, pattern of garment.

ACTIVITIES

Students to practice how to operate treadle and electric sewing machines.

Use any pattern of dresses to make a garment by unit construction.

QUESTIONS

- 1) Explain the procedure for operating a treadle or electric sewing machine.
- 2) Briefly explain how to thread a machine correctly.
- 3) Define the term unit construction and unit?
- 4) Indicate three (3) advantages of unit construction?

SUMMARY

The three types of sewing machines available are hand, treadle and electric machines. Each of those machines has its mode of operation.

Hand sewing machine.

Treadle by foot.

Electric by electricity.

Before operating a machine, it is important to;

Place the machine where the light is adequate, free from glare and falls over the left shoulder.

Methods of threading a machine correctly.

-Wind the bobbin with thread first.

-Bring the school and bobbin threads together.

-Raise the presser foot and place the right hand on the balance wheel.

-Turn the balance wheel until the needle goes down and comes back up as far as it will go.

-Pull the thread in the left hand.

-Continue pulling the spool thread until the loop of the bobbin thread is lifted.

-Pull the bobbin thread through the hole and pack both threads under presser foot to the back of the machine.

Most dresser have two main units, the blouse and the skirt. It is wise to start with the unit that has fewest construction details.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

MODULE 5: CLOTHING SELECTION AND MAINTENANCE

UNIT 1: PRINCIPLES OF WARDROBE PLANNING

INTRODUCTION

Wardrobe planning is the process of planning for the clothing needs of an individual or the entire family. Planning a wardrobe requires making many decisions which leads to wise planning. When planning a wardrobe, it is important to put certain factors into consideration, these factors are weather conditions, family standard, money available, the use of the clothes, colour plan and personal features of individuals or the entire family.

OBJECTIVES

At the end of this unit, you should be able to:

1. Define the term wardrobe planning.
2. State four (4) factors to be considered when planning a wardrobe.
3. Enumerate the step by step procedure for planning a wardrobe.

HOW TO STUDY THIS UNIT

- 1) Before reading through this unit, go through the word study.
- 2) Take note of unfamiliar words, look up in your dictionary, home economics book and internet for the meanings.
- 3) Study the unit step by step as it has been arranged for you.

WORD STUDY

Study these words before you read on.

Wardrobe planning: The process of planning for the clothing needs of an individual or the entire family.

Inventory: A detailed list of everything on hand.

Active wardrobe: Clothing that works well for an individual or the entire family.

Recycle: To treat things that have already been used so that they can be used again.

PRINCIPLES OF WARDROBE PLANNING

There are some factors that the individual must consider when planning a wardrobe.

1. Condition of the weather: Different weather conditions will dictate different types of clothes. Clothes should be worn for protection and comfort. There should be planning for winter/dry season clothing and for running season.
2. The standard of the family e.g. cleanliness can influence the number of clothes needed standard of the family can also influence the quality of dress one chooses.
3. Amount of money available: This determines the quality and quantity of clothing that should be purchased by family members. Money also determines whether family clothes are made at home, ready-made or commercial.
4. Reasons for which clothes will be used: Occasions for which clothes will be used should be considered e.g. for school, for work, for household, work on activities, sleeping clothes or night gown, for sport and picnics, for religious worship for parties/social get-together, underwear.
5. Colour plan: Colour scheme should be considered in wardrobe planning. Colours that fit other clothes in the wardrobe and suit one's complexion should be given a thought.
6. Personal features: One's figure type and complexion vary, therefore this should guide one in choosing a wardrobe e.g. size,

TO PLAN A WARDROBE, TAKE THE FOLLOWING STEPS:

STEP 1: Take an inventory of the clothes available. An inventory is a detailed list of everything on hand. Taking an inventory can help you analyze your wardrobe and learn which clothes are best suited for you and your lifestyle.

STEP 2: Assess clothes you have by dividing them into three groups:

Group A- clothes in good condition that you like to wear.

Group B- clothes that you like, but need to be repaired.

Group C- clothes that you don't wear because they no longer fit, beyond repair and not liked.

STEP 3: Make a list of the clothes in each group, noting the type and colour of clothing.

STEP 4: Consider which group has the most items A, B or C. The goal in wardrobe planning is to eliminate group B and C, so that you will be left with one group (Group A) an active wardrobe.

STEP 5: Repair all the clothing items in Group B and move them to Group A.

STEP 6: Take a closer look at the items in Group C, discard the clothing that is completely worn-out. The clothing items that are still good can be recycle to make other garments or accessories, make their garments into Group A.

ACTIVITIES

You should practice how to plan a wardrobe.

QUESTIONS

- 1) What is wardrobe planning?
- 2) State Four (4) factors to be considered when planning a wardrobe?
- 3) Explain the step by step procedure for planning a wardrobe?

SUMMARY

Wardrobe planning is the process of planning the clothing needs of an individual or the entire family.

Some factors to consider when planning a wardrobe includes;

- Family standard
- Money available
- Use of clothes
- Colour plan
- Personal features of individuals/entire family.

Procedure for wardrobe planning includes;

- Take an inventory of the clothes available.
- Assess clothes you have.
- Make a list of the clothes in each group.
- Repair all clothes that need repairs.
- Discard all clothing that are completely worn-out.

REFERENCE

Armstrong, M.Q., Kefgen, E.A (1971). Individuality in clothing selection and personal appearance. Macmillan Publishing Co. inc. New York.

UNIT 2: FAMILY SIZE AND CLOTHING NEEDS

INTRODUCTION

A family by the simple definition refers to parents (mother and father) and their children while family size on the other hand refers to the number of people that constitutes a family. A family could be small or large depending on the taste of the individuals involved.

Human beings move from one developmental stage to another as he/she grows. Each developmental stage has different clothing needs require to cope with the activities involved in each stage.

OBJECTIVES

At the end of this unit, you should be able to:

- 1) Define the term family size.
- 2) Explain the clothing needs of
 - i. An infant
 - ii. Adolescents
 - iii. Older adults.

HOW TO STUDY THIS UNIT

HOW TO STUDY THIS UNIT

1. Before reading through this unit, go through the word study.
2. Take note of unfamiliar words, check the meaning from your dictionary, home economics textbook and internet for the meanings.
3. Study the unit step by step as it has been arranged for you.

NOTE: ALL ANSWERS TO ACTIVITIES AND ASSIGNMENT ARE AT THE END OF THE BOOK

WORD STUDY

Study these words carefully before you read on:

Family size: The number of people that constitutes a family.

Infants: babies from birth to 1 year.

Toddlers: children at age 1 to 2 years.

School age children: children from 5 – 6 years.

Adolescents: people in the period childhood and adulthood,

Young adults: people between the ages of twenty-twenty one.

Middle age adults: people ages forty and fifty nine years.

Older adults: The last stage of life cycle. It begins around age sixty and continues through the remainder of a person's lifetime.

FAMILY SIZE AND CLOTHING NEEDS

The family is the basic social institution comprised of persons united by ties of marriage, by blood by adoption, by common consent and characterized by common residence and economic cooperation. In every society, the family is the recognized unit which assumes the functions of child bearing, of rearing and regulating the behavior of children, and providing for their economic growth or support. There are many kinds of family units all over the world, but their needs are mainly the same. In Nigeria, there are three main types of family units and these are the nuclear family unit. As these differ in unit that is how their needs would be difference.

Family members differ in various ways such as age, sex and occupational needs vary accordingly. For instance, the toddlers need would be different from adolescents, boys, girls, father and mother, their clothing needs would be in different forms.

The family size is determined through the type of family they are and this will guide in the provision of clothing needs of the family.

CLOTHING NEEDS OF FAMILY MEMBERS

- **Infants:**

The clothing needs of infants include diapers, washable cotton or paper disposable form, waterproof parts, night wears, socks, caps, sweater, dresses bibs etc. Babies cloth should be soft lightweight, absorbent and washable.

- **Toddlers:**

Toddlers need clothes that are loose, and can take a rough and tumble life. Fabrics that resist soil and wrinkle and are easy to clean are best for them.

- **School aged children:**

School aged need clothes that grow with them and hold up under rough condition. Clothing that are loose fitting with bright colours and special designs are suitable for children at this stage

- **Adolescents**

Clothing needs of adolescents take on a new meaning. Most of adolescents clothing choices are influenced by what a famous person wears. The style of a garment is more important to an adolescent than how it fits.

- **Young adults**

Young adults require clothing for their jobs, leisure time, sports and other activities. The clothing for young adults should allow room for bending, sitting and shoulder movement.

- **Middle aged adults**

Middle aged adults require clothings that suit their activities and will also make them attractive. They also require clothings that hide figure changes and suitable for their complexion.

- **Older adults**

Older adults need clothes that suit their lifestyles, fit their figures and are comfortable. Garments with loose collars and sleeves are often preferred by both older men and women. They also require fabrics that are soft that will not irritate their skin and warm fabrics in cold weather.

ACTIVITIES

Produce an album showing specimen of clothes suitable for an infant, adolescent and older adult.

QUESTIONS

1. What is family size?
2. Briefly explain the clothing needs of an infant, adolescent and older adult.

SUMMARY

A family refers to parent (mother and father) and their children, it is the basic social institution that is recognized in every society and is responsible for child rearing, regulation of children's behavior as well as economic growth and support. The family can be categorized into various age groups which includes; infants, adolescence and older adults.

Family size is the number of people that constitutes a family, it determines the extent to which needs are met especially clothing needs.

Infants require warm clothings (socks, caps, and sweaters) as well as diaper. All clothings of infants must be soft, light weight, absorbent and washable.

For adolescents, clothing choices are dependent in what is in vogue, they are easily influenced by the media, peers and famous individual's wears.

Whereas for adults, they prefer clothing that suit their lifestyle and make them look attractive as well as comfortable.

REFERENCE

Armstrong, M.Q., Kefgen, E.A (1971). *Individuality in clothing selection and personal appearance*. Macmillan Publishing Co. inc. New York.

UNIT 3: FACTORS AFFECTING FAMILY CLOTHING CHOICE

INTRODUCTION

When you wake up each day to set out for the day's activities, you will surely think about what you will need to do during the day. This will guide you on how to get dressed. Such thoughts as your schedule for the day, a part-time job or special occasion you need to attend should be considered. Sometimes you have a wide choice of clothes that you could wear. Sometime the choice of clothes to wear on a day may be made for you by other people around you, or choice may be limited, this makes your choice easier. Nevertheless, when your choices are unlimited, how do you decide the clothes to wear?

OBJECTIVES

After studying this unit, you should be able to:

1. Identify what influences your clothing choices.
2. List three (3) other factors that guide the family in making choices for clothing.

HOW TO STUDY THIS UNIT

- i. Read through this unit carefully.
- ii. Note the factors that guides family clothing choices.

WORD STUDY

1. Personality: Your unique quality e.g. your attitude and behavior.
2. Values: What you treasure and willing to spend money on.

ACTIVITY

- State what influences your clothing choices.
- List three (3) other factors which guides the family in making clothing choices.

FACTORS AFFECTING FAMILY CLOTHING CHOICE

Your clothing choices depend on many things. Some of these include:

- a) What you plan to do: For example on Saturday morning, you may put on your casual clothes and a bathroom slippers because you have your house. If you have a wedding ceremony to attend, your choice of clothes for that day will definitely be different. In this case you have to dress for an occasion.

b) Who will be with you?

When you plan to be with is another important influence on your clothing choice. Will you be with your family or best friend, your boss or head of department, you need to choose such clothes that will make you feel comfortable in the company you are in.

c) Your mood: Your mood will affect your clothing choices for the day. If you are happy and cheerful, you may reach for bright, bold colours which will reflect the way you feel. If you are feeling down, you may unconsciously select a darker colour.

d) Personality: This is a consideration of all your unique activities. This is indicated through your attitude and behavior. It directly affects your clothing choices. Are you outgoing and talkative or quiet and shy? Are you confident or unsure of yourself? Your personality also influences your style of clothing that you prefer.

e) Your values: Values influence your clothing choice, how much clothes mean to you, what values do you take into account when you make clothing choice? The way you regard wealth practicability and appearance are examples of values.

There are many other factors and these varies according to individual family. Some of these factors are:-

1. The money at hand.
2. The demands of the people who are still very active are higher.
3. The family budget.
4. Provision for variety of occasions such as formal, informal, sports, work and leisure.
5. Positions held by the individuals in the family.
6. The age of the individual in the family.
7. Individual difference in the family i.e. men, women, boys, girls, etc.

SUMMARY

Your clothing choices depend on many things, such as what you plan to do, who you will be with it, your mood, your personality and your values. These will guide you on making adequate choice of clothes to wear each day.

REFERENCE

Weber, J. (1990) Clothing: Fashion, Fabrics, Construction. Glencoe/McGraw-Hill. USA.

UNIT 4: FAMILY CLOTHING NEEDS

INTRODUCTION

We need to consider how being a part of a family can affect our clothing needs, wants, purchases and responsibilities. Various factors such as occupation, location, activities and interests, family structure affect the clothing needs of the family. We need to recognize how family values, goals and responsibilities influence clothing decisions.

OBJECTIVE

After studying this unit, you should be able to:

1. State the methods used in meeting family clothing needs.

HOW TO STUDY THIS UNIT

- i. Read through this unit carefully.
- ii. Observe the factors that guide the family in choosing clothes for each family member.

WORD STUDY

Occupation: How the individual member of the family is occupied or employed e.g. student, home maker, teacher.

Family structure: Number in the family, age of each family member and relationship of family members.

Every family has certain clothing needs. These are based on several factors, such as occupation of family members, location, activities and interests and family structure. Therefore the lifestyle of the family and family members affects clothing decision.

Occupation – every family member has an occupation. This may be working outside the home, working in the home or going to school. A family member going to school or the one working at home will not probably need as many variety of clothes, as a person who works in an office or in a retail store. A person who works outside the home will have very different clothing needs than the person who works inside.

Location – where the family lives also influences clothing needs e.g. people who live and work in colder climates will have different needs than those who live and work in warmer climates. Warm weather clothes are needed by those living in Sun Belt. The type communities in which

the family lives can affect its clothing needs e.g. those living in cities need dressier clothes than those who live in village or in rural communities.

Activities and Interests – How the family spends, its time will also influence their clothing needs. Family hobby, leisure activities, those who go to camps for relaxation, those who attend cultural activities will have different clothing needs.

Family structure – This means the number, age and relationship of family members. The more members in the family the more demands that are placed on the resource of the family. Within the family we have children (Young, school, teenagers or adolescents). We may also have retired people in the family. The family structure will determine the clothing need of the family.

Family values – Some families place a special value on gifts that are handmaid than purchased items. Some families value easy care in their clothing. Many families have certain traditions or customs associated with clothing e.g. the igbos and the yorubas in Nigeria. They may wear certain articles of clothing that relate to their family heritage.

Family goals - Both family and individual goals influence priorities or preferences relating to clothing.

At times, families may decides that certain goal, such as buying a car is very important. Therefore, it may be necessary for all family members to limit their clothing purchases.

ACTIVITIES

State the five (5) factors that guides the family in meeting their clothing needs.

SUMMARY

Several factors do affect or guide the family in deciding the clothing needs of the family. Such factors as occupation of each family member, where the family lives or work, the activities and interests of the family, the family structure, what the family values and the goals of the family should be considered.

REFERENCE

Armstrong, M.Q., Kefgen, E.A (1971). Individuality in clothing selection and personal appearance. Macmillan Publishing Co. Inc. New York.

UNIT 5: CONSUMER EDUCATION RELATED TO CLOTHING AND TEXTILES

INTRODUCTION

A consumer is one who purchases and uses goods and services. Since we all acquire goods and services, we are all consumers. It is important that every consumer should be well informed about the goods and services available. The process of helping individuals become consumer education.

The first step in making clothing decision is to gather information about what is actually needed as follows:

- 1) Where to shop
- 2) When to shop
- 3) Which stores have the type and varieties of clothes required
- 4) What price ranges are available.

The above information can be obtained by listening to reading advertisements, by comparison shopping and by asking friends and family members.

OBJECTIVES

At the end of this unit, you should be able to:

1. Define the following
 - i) Consumer
 - ii) consumer education
 - iii) impulse buying
2. State the avenues by which consumers can be informed about clothing.
3. Explain how to avoid impulse buying of clothing items.

HOW TO STUDY THIS UNIT

- 1) Before reading through this unit, go through the word study.
- 2) Take note of unfamiliar words, check their meaning in dictionary, home economics books and internet.
- 3) Study the unit step by step as it has been arranged for you.

WORD STUDY

Study these words carefully

Consumer – one who purchases and uses goods and services.

Consumer education – the process of helping individuals become informed consumer.

Impulse buying – purchasing something that you did not intend to buy.

CONSUMER EDUCATION RELATED TO CLOTHING AND TEXTILES

A consumer is a person who uses goods and services such as buying, sewing and wearing clothes. He/she needs education about the goods and services available as well as information about how he should behave in the market. The education provides the knowledge necessary to make individuals responsible citizens and intelligent users of goods and services.

PRINCIPLE OF CONSUMER EDUCATION

The basis for consumer education is to make individuals become more skilled and rational buyers of textile materials and clothes for personal and family use because the present and future needs of consumers is more demanding than it was on our forefathers.

There are problems in buying, using, servicing and maintaining manufactured goods. Today, there are many synthetic fabrics which come in different designs, styles and colours. These create a difficulty in making a rational selection that will suit one's needs while in the market. The consumer's life is greatly affected by advertising through the television, newspaper, radio and magazines. These adverts have positive and negative effects on how to make decisions when buying advertised goods and services. Consumer should be informed about any new products available in the market about clothing and textiles. So, consumer should be educated on the skills required for spending money through wise budgeting. Needs are materials necessary to sustain life while wants are goods and services which give pleasure and meaning to life. The education and skills are required to fulfill these needs and wants as well as for identify goods and values.

HOW TO AVOID IMPULSE BUYING OF CLOTHES

Impulse buying is purchasing something that you did not intend to buy. The following factors should be considered before purchasing clothes:

1. The need – Before embarking in the purchase of any type of clothes, one needs to ask the following questions:
 - Is the article needed for social prestige
 - Is it needed for the replacement of a worn out garment? Or
 - Just a garment for a date. Buying of clothes should be based on need and not wants.
2. Money available and the budget – it is important to consider the money available for purchasing clothes in the family budget.

3. Shopping ability – it is necessary to recognize qualities which meet the purchase requirements and to be able to correlate quality and price.
4. Consider the cost in time, money and labor in keeping the dress good looking.
5. Compare prices – check on prices in other stores if possible and ensure that you do not pay an exorbitant price for a dress that is available elsewhere in the same quality but at a lower price.
6. Plan for the shopping in advance and make a list of what is really required. If possible carry samples of accessories to be considered. A dress that does not blend into the wardrobe is not worth buying.

ACTIVITIES

Read newspapers to get valuable information on varieties of clothes available in the market and how to check for quality.

QUESTIONS

- 1) Define the following – consumer, consumer education, impulse buying?
- 2) State three avenues in which consumers can be informed about clothing.
- 3) How can a consumer avoid impulse buying of clothes?

SUMMARY

Consumers are individuals who purchase and use goods and services while consumer education refers to the process whereby knowledge/skills about goods and services for personal and family use are obtained.

Impulsive buying on the other hand is the act of purchasing items without a prior intention to do so.

Consumers can be informed about clothing through adverts on television, magazines, newspapers, radios, facebook, emails etc.

It is important that consumers guard against impulsive spending by ensuring that following things are considered; that the item is needed and not wanted, the money involved is budgeted for, quality and price of the clothing correlate, cost of maintenance of the clothing is reasonable and the price is affordable.

REFERENCE

Weber, J. (1990) Clothing: Fashion, Fabrics, Construction. Glencoe/McGraw-Hill. USA.

UNIT 6: STAIN REMOVAL

INTRODUCTION

Stains are areas where dirt is concentrated. It can also be defined as a spot or a mark made on a fabric which gives a colour that is different from the rest of the surface of the fabric.

The various of types of stain that can affect fabrics are:-

1. Animal stains – These are caused by blood, milk, egg, mucus and urine.
2. Vegetable stains – These are stains caused by fruits, beverages and grass bear, wine and tomato juice.
3. Mineral stains – These are stains caused by ink, rust, coal tar, paint, tonic, medicines and shoe polish.
4. Grease stains – These can either of vegetable origin such as palm oil, groundnut oil, coconut oil, palm kernel oil or mineral such as motor car oil or animal origin like cod-liver oil, butter.
5. Wax stains – These are caused by candle, lip sticks, latex and chewing gum.
6. Mildew stains – These are caused by dampness and appear in form of small dark grey spot.
7. Perspiration stains – These are caused by sweat.

OBJECTIVES

At the end of this unit, you should be able to –

- 1) Define the term stains.
- 2) State four (4) types of stains.
- 3) Explain how to remove the following stains on fabric:

Blood stains, biro stain, chew gum stain, perspiration stains, oil stain.

HOW TO STUDY THIS UNIT

- 1- Before reading through this unit, go through the word study.
- 2- Take note of unfamiliar words look up in your dictionary, home economics books and internet for the meanings.
- 3- Study the unit step by step as it has been arranged for you.

WORD STUDY

Study these words before you read on.

- **Stains** – These are areas where dirt is concentrated spot or a mark on a fabric which gives a colour that is different.
- **Animal stain** – caused by blood, milk or egg.
- **Vegetable stain** – caused by fruits, beverages etc.
- **Mineral stains** – caused ink, rust or coal tar.
- **Grease stains** – caused by palm oil, motor car or cod-like.
- **Wax stains** – caused by candle or lip stick.
- **Mildew stains** – caused by dampness.
- **Perspiration stain** – caused by sweat.

General guidelines for stain removal.

1. Stains should be removed as soon as they occur.
2. Do not rub the stain into the fabric.
3. Consider the type of fabric before choosing a stain removing agent and method.
4. Always start with mild treatments and work up to the more drastic ones.
5. When you are not sure whether a garment or dye can withstand a particular stain removal try it out first in some hidden parts of the garment.
6. After a stain has been removed, washed out every trace of the removal used.

PROCEDURES FOR STAIN REMOVAL

1. Blood – soak in cold salt water and in a solution of an enzyme stain remover (e.g. Biotex) rub well and wash.
2. Milk – Soak in cold water to remove the albumin wash in hot soapy water to remove the grease.
3. Coffee, tea, cocoa beverages: Dissolve caustic soda in hot water for cotton and linen dip stains in this solution and leave for 20minutes if stains remain use chlorine bleach then rinse well.
4. Biro ink stain: For white fabric, use warm dilute solution of potassium per manganate followed by hydrogen peroxide bleach for colour cloths, use turpentine or petrol to wash.

5. Oil: Scrape off as much as possible. Rub in turpentine: Rinse thoroughly with solvent. Then wash the article in water that is as hot as the article can.
6. Perspiration: If it is fresh wash immediately according to fabric. For other stains treat with solution of ammonia. Then use hydrogen peroxide to remove any stains.

ACTIVITIES

You should practice how to remove blood and stains from fabric.

QUESTIONS

1. What do you understand by the term stain.
2. List four (4) types of stains.
3. Explain how you can remove biro stain, palm oil stain and perspiration stains.

STAIN REMOVAL

Stain is a different colour found on clothes which causes damages on the background of the clothes. Stain spoil the appearance of the clothes. With attractive articles, special effort should be made to remove it when it occurs.

Stain removal is a cleaning agent used in removing unwanted colour found on the original background of the clothes. Any article selected for washing must be examined for any possible stain before washing them. Most of the stains can be removed easily by washing the clothes but a few of them need special treatment. It is easier to remove stains as soon as they occur rather than waiting until they become dry.

Difficult stains may be removed with chemicals but these should be used with caution as some fabrics may not withstand chemicals and some of these chemicals that are good include the following:

- a. Benzene – This is good for removing grease.
- b. Carbon tetrachloride – This is used for stubborn stains and grease spots.
- c. Glycerine – This is used for loosening vegetable stains.
- d. Turpentine – This is also used for removing paint stains and other sticky stains.

There are different types of stains but the most common ones are:

- i. Vegetable stains from juices, glass, tea, coffee coca and beer.
- ii. Protein stains from blood, eggs and milk.
- iii. Grease stains from hair oil, fats and lip stick.
- iv. Paint stains from paints, nail varnish and tar.
- v. Other common stains from ink, sweat or perspiration and mould.

Therefore, stains cab be removed through different methods by stain removing agents.

SUMMARY

Stains are areas where dirt is concentrated, it could be a sport or mark made on fabric which gives it a colour that is different from the fabric. Basically, there are several types of stains namely; animal stains, vegetable stains, mineral stains, grease stains, wax stains, mildew stains and perspiration stains.

Stain removal can be achieved by washing clothes but a few of them need special treatment, it is easier to remove stains as soon as they occur than waiting until they become dry. Various methods depending on the type of stain can be used to remove stains, they include the use of chemicals such as; benzene for removing grease, glycerine for vegetable stains, turpentine for paint stains and other sticky stains.

REFERENCE

Armstrong, M.Q., Kefgen, E.A (1971). Individuality in clothing selection and personal appearance. Macmillan Publishing Co. inc. New York.

UNIT 7: LAUNDRY AGENTS, PROCESSES IN HOME LAUNDRY, COMMERCIAL DRY CLEANING

INTRODUCTION

The art of washing cloth is simply defined as laundry. Many different kinds of laundry agents are available for washing clothes, these are: - detergent soaps, bleach, enzyme presoak solutions, disinfectants, water softeners and fabric softeners. Any of these laundry agents can be used for home laundry, which has some procedures and processes to be followed. It is a known fact that some clothes/garments cannot be washed at home, these types of clothes/garment require to be dry cleaned.

OBJECTIVES

At the end of this unit, you should be able to:

1. Explain the term “laundry”
2. List four (4) laundry agents.
3. Explain the processes and procedures for home laundry.
4. What the term commercial dry cleaning means?

HOW TO STUDY THIS UNIT

1. Before reading through this unit, you should go through the word study.
2. As you read through take note of unfamiliar words, check the meaning from your dictionary, home economics textbooks and internet.

WORD STUDY

Study these words carefully before you read on.

Laundry – The act of washing clothes.

Laundry Agents – These are detergents, soaps, bleach, water, blue etc.

Commercial Dry Cleaning – It is a method of cleaning clothes with special dry cleaning solvent and finishes.

LAUNDRY AGENTS

- Detergents – The primary job detergent is to remove dirt from clothes. They also aid in removing grease from clothes.
- Soaps – Soap perform the same function like detergents.
- Bleaches – Used to make white cotton article whiter and to remove stains.
- Enzyme – presoak solution – Help remove such protein stains as egg, meat, juice and blood.
- Disinfectant – Helps to kill bacteria in clothes.
- Water softeners – Softens hard water which has mineral deposits that prevent thorough cleaning.
- Fabric softener – Helps to soften fabric and reduce wrinkling.

PROCEDURES AND PROCESSES IN HOME LAUNDRY

PROCEDURES –

1. Check clothes for needed repairs and stains.
2. Mend clothes and treat the stains.
3. Close zippers, remove jewelry and non washable trims, empty pockets and turn garment wrong side out.
4. Sort clothes according to fabric.
5. Steeping or soaking of clothes.
6. Washing.
7. Drying of clothes.
8. Ironing and airing of clothes.
9. Storage of clothes to reduce wrinkling.

PROCESSES

1. Fetch water to cover garment in a bucket.
2. Put detergent in water before adding clothes.
3. Gently squeeze the soap and water through the clothes.
4. Rinse thoroughly with cool, clean water.
5. Gently squeeze the water out of the clothes. Don't wring or twist, dry under shade.

ACTIVITIES

Students should carry out practical work on laundering a garment.

QUESTIONS

1. What is the meaning of laundry?
2. List any four (4) laundry agents.
3. Explain how to carry out the laundry processes and procedures.
4. What do you understand by the word commercial dry cleaning.

LAUNDRY AGENTS

Laundry agents are all those substances used in cleaning the clothe when they are dirty such as soap and soapless detergents, water, blue, starch and stiffening agents, bleaches and stain removals.

PROCESS IN HOME LAUNDRY

Laundering is an essential routine of every home and it must be well managed for its success. Every family member must know when to put dirty clothes for washing. A day should be set aside for the family wash when there will be little interruption. This must be early enough in the week when the clothes can be dried and finished for storage. Good planning is very necessary in family wash, so consider the equipment, the materials and spaces available. These involve:- basins, baths, buckets, laundry brush, clothes hangers and pegs, boiler bags, clothes baskets, clothes lines, ironing table, ironing blanket, iron sheets, skirt board, dampening cloth, pressing iron, iron stand and washing machine.

A times, some of the dry-cleaners used washing machine but in most cases hand washing is what most dry-cleaner use.

Washing machine may be of the spin-dry type comprising or rustless tub into which the hot and softened lather water and the clothes are placed. The clothes are moved through this water by an agitator or plusator. The cleaning takes place by the movement of the soiled articles going the lathered water. In using washing machine, rules to be kept or bear in mind in sorting out clothes into groups according to the way the fabrics are to be washed and also to different types of fabric. These are:

- i- White cotton
- ii- Coloured cotton and linen
- iii- Synthetic blends with cotton

Note :

- Ensure that pockets are empty, close zips, remove broken buttons or anything which might cause damage. Mend any holes or torn parts.
- Do a colour test on the garment, if it the first time of washing.
- If the colour runs, used dry cleaning method.

METHOD OF LAUNDERING PERSONAL CLOTHES

Most of the fabric are produced with different forms or techniques and these require different methods of washing. Once a homemaker understands this and be able to carry out the different methods of laundering clothes, it will improve the financial management of the family income.

Methods of laundering involve the following processes: -

- i. Removal of surface dirt.
- ii. Steeping and soaking.
- iii. Washing of the clothes.
- iv. Rinsing of the clothes.
- v. Blueing of the clothes.
- vi. Drying of the clothes.
- vii. Finishing of the clothes.

LAUNDERING

The management of family wash is one of the activities a homemaker must carry out in the process of managing a home. This involves keeping the clothes and other household articles clean and get them ready for the subsequent use by the family members for any occasion.

Laundry work simply means washing, drying, ironing and storing of clothes. The laundry work could be done in the home or in launderette. The family wash includes all the personal clothes of the family members:- father, mother, children as well as the household articles such as bedsheets, pillow cases, blankets, table cloths, table napkins, bath towels, face towels, curtains, cushions, cushions covers, head rests, hand rests, etc.

LAUNDERING AND LAUNDRY AGENTS

Laundering is the process of keeping clothes clean and neat through washing, drying and ironing. Each of these three aspects of laundering has its own methods for achieving good results. Reasons for laundering clothes include the following:

- i. To remove dirt and perspiration on the clothes.
- ii. To keep the clothes fresh and prolong the life span of the fabric.
- iii. To make the clothes look clean and attractive every time they are worn.
- iv. It is part of good wardrobe care and management and also helps the housemakers home to look refreshing and attractive.

SUMMARY

Laundry refers to the act of washing cloth, examples of laundry agents available for washing clothes include; detergent soaps, bleach, enzyme presoak solutions, disinfectants, water softeners and fabric softeners. Many of our clothings are usually washed at home, hence the procedure for home laundry include; check clothes for needed repair and stains, mend clothes and treat the stains, close zippers, remove jewelry and non-washable trims, empty pockets, sort out clothes according to fabric, soak clothes, washing and drying. Finally, ironing and storage of clothes to reduce wrinkling. Commercial dry cleaning is the method of cleaning clothes special dry cleaning solvent and finishes which may involve the use of a washing machine.

REFERENCE

Armstrong, M.Q., Kefgen, E.A (1971). Individuality in clothing selection and personal appearance. Macmillan Publishing Co. inc. New York.

UNIT 8: RENOVATION AND REMODELING OF CLOTHES

INTRODUCTION

Renovation simply refers to the act of improving on the present state of an article or a garment. Renovation could also mean making new things out of old garments, for example, making a child's garment out of a mother's old clothes or a boy's pair of shorts out of a mother's woolen shirt or fathers' pair of trousers. Renovation can be carried out in clothing by re-construction, re-modeling, re-colouring and repairing.

OBJECTIVES

At the end of this unit, you should be able to:

- 1) Differentiate between renovating and remodelling
- 2) State the four methods of renovating clothes.
- 3) Give three (3) guidelines to be followed when renovating clothes.

HOW TO STUDY THIS UNIT

- 1) Before reading through this unit, go through the word study.
- 2) Take note of the unfamiliar words, check for their meanings in your dictionary, home economics textbook and internet.
- 3) Study the unit step by step as it has been arranged for you.

WORD STUDY

Study these words carefully, before proceeding:

Renovating – The act of improving on the present state of an article or a garment.

Remodeling – The act of changing out of fashion garment into a garment in current style. For instance changing a flared blouse into a tight fitting blouse in fashion.

Recolouring – Refreshing faded colours of clothes the colour of the old garment completely. Sometimes a person gets tired of the colour of a coat or dress change the colour to make it look **fresh and new**. This could also apply to household soft furnishing (curtains, bedsheets, etc).

Re-construction –This is done primarily on needy make clothes which do not fit the individual. The garment could have any of the following faults – too long bodice, too wide bodice, too wide hip, too long sleeves.

Repairing – act of prolonging the life span of an article and also make it look attractive by repairing zippers ripped seams, tears, replacing buttons and mending button holes.

GUIDELINES FOR RENOVATION

- 1) The garments for renovation should not be too old.
- 2) Got through the wardrobe or suitcase and decide on the garments to be renovated and what can be made out of them. For example
 - a. A bedsheet could be made into cot sheets or draw sheets, inner pillow slips and damping rags.
 - b. An old table cloth could be cut up and made into table napkins and pot holdens.
 - c. An old bath towel could be made in to face flannels, a hand towel or a dog's towel.
 - d. Mother's floral skirt could be made into a girl's dress or night dress.
 - e. Father's trouser could be made into a boy's shorts.
- 3) The old garment should be taken apart, laundered and dried.
- 4) The grain of the old fabric should be studied to make laying out of pattern pieces for the new garment easy.
- 5) The new garments should go through all the processes e.g. attachment of sleeves, setting cover, openings and fastenings etc.
- 6) The new garments can be made attractive by the use of sewing accessories such as lace.
- 7) The garment should be suitable for the purpose for which it is intended.

ACTIVITIES

Produce a girl's dress or night from your old skirt.

QUESTIONS

- 1) What is renovation?
- 2) State the four methods of renovating clothes.
- 3) Give three guidelines to be followed when renovating clothes.

RENOVATION AND REMODELING OF CLOTHES

The life of a garment can be extended and its appearance preserved with proper care. Renovation is the art of making something from something old. In clothing and textiles, new and useful garments can be made out of old and discarded garments by remodeling and reconstruction; old and faded garments and articles can be made new by dyeing and tinting them.

Many people are in the habit of discarding old clothes especially when they are in a position to replace them without any strain on their purse. They feel that when a garment has served its original purpose, it is no longer useful. Such a garment may not be torn or faded, it could have been outgrown by the wearer or no longer needed for its original purpose and a times may be out of fashion of the day. Much use can still be made of such a garment if one has the imagination and initiative to plan and organize so that success can be achieved in the making of something new from something old. If there are little children growing up at home, discarded dresses could be renovated or remodeled for the children's used. Such garments could be stored out into the following three groups after a good check on the wardrobe: -

- i. Dresses that can be worn i.e. dresses that are still good in colour, fitting and fashion.
- ii. Dresses that could worn out but
 - (a) They have been outgrown by the owner.
 - (b) They have been destroyed by insect.
 - (c) They have lost their colour.
 - (d) They are out of fashion.
 - (e) The owner may just be tired of wearing them.
- iii. Dresses that have outlined their usefulness. Dresses in group two and three can be renovated with satisfaction. It is important to make sure that the renovated dresses can be used for a considerable length of time, to make the time and energy spent in the renovation worthwhile. Mother's old wrapper can be made into a dress for a girl, a jumper for boy or an apron for an aunt e.g

Old Clothing	New/Renovated Clothing
Wrapper	Apron, girl's dress, boys jumper or shirt
Mother's skirt	Boy's shorts, children's romper, girl's dress, girl's nightdress, girl's blouse/sun dress
Father's trouser	Boy's shorts or trousers

Bed sheets	Cot sheets, inner pillow ships, dust sheet
Table linen	Table napkins, tray cover
Blankets	Cot blankets, polishing cloth, cover for ironing table, under blanket
Terry toweling	Face fannel, bath mats, lavatory towels, dust sheets, children's bedcover

STEPS IN RENOVATION

1. Decide on the garment to be made and make sure the old material will be enough for the new one.
2. Prepare the old garment in the following way:
 - a) Rip off the seams, collar, sleeves, hem
 - b) Tack the pieces together
 - c) Wash the old garment pieces and iron them flat
 - d) Adjust the pattern
 - e) Lay out pattern pieces on the fabric avoiding the very worn parts of the garment e.g. underarm, knee, round the burst etc.
 - f) Cut out and tailor take
 - g) Take the pieces and fit
 - h) Adjust the tacking if necessary
 - i) Machine stitch the following the order of making up garments, style features and trimmings could be incorporated to brighten the renovated and make it really look new e.g

Features

Collar

Sleeves

Pockets

Trimming

Ricrack tape

Lace

Buttons and buttonholes frills.

Renovated or remodeled garments should reflect as many dressing processes possible, e.g. seams, edge finishes, openings and fastenings, etc.

SUMMARY

Renovation refers to the act of improving on the present state of a garment. It involves making new things out of old garments e.g. making a child's garment out of mother's old clothes.

Several methods have been used for renovating clothes namely; re-construction, re-modeling, re-colouring and repairing.

Some of the guidelines to be followed when renovating clothes include;

- Garments to be renovated should not be too old.
- Decide on the garment to be renovated and what it should be renovated into.
- Carryout laundry on the garment.
- Study the grain of the garment.
- Ensure that new garment is made attractive by the use of sewing accessories e.g. lace.
- The garment should be suitable for the purpose for which it is intended.

REFERENCE

Armstrong, M.Q., Kefgen, E.A (1971). Individuality in clothing selection and personal appearance. Macmillan Publishing Co. inc. New York.

UNIT 9: REPAIR AND MAINTENANCE OF HOUSEHOLD ARTICLES

INTRODUCTION

Household articles in regular use will show signs of wear and tear. They should be checked from time to time and a day set aside for mending them. The repairs of household articles such as bedsheets, curtains upholstery etc can be carried out in the following ways:

- i. Patching or darning.
- ii. Patch material can be obtained from the scrap box.
- iii. Patches in printed fabrics should be hemmed, top-stitched or loop-stitched into place; calico or household patches should be oversewn.
- iv. Thread should match the articles in colour, texture, thickness and origin. Use cotton thread for cotton and linen fabrics, silk for wool and silk, then silk and synthetic threads for synthetic fabrics.

Darning is the mending of holes in garments, bedsheets by the interweaving of threads with a needle across the hole. Darning is necessary to strengthen a weak part in a bedsheets, curtain etc or mend a tear in a wrapper which has been torn by a sharp object.

OBJECTIVES

At the end of this unit, you should be able to:

1. State what darning is used for.
2. State three types of patches.

HOW TO STUDY THIS UNIT

1. Read through this unit carefully.
2. Note how darning is being done on a torn fabric.

WORD STUDY

Darning: Filling up a torn clothing article with similar thread in colour, texture and strength to cover the tear.

Patching: sewing a piece of material of like colour, design and strength to cover a tear in an article.

ACTIVITIES

1. Define darning and patching.
2. State three types of darning.

REPAIR AND MAINTENANCE OF HOUSEHOLD ARTICLES

Darning is useful for mending hand and machine knitted material for repairing thin places and small holes. It is carried out by weaving strong thread into the material to replace or strengthen worn threads.

Guidelines for Darning

1. Threads which matches the fabric's colour, thickness and texture should be used e.g. woolen thread for woolen fabric. Some threads maybe drawn from the seam of the fabric and used for darning.
2. Long darning needle should be used to make it easier to manipulate for weaving.
3. All darns should be worked on the wrong side.
4. All straight tear or cut should be aligned with fish bone stitches.
5. The darn should cover the hole and all worn out part of the fabric.
6. Selvedge should be darned first.
7. Loops should be left at the end of each row to allow for shrinkage.
8. There should be double darning over the hole and over thin places surrounding the hole.

Type of Darning

1. Darning a hole
2. Hedge – Tear Darn
3. Machine Darning (slit or tear)

Patching

When darning cannot be carried out, the article should be patched. This is done by using a small piece of material that is inserted into any article to replace the worn out part.

Guidelines for Patching

1. The patch must be similar to the garment in colour, texture and pattern. A cutting from pockets facing or hem can be used.
2. Make patch wide to cover the holes and surroundings.
3. Cut patch to a definite shape e.g. square, round or rectangular.
4. Matching thread should be used.
5. Mitre all corners of the patch except on woolen fabrics.

Types of Patching

1. Household patch or calico patch
2. Print patch
3. Flannel or wool patch
4. Cloth patch

SUMMARY

Darning and patching are used in mending household articles that have some cuts or are torn. This process is necessary to strengthen the weak part of such articles as bedsheets and curtains and make them serve longer. The thread used in darning and patching should be similar to the threads on the damaged articles.

UNIT 10: CARE OF DIFFERENT FABRICS

INTRODUCTION

Proper care of one's fabrics and clothing will save one both time and money in the long run. There is need to take care of fabrics and clothing on a routine basis. We also need to understand care-labeling information or instruction. We should be able to choose the best method for cleaning a garment or fabric item.

OBJECTIVES

After studying this unit, you should be able to:

- i. State the treatment that could be given to white cotton and linen and lace fabrics.
- ii. Describe the activities involved in sponging and pressing.

HOW TO STUDY THIS UNIT

1. Read through this unit carefully
2. Note the different nature of fabrics and discuss how to take care of them.

WORD STUDY

Steeping: dipping in detergent with water (liquid) covering fabric for some period.

Sponging: process used in taking care of fabric such as woolen garments and other materials which are likely to shrink.

ACTIVITY

1. State the treatment that could be given to white cotton.
2. Which process does woolen fabrics go through to prevent shrinking?

CARE OF DIFFERENT FABRICS

There are two types of textile fabrics and these are naturally produced fabrics with natural source and those produced with synthetic source i.e man-made fibres or fabrics. Since the clothes are produced from different source, the care will also be carried out through different treatment.

These are:

1. Washing White Cotton and Linen

- Steep in water for some hours to loosen the dirt.
- A little synthetic detergent may be added.
- Wash in warm water and boil if very dirty.
- Rinse thoroughly, dry and iron.

2. Washing Coloured and Painted Cotton and Linen

- Do not steep in water when the colours are likely to run but wash as quickly as possible.
- Wash gently in warm water by squeezing and kneading the fabric.
- Try to avoid friction as far as possible.
- Rinse in warm water to remove soap and then rinse in water to which salt has been added.
- Dry in shade.
- Iron on the wrong side with a fairly hot iron when dry.

3. Washing Silk Materials

- Always wash silk before it becomes badly soiled.
- Steep in water for a few minutes in a lukewarm synthetic detergent solution.
- Wash very gently in lukewarm water with a synthetic detergent.
- Do not rub, wring or twist, just squeeze the water through the garment.
- Add one tablespoonful of vinegar to five litres of cold water and rinse the garment thoroughly.
- To dry, roll the garment in a towel to absorb the surplus water/moisture.
- Iron when partially dry, using a warm iron.
- Iron the wrong side and never iron over seams or double parts otherwise shiny impressions may be made.

4. Washing Woollen Materials

- Wash in warm water and synthetic detergent.
- Wash very gently by squeezing the water through the fabric.
- Do not rub, twist or wring in any way.
- Rinse in warm water as many times as is necessary to remove every trace of detergent.
- Avoid a change of temperature in the washing and rinsing water.
- Roll in a towel to remove surplus moisture.
- During drying shake the fabric from time to time to fluff out the hairy fibres. If the garment is hand knitted and stretches a lot, it should be dried flat.

- Iron on the wrong side, while slightly damp with a warm iron.
- If the fabric is very dry, a steam iron is very helpful.

5. Washing Man-Made Fabrics

- The clothes should be washed as soon as they are dirty.
- They should be wash frequently and not allowed to get very dirty before they are washed.
- Wash gently in warm water.
- Do not wring or twist but wash by squeezing and kneading.
- Rub soap or detergent solution directly onto the dirty spots.
- Rinse thoroughly to remove all traces of lather.
- Roll in a large towel to remove moisture/water.
- Dry in the shade and iron when partially dry.

Most man-made do not need ironing. Terylene should be drip dried. White nylon should be washed separately from coloured nylon because nylon picks up colour very easily.

6. Wash Lace Fabrics

- Wash according to the fibre from which it is made.
- Iron on the wrong side over a thick pad so that the pattern will be well raised on the right side.

7. Sponging and pressing

- These processes are usually applied on woolen garments or other materials which may shrink or lose their shape if washed.
- Such garments can be freshened up and smartened by sponging and pressing.
- Shake the garments in the open air.
- Brush all over, giving special attention to the inside of the pockets, pleats, etc.
- Place the garment on a shirt board and rub lightly all over on the right side with slightly damp muslin.
- Turn the wrong side and press through a damp muslin.

8. Finishing

There are several ways of finishing a garment or article after it has been washed. The garment may be beaten, mangled or pressed depending on the type of fabric at the equipment at your disposal. These carried out with the following:

- i) Beating – This is usually applied to heavily woven material.
- ii) Mangling – This is only suitable for all flat articles that have not been stretched.
E.g. towels, bed linen, etc.

- iii) Pressing – This is used for garments which are not suitable for ironing. All woolen articles and knitted garments can be finished by pressing. Where presser is not available, an iron and a damp pressing cloth can be used.

9. Ironing

The method of finishing is used on most fabrics and this can be applied on the garments with the following guides:

- Study the instruction supplied with the fabric and ascertain the amount of heat the fabric can withstand.
- Iron the garment working on the right side or wrong side according to the fabric.
- Iron all double parts on the wrong side (this does not apply to silk or acetate).
- Iron the sleeves.
- Iron the collar, working carefully to get a sheer edge i.e. place the join of the collar lining exactly along the edge,
- Iron the bodice of the frock, doing first the back then the front giving special attention to any decoration e.g. tucks, pleats. Etc.
- Finish by ironing the shirt working from the hem to the waistline along the straight grain of the fabric.
- Iron the gathers, iron well into them with the point of the iron, at the same time raising the work slightly with the free hand.
- For the pleats, first open out and iron them, then fold all pleats into place, arranging them flat on the table or ironing-board and press very heavily on them.
- For flared dresses, do not iron up and down straight the garment as this stretches it out shape and causes a very uneven hem line.
- Air the dresses after ironing.

10. Folding

Dresses are best stored on a hanger but if the space is very limited or if the owner is packing them for a journey. They may be folded as follows:

- a. Fasten buttons and place the front on the table, arrangement pleats, tucks, etc.
- b. Fold in the sides carefully arranging the colour and shoulders.
- c. Flatten the part under the arm and fold the sleeves to lie parallel (in line) with the main part.
- d. Fold into two or three across.

SUMMARY

Fabrics are taken care of according to the source of fibre. Clothes should be sorted out according to their fibres before washing. Instruction for taking care of them should be observed.

REFERENCE

Armstrong, M.Q., Kefgen, E.A (1971). Individuality in clothing selection and personal appearance. Macmillan Publishing Co. inc. New York.

MODULE 6: PRINCIPLE OF FOOD PREPARATION

UNIT 1: THE CONCEPT OF FOOD AND FOOD CLASSES

INTRODUCTION

Food aside from clothing and shelter is one of the basic necessities of life. Food is anything taken either solid or liquid that nourishes the body. It can also be defined as any substance which after consumption, digestion and absorption by the body produces energy, promotes and repair of tissues and regulates all body processes. Food is more than something that tastes good and fills the stomach, it is the body's source of nutrients. Nutrients are substances that are found in food and that the body needs in order to work properly. The study of various nutrients in relation to their effect upon the human body is called nutrition. Nutrition can therefore be considered as the science of food and its relation to health.

OBJECTIVES

At the end of this unit, you should be able to

- (1) Define Food, Nutrients and Nutrition.
- (2) State the six classes of food and their food sources.
- (3) Enumerate two (2) functions of each food class.

HOW TO STUDY THIS UNIT

- (1) Before reading through this unit you go through the word study.
- (2) As you read through, take note of unfamiliar words, check the meaning from your dictionary, any Home Economics book or the internet.
- (3) Study the unit step by step and arrange for you

NOTE: ALL ANSWERS TO ACTIVITIES AND ASSIGNMENT ARE AT THE BACK OF THIS BOOK.

WORD STUDY

Study these words before you read on

Food - anything consumed either solid or liquid that nourishes the body.

Nutrients - substances found in foods, which the body needs in order to work properly.

Nutrition - is the science of food and its relation to health.

Classes of Food - the six classes of food are proteins, carbohydrates, fats, vitamins, minerals, water.

FOOD CLASSES

The food we eat contains a number of basic substances called nutrients. The six basic types of nutrients work together as a team. They are carbohydrates, proteins, fats, minerals, vitamins and water. Each type of nutrients has a special role in keeping the body healthy.

1. CARBOHYDRATES

Carbohydrates are the body's main source of energy. The sources of carbohydrates are rice, cassava, yam, corn, sugars, breads, potatoes, cereals, peas.

FUNCTIONS

- Provides the body with energy for work and play.

2. PROTEINS

Protein as a nutrient can be classified into two groups as complete proteins and incomplete proteins. The complete proteins are foods obtained from animal sources while the incomplete proteins are plant foods.

SOURCES OF PROTEINS

The sources of proteins are foods from animal sources (meat, fish, poultry, milk and milk products, eggs) and foods from plant sources (grains, dry beans, peas, nuts, seeds and some vegetables).

FUNCTIONS

- for building and repairing body tissues
- helps regulate a number of body functions
- provide energy, when the diet taken doesn't include enough carbohydrates.

3. FATS

The two main types of fats are saturated fats and unsaturated fats. Saturated fats are solid at room temperature and are found in animal foods such as meat, poultry, fish, egg yolks, dairy products, coconut oils, palm and palm kernel oils while the unsaturated fats are usually liquid at room temperature and found mainly in vegetable oils.

FOOD SOURCES

Food sources of fats include butter, margarine, salad dressing, sour cream, meat, fish, poultry, egg yolk, whole milk, cheese, pastry and nuts.

FUNCTIONS

- Fats are the most concentrated form of food energy.
- Carry the fat-soluble vitamins (A, D, E and K) in the body.
- Provides substances required for normal growth, reproduction and healthy skin.

4. VITAMINS

The substances required by the body in very small amounts are called vitamins. Vitamins can be grouped into categories: Fat soluble vitamins, which are vitamins A, D, E and K. Water soluble vitamins which are C AND B. Complex vitamins help to regulate body processes.

SOURCES AND FUNCTIONS OF VITAMINS.

Fat-Soluble Vitamins

Vitamin	Sources	Functions
Vitamin A	<ul style="list-style-type: none">➤ Dark green, leafy vegetables, such as spinach➤ Deep yellow and orange fruits and vegetables, such as carrots, sweet	<ul style="list-style-type: none">➤ Helps keep skin and hair healthy➤ Aids night vision➤ Helps build strong bones and

	<ul style="list-style-type: none"> ➤ potatoes, and apricots ➤ Liver ➤ Milk, cheese ➤ Eggs 	teeth
Vitamin D	<ul style="list-style-type: none"> ➤ Milk with vitamin D added 	<ul style="list-style-type: none"> ➤ Helps build strong bones and teeth
Vitamin E	<ul style="list-style-type: none"> ➤ Vegetable oils, margarine ➤ Whole-grain breads and cereals ➤ Dark green, leafy vegetables ➤ Dry beans and peas ➤ Nuts and seeds ➤ Liver 	<ul style="list-style-type: none"> ➤ Helps form red blood cells, muscles, and other tissues
Vitamin K	<ul style="list-style-type: none"> ➤ Dark green, leafy vegetables ➤ Cabbage 	<ul style="list-style-type: none"> ➤ Helps blood to clot

Water-Soluble Vitamins

Vitamin	Sources	Functions
B-complex vitamins (including riboflavin, niacin, thiamine, B ₆ , and B ₁₂)	<ul style="list-style-type: none"> ➤ Whole-grain and enriched breads and cereals ➤ Dry beans and peas, peanut butter, nuts ➤ Meat, poultry, fish ➤ Eggs ➤ Milk 	<ul style="list-style-type: none"> ➤ Help body use carbohydrates, fats, and proteins ➤ Help produce energy in cells ➤ Help maintain healthy nervous system, muscles and tissues
Vitamin C	<ul style="list-style-type: none"> ➤ Citrus fruits ➤ Many other fruits and vegetables, such as strawberries, broccoli, tomatoes, potatoes 	<ul style="list-style-type: none"> ➤ Helps maintain bones, teeth, blood vessels ➤ Helps heal wounds

5. MINERALS

Minerals are substances needed by the body in large number and small amounts. They include calcium, phosphorus, Iron, Potassium, etc. Minerals make up part of the hard and soft body tissue and also assist in body functions.

SOURCES AND FUNCTIONS OF MINERALS

Some Important Minerals

Mineral	Sources	Functions
Calcium	<ul style="list-style-type: none">➤ Milk and milk products➤ Sardines, salmon (eaten with bones)➤ Dark green, leafy vegetables➤ Dry beans and peas	<ul style="list-style-type: none">➤ Help build and maintain strong bones and teeth➤ Helps heart, muscles and nerves work properly➤ Helps blood to clot
Phosphorus	<ul style="list-style-type: none">➤ Meat, poultry, fish➤ Eggs➤ Dry beans and peas, nuts➤ Milk and milk products	<ul style="list-style-type: none">➤ Helps build and maintain strong bones and teeth➤ Helps body use carbohydrates, fats, and proteins
Iron	<ul style="list-style-type: none">➤ Liver➤ Red meats➤ Egg yolks➤ Dark green, leafy vegetables➤ Dry beans and peas, nuts➤ Whole-grain and enriched breads and cereals➤ Dried fruits, such as raisins	<ul style="list-style-type: none">➤ Helps enable red blood cells to carry oxygen to all parts of the body
Potassium	<ul style="list-style-type: none">➤ Oranges and orange juice➤ Bananas➤ Dried fruits➤ Dry beans and peas, peanut butter➤ Meats	<ul style="list-style-type: none">➤ Helps heart and muscles work properly➤ Works with sodium, another mineral, to keep fluid balance in cells➤ Helps regulate blood pressure

6. WATER

Water makes up two-thirds of the body's weight. Foods with a high water content such as soups, provide some of the water needed by the body, the rest come from liquids drunk such as milk, juice and water.

FUNCTIONS

- aids in the digestion of food
- helps to carry nutrients throughout the body
- regulates body temperature
- helps remove body waste

ACTIIVITIES

Make an album showing the food sources of the various types of nutrients

QUESTIONS

- (1) Define the following terms (i) food (ii) nutrients (iii) nutrition?
- (2) State the six classes of food and four examples of their food sources?
- (3) Enumerate two (2) functions of each food class?

SUMMARY

Food is anything taken either solid or liquid that nourishes the body; it is any substance that promotes the repair of tissues and regulates all body processes.

Nutrients on the other hand are substances that are found in food, and are required by the body to function properly. Nutrition refers to the science of food and its relation to health. The six classes of food, functions and their sources include;

Proteins – body building and repair; eg meat, fish, milk and eggs.

Carbohydrates – supplies energy; eg Cassava, corn, yam, bread, potatoes and cereals.

Fats – supplies energy about 2.5 times that of carbohydrates; eg butter, margarine, palmoil.

Vitamins – enhances proper vision (VIT A), blood cloth (VIT K) vegetables, liver, fish and fruits.

Minerals – skeletal development; eg liver, fruits, milk, fish and meat.

Water – aids digestion, regulates body temperature; eg tap water, well water, bore - hole water.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 2: FUNDAMENTAL OF MEAL PLANNING

INTRODUCTION

A meal that contains more than one of the food nutrients can be referred to as a mixed diet. When a meal contains all the necessary food nutrients (proteins, carbohydrates, fats, minerals, vitamins and water) in the correct proportions for a given person, it is referred to as a balanced diet or meal. The process of designing balanced diets in the right proportion for a specific group of people is referred to as meal planning.

OBJECTIVES

At the end of this unit, you should be able to:

- (1) explain the meaning of meal planning.
- (2) state four guidelines underlying effective meal planning.
- (3) plan menus for breakfast, lunch and dinner.

HOW TO STUDY THIS UNIT

- (1) Before reading through this unit, you should go through the word study.
- (2) As you read through, take note of unfamiliar words, check the meaning from your dictionary, any Home Economics book or the internet.
- (3) Study the unit step by step as arranged for you.

NOTE: ALL ANSWERS TO ACTIVITIES AND ASSIGNMENT ARE AT THE BACK OF THIS BOOK.

WORD STUDY

Study these words before you read on

Mixed diet – A meal that contains more than one of the food nutrients.

Balanced – A meal that contains all the essential food nutrients in the right proportion

Meal planning – The process of designing balanced diets in the right proportion for a specific group of people.

GUIDELINES UNDERLYING EFFECTIVE MEAL PLANNING

When planning family meals, it is important to include foods from each of the food groups and should be prepared in such a way that it will be appealing and easy to digest. The guidelines underlying effective meal planning are:

- The meal must contain all the necessary food nutrients. Each of the five basic six groups must be represented.
- The nutritional needs of the different groups of people in the family must be provided in the plan.
- Avoid monotony by varying the foods.
- Make use of foods in season which are normally cheaper and of good quality.
- Consider the money available – the money available to a family will determine the type of foods which it can afford.
- Plan meals several days ahead of time so as to save money and time.
- Buy good quality foods that are locally available.
- Cook food by the most suitable method.
- Time your cooking so that meals can be served and eaten hot.
- Serve meals as attractively as possible – use suitable accompaniments and garnish dishes effectively.
- Traditions and customs of the people for whom the meal is meant should be considered.
- Consider personal likes and dislikes, knowledge of the food values, cooking skill of the housewife as well as cooking facilities available.

To plan menu for the family, the three main meals of the day (breakfast, lunch and supper) must be planned for snacks or refreshment can be served in between the meals when desired.

Breakfast - This is the first meal of the day, it must not be omitted. It should be light, substantial oily and heavy foods should be avoided. The meal planner should experiment with

foods that are available in a given locality and time. The following are suggested meals for breakfast.

1. Continental breakfast menu

- Fruit or fruit juice e.g. oranges and pawpaw.
- Cereal dish e.g. cornflakes, quaker oat, maize or millet porridge.
- Egg – boiled, fried, parched, scrambled or made into omelet
- Bacon fish or liver can be served in place of egg.
- Bread and butter or toast.
- Milk and chocolate drink for children, tea or coffee for adults.

2. Local breakfast menu

- Fruit or fruit juice
- (a) Yam pottage with green vegetables and fish or boiled yam with fish / vegetable sauce.
 - Milk for children tea or coffee for adults (soya bean milk can be served)

(b) Fruit or fruit juice

Akara or moimoi

Hot maize porridge enriched with soya bean milk and sugar.

(c) Fruit and fruit juice

Fried plantains and fish stew or fried eggs

Maize or millet porridge

Soya bean milk and sugar.

Lunch and supper – lunch is normally the meal eaten in the afternoon between breakfast and supper. Lunch and supper are the main meals of the suggested menus for lunch are

(1) A drinking soup (can be served as an appetizer, if desired).

Meat or fish / melon soup (or okro or ogbono soup)

Pounded yam, garri, semovita, or fufu.

(2) Pawpaw rings

Chicken stock soup

Rice and beef stew (or jollof rice)

Steamed green vegetable

Fruit salad

(3) Strained fish nsala soup.

- Bean/ yam pottage with fish

- Garnished with green vegetables
- Pineapple slices.

Supper – This is the last meal of the day. Meals for supper should be lighter than those supper should be lighter than those for lunch. Suggested menus include:-

- (1) Beef stew
 - Boiled or fried yams
 - Beverage (if desired)
 - Fresh fruit.
- (2) Fish/ vegetable stew
 - Agidi or tuwo
 - Fruit drink or fresh fruit
- (3) Meat / vegetable stew
 - Boiled rice
 - Fruit or ice cream

ACTIVITIES

Plan menus for breakfast, lunch and dinner on a poster card.

QUESTIONS

- (1) What is meal planning?
- (2) Enumerate four guidelines underlying effective meal planning?

SUMMARY

A meal is a mixed diet containing all the necessary food nutrients in their correct proportions. However meal planning refers to the process of designing balanced diets in the right proportion for a specific group of people.

Some of the guidelines underlying effective meal planning include;

- The meal must contain all the necessary food nutrients.
- Nutritional needs of the different groups in the family must be met.
- Avoid monotony by varying the food.
- Make use of foods in season.
- Consider the money available.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

UNIT 3: COOKING

INTRODUCTION

The term cooking is the application of heat on food in order to bring about physical and chemical changes in the food. People cook food for many reasons, which will be discussed below.

A number of different methods can be used for cooking food. The one chosen will depend on food to be cooked, personal experience of the cook, the equipment and time available. The basic cooking methods include (i) cooking with moist heat and (ii) cooking with dry heat. The moist heat method of cooking is the cooking of food with liquids/fats.

These methods of cooking include boiling, simmering, poaching, stewing, braising, steaming and frying.

OBJECTIVES

At the end of this unit, you should be able to:

1. Define the term cooking.
2. State four reasons for cooking food.
3. State four methods of cooking under the moist heart methods of cooking.
4. Explain the meaning of each method of cooking mentioned above.
5. Give examples of food that can be cooked with each method of cooking.

HOW TO STUDY THIS UNIT

- (1) Before reading through this unit, you should go through the word study.
- (2) As you read through, take note of unfamiliar words, check the meaning from your dictionary, any Home Economics book or the internet.
- (3) Study the unit step by step as arranged for you.

NOTE: ALL ANSWERS TO ACTIVITIES AND ASSIGNMENT ARE AT THE BACK OF THIS BOOK.

WORD STUDY

- **Boiling** – cooking food in boiling water.
- **Simmer** – to cook food in liquid at temperature just below boiling.
- **Poaching** – to cook eggs in a special pan over boiling water.
- **Stewing** – cooking meat and vegetables slowly together in liquid.
- **Braising** – involves browning food in a small amount of fat then simmering in a very little added liquid.
- **Steaming** – cooking food in steam.
- **Frying** – means cooking foods in fat.

REASONS FOR COOKING FOOD

The application of heat on food in order to bring about physical and chemical changes is known as cooking. Food is cooked for many reasons such as:

- To improve the flavor and appearance so as to make it tasty.
- Cooking makes food more digestible. It becomes tender and so easy to chew.
- It stimulates the digestive juice.
- To preserve the food.
- To provide hot food in cold weather.
- To destroy harmful bacteria.
- To give variety to the menu.

MOIST METHODS OF COOKING FOOD

The moist heat method of cooking include the following:

1. **Boiling** – boiling is the cooking of food in boiling water. Water normally boils at 100⁰C which is the highest temperature to which water can be heated in a normal cooking process. Foods such as noodles, pasters, rice, beans, corn, yam can be boiled.
2. **Simmer** – Simmering is cooking food in liquid at temperature below boiling. The difference between boiling and simmering is that the bubbles that formed during simmering rises below slowly but do not break the surface while that of boiling break.

Fewer nutrients in simmering liquid than in boiling liquid. Mixture of food can be simmered together to make a soup or stew.

3. **Poaching** – to poach means to simmer food in a small amount of liquid so the food retain its shape. To poach, bring the liquid to simmering, carefully place the food in the liquid. Cook at simmering until done. Poaching is generally used for tender foods such as eggs, fish and fruit.
4. **Stewing** – means to cover a food with water and simmer it. Large pieces are generally cut up to speed cooking. This method is other used for less tender and of meat, poultry, fish and fruit.
5. **Braising** – involves browning food in a small amount of fat, then simmering in very little added liquid. Braising is used for less tender of meat, poultry, and some whole vegetables such as carrots.
6. **Steaming** – is a method of cooking food over boiling water rather than in it. It is a method of cooking food in steam rather in water. Steaming is most commonly used for vegetables, fish, poultry, meet, and some puddings and breads.
7. **Frying** – means cooking foods in fat/oil. If the food is immersed (completely covered) in fat/oil, the method is called deep-fat frying. Chicken, sliced potatoes and some other vegetables can be deep-fat fired. Pan frying is done in skillet with a smaller amount of fat/oil. Pan frying is used for tender cuts of meat, fish, egg and some vegetables. When thinly shed vegetables are cooked in a very small amount of fat, it is called sautening. Stir frying is another variation of frying, it is cooking and stirring of small pieces of food quickly in a small amount oil until just tender. Such as vegetables, meats, poultry or fish are used.

ACTIVITIES

Cook food using boiling, steaming, poaching and frying methods of cooking. Write out the advantages and disadvantages of using each of this method.

QUESTIONS

Answer the following questions:

1. What is cooking?
2. Give four (4) reasons for cooking food.
3. Give four (4) methods of cooking under the moist heat methods of cooking.

4. Briefly explain the meaning of the methods of cooking mentioned above.
5. State examples of food that can be cooked with each method of cooking.

SUMMARY

Cooking refers to the application of heat on food resulting in physical and chemical changes in food.

Some of the reasons for cooking food includes to;

- Make food more digestible.
- Improve the flavor and appearance of food.
- Preserve food.
- Destroy harmful bacteria.

The methods of cooking include; boiling, simmering, poaching, stewing, braising, steaming and frying.

Boiling- cooking food in boiling water.

Simmer- cooking food in liquid at temperature just below boiling.

Poaching- cooking eggs in special pan over boiling water.

Braising- involves browning food in a small amount of fat, then simmer in very little liquid.

Steaming- cooking food using steam.

Frying – cooking food in oil.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 4: BASIC COOKING METHODS (DRY HEAT METHODS OF COOKING)

INTRODUCTION

A number of different methods can be used for cooking food. The one chosen will depend on food to be cooked, personal experience of the cook, the equipment and time available. The dry heat methods of cooking refer to the methods of cooking food with dry/radiant heat. They include baking, roasting and grilling.

OBJECTIVES

At the end of this unit, you should be able to:

1. Give three (3) examples of dry heat method of cooking.
2. Explain the meaning of these methods of cooking.
3. State foods suitable for cooking with dry heat.

HOW TO STUDY THIS UNIT

- (1) Before reading through this unit, you should go through the word study.
- (2) As you read through, take note of unfamiliar words, check the meaning from your dictionary, any Home Economics book or the internet.
- (3) Study the unit step by step as arranged for you.

NOTE: ALL ANSWERS TO ACTIVITIES AND ASSIGNMENT ARE AT THE BACK OF THIS BOOK.

WORD STUDY

Study these words before you read on:

Baking – cooking in an oven or oven-type appliance with dry heat.

Roasting – is a method of cooking food in (i) an open fire or over heated charcoal.

(ii) heated sand or ash

(iii) oven or enclosed space with hot fat/oil.

Grilling – is a method of cooking food by radiant heat known as grilling.

Baking – is a method of cooking food in an oven or oven-type appliance with dry heat to bake food in an oven, it is important to pre-heat the oven prior to baking. Foods commonly baked include breads pies, cakes and cookies.

Roasting – is a method of cooking food in an open fire or overheated charcoal, heated sand or ash and oven with the aid of fat or oil. The two ways of roasting foods are pot roasting and spit roasting. Pot roasting is the cooking of food in a covered pan while spit roasting is the placing of prepared foods on a rotating spit over or in front of a piece of radiant heat. Foods suitable for roasting include tender cuts of meat and poultry, fish, maize, groundnut, yam.

Grilling – Another name for grilling is broiling. Broiling is a method of cooking food directly under or over the source of heat. Broiling can be done in a range, countertop broiler or toaster oven, or an outside grill. To control how fast a food broils, the distance the food is placed from the source of heat should be adjusted. Foods that can be broiled include tender cuts of meat and poultry, fish, some vegetables and fruits.

ACTIVITIES

Cook foods using roasting, baking and grilling methods of cooking.

Write out two (2) advantages and disadvantages of using each of these methods.

QUESTIONS

1. State three (3) examples of dry heat methods of cooking?
2. Explain the meaning of these methods of cooking.
3. What are the foods suitable for cooking with these methods.

SUMMARY

Cooking methods depend on the food to be cooked, personal experience of the cook, the equipment and time available for cooking.

The dry heat method of cooking refers to cooking with dry/ radiant heat. They include baking, roasting and grilling.

Baking – cooking food in an oven or oven –type appliance with dry heat.

Roasting- cooking food in an open fire or over heated charcoal.

Foods suitable for cooking with dry heat;

Baking- cakes, cookies, pies.

Roasting – meat, fish and yam.

Grilling- meat and fish.

Reference

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 5: ADVANTAGES AND DISADVANTAGES OF MOIST HEAT METHODS OF COOKING

Introduction

Ideas about different ways to cook foods can be obtained in cook books and reapers in magazines. It is important to put into consideration the advantages and disadvantages of using any of these cooking methods before starting to cook.

Objective

At the end of this unit, you should be able to state two advantages and disadvantages of boiling, steaming, stewing and frying.

How to Study this Unit

- (1) Before reading through this unit, you should go through the word study.
- (2) As you read through, take note of unfamiliar words, check the meaning from your dictionary, any Home Economics book or the internet.
- (3) Study the unit step by step as arranged for you.

NOTE: ALL ANSWERS TO ACTIVITIES AND ASSIGNMENT ARE AT THE BACK OF THIS BOOK.

WORD STUDY

Study these words before you read on:

Advantages – are the benefits you derived from something.

Disadvantages – are the non-benefits you derived from something

Advantages and disadvantages of moist heat methods of cooking

The moist heat methods of cooking include boiling, steaming, stewing, frying, poaching and braising.

Boiling – Boiling has several advantages and disadvantages. These are

Advantages

1. Boiling is quick and easy method of cooking.
2. Boiled foods are cheap, as tough cuts of meat may be boiled.
3. It makes food soft and easy to digest, therefore it is suitable for invalids, children, convalescents and the aged.
4. Many foods can be cooked by boiling.
5. It requires little fuel and attention.

Disadvantages

1. Food nutrients like water soluble vitamins can be lost in the boiling water.
2. Food can be tasteless if not properly cooked.
3. Boiled foods are not always appetizing and tasty, always need careful garnishing.

Stewing

Advantages

1. Food nutrients are conserved.
2. Makes tough food tender and digestible.
3. Flavours of food are retained.
4. Very little fuel is required.
5. It needs very little attention.
6. It makes protein coagulation without overhardening.

Disadvantages

1. It is a long and slow method of cooking.
2. It requires more attention than boiling.
3. The long process of cooking can destroy some nutrients such as vitamin C in fruits and vegetable.

Steaming

Advantage

1. Nutrients and natural juices are retained.
2. Makes food lighter and easy to digest.
3. It is economical and labour saving method of cooking.
4. It is not common to overcook foods by the steaming method.

Disadvantages

- Take longer time to cook.
- Steamed foods lack flavor.
- Not many types of food can be cooked by steaming.

Frying

Advantages

- It is the quickest method of cooking.
- Makes food appetizing.
- Flavor of fried foods are retaining.
- Fried foods are attractive.

Disadvantages

- Requires careful and constant attention.
- It is only suitable for soft foods.
- Not suitable for children, invalids and convalescents.
- Fried foods are not easily digested.
- Not suitable for tough cuts of meat.

Activities

Write out two advantages and disadvantages of other moist heat methods of cooking (poaching, braising).

Questions

1. State two advantages and disadvantages of the following moist methods of cooking: boiling, steaming, stewing and frying.

SUMMARY

It is important to put into consideration the advantages and disadvantages of different cooking methods.

Boiling

Advantages

- It is a quick and easy method of cooking.

- Boiled foods are cheap and easy to digest.

Disadvantages

- Loss of nutrients occurs while boiling, such as water soluble vitamins.
- Boiled foods are not as tasty hence requiring garnishing.

Stewing

Advantages

- Nutrients are conserved and flavours are retained in food.
- Requires little fuel.

Disadvantages

- It is time consuming.

Steaming

Advantages

- Nutrients and natural juices are retained.
- Foods are easier to digest.

Disadvantages

- It is not applicable to many food types, mostly applicable to vegetables.
- It is time consuming.

Frying

Advantages

- It is the fastest method of cooking.
- Fried foods are attractive.

Disadvantages

- Fried foods are not easily digested.
- Frying requires careful and constant attention.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 6: THE EFFECT OF HEAT ON FOOD

Introduction

When heat is applied to food, different physical and chemical changes take place. These physical and chemical changes are referred to as the effects of heat on food.

Objective

At the end of this unit, you should be able to:

Explain the effects of heat on the following food nutrients:

- Proteins
- Carbohydrates
- Fats
- Vitamins
- Minerals

How to Study this Unit

- (1) Before reading through this unit, you should go through the word study.
- (2) As you read through, take note of unfamiliar words, check the meaning from your dictionary, any Home Economics book or the internet.
- (3) Study the unit step by step as arranged for you.

NOTE: ALL ANSWERS TO ACTIVITIES AND ASSIGNMENT ARE AT THE BACK OF THIS BOOK.

WORD STUDY

Study these words before you read on

- **Coagulate** – to cause particles in to group together, as egg white does when heated.
- **Gelatinize** – thicken of a paste to set e.g. Akamu paste to Agidi
- **Caramelizes** – to heat sugar or boil dissolved sugar until it turns dark brown.

Cooking produces different effects on food. For instance

- When protein foods, such as egg, meat, and fish are cooked, they coagulate or harden and shrink. Further working makes the meat tender and more digestible.
- Carbohydrate (i) starch – The starch grains swell, break up, become softer and more digestible. Starch paste gelatinizes and forms a thick paste which thickens further and sets on cooling as adige flour moulds when subjected to moist heat methods of cooking. The application of extreme dry heat on starch makes dextrinize.
(ii) sugar – sugar dissolves when subjected to moist heat, it then colours and upon further heating turns golden brown and finally caramelizes.
(iii) cellulose which is the framework of vegetables and fruits softens when heat is applied.
- Fats
Fats are normally solid at room temperature, fats will melt and become liquid when heated. When fat is subjected to a dry heat method of cooking, it undergoes partial decomposition and produces fatty acid substances which are irritating to the digestive organs.
- Vitamins
Fat soluble vitamins A and D, are unaffected by cooking at normal temperature, but the water soluble vitamins B and C are easily lost during cooking.
- Minerals
Minerals are not usually destroyed by the cooking process, although some of them undergo chemical changes when heated during cooking for example the cooking. Iron-rich foods usually increase ease with which the body can absorb the mineral.

Activities

- Cook the following food, and record your observation on a sheet of paper
- Egg
- Meat
- Akamu
- Sugar
- Butter

Question

Briefly explain the effects of heat on the following food nutrients:-

Protein, carbohydrates, fats, cellulose, vitamins, minerals

SUMMARY

Heat when applied to food causes physical and chemical changes, some of the effects of heat on food nutrients includes;

Proteins: coagulation, hardening and shrinkage.

Carbohydrates: It makes food more digestible.

Fats: Partial decomposition and production of fatty acids which are irritating to the digestive organs.

Vitamins: Loss of water soluble vitamins such as vitamins B and C.

Minerals: Many minerals are destroyed during cooking, except for iron, whose absorption is increased during cooking.

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

UNIT 7: CHOOSING A RECIPE

INTRODUCTION

To combine ingredients together in order to make a meal, the cook can decide to use his/her imagination to blend the ingredients until the mixture tastes just right. He/she can also look for a recipe that tells one the amounts of ingredients needed and what to do with those ingredients.

Objectives

At the end of this unit, you should be able to:

1. Define the term recipe.
2. Outline the guidelines to be followed before choosing a recipe.
3. Explain the abbreviations and equivalent in a recipe.

How to Study this Unit

- (1) Before reading through this unit, you should go through the word study.
- (2) As you read through, take note of unfamiliar words, check the meaning from your dictionary, any Home Economics book or the internet.
- (3) Study the unit step by step as arranged for you.

NOTE: ALL ANSWERS TO ACTIVITIES AND ASSIGNMENT ARE AT THE BACK OF THIS BOOK.

WORD STUDY

Study these words before you read on:-

Recipe – a set of directions used in cooking.

Abbreviations – is a shortened form of a word. Recipes often use abbreviations or symbols to save space.

Equivalents – are amounts that are equal such as twelve inches and one foot.

Choosing a recipe

A recipe is a set of directions used in cooking. Recipes list the amount of ingredients needed and explains what to do with those ingredients. Recipes can be found in cookbooks, magazines and newspaper, friend and family members often share favorite recipes with one another.

Before choosing a recipe, follow the following guidelines:

- Look over several recipes for the type of food you want to prepare compare them by asking yourself these questions:-
 - Is this recipe appealing? If you will be sharing the food with other consider their preferences and special needs as well as your own,
 - How long will the recipe take to prepare?
 - Do I understand all the step?
 - Do I have the skills needed?
 - Do I have all the necessary equipment?
 - Are the ingredients available within ones locality?

Recipes are written using customary and metric in abbreviation and equivalents from. An abbreviation is a shortened form at a word. Inorder to save space in a recipe,while equivalents are amounts that are equal. Equivalents come in handy and can be used to change a recipe. The charts below shoe some basic abbreviations and equivalents for a recipes.

Types of measurement	Customary units and abbreviations	Metric unit and abbreviation
Volume	Teaspoon (tsp.) Tablespoon (tbsp.) Fluid ounce (oz.) Cup (c.) Pint (pt.) Quart (qt.) Gallon (gal.)	Milliliter (ml.) Liter (L.)
Weight	Ounce (oz.) Pound (lb.)	Gram (g.) Kilogram (kg.)
temperature	Degrees Fahrenheit (⁰ F)	Degrees celcius (⁰ C)

Customary unit	Customary equivalent	Metric equivalent
Dash	Less than 1/8 tsp.	Less than 0.5 ml
¼ tsp.		1 ml
½ tsp.		2 or 3 ml
1 tsp.		5 ml
1tbsp.	3 tsp.	15 ml
1 fluid oz.	2 tbsp.	30 ml
¼ cup	4 tbsp.	50 ml
1/3 cup	5 tbsp/tsp.	75 ml
½ cup	8 tbsp.	125 ml
2/3 cup	10 tbsp. + 2 tsps	150 ml
¾ cup	12 + bsp	175 ml
1 cup	16 tsps.	250 ml
1 pt.	2 cups	500 ml
1 qt.	2 pt. or 4aps	1L (1000ml.)
1 gal.	4 qt.	4L
1 oz. (weight)		30g
1 lb.	16 oz (weight)	500g
2 lb.	32 oz (weight)	1kg (1000g)

Activities

Check a cookbooks magazine or newspaper and write out a reape for a favorite dish of your choice.

Questions

1. What is a recipe?
2. What are the guidelines for choosing a recipe?
3. Write out the abbreviations for these units (teaspoon, cop, gallon, liter).
4. Enumerate the equivalents for these units (lap, dash, 1 fluid oz., 1 pt.).

SUMMARY

A recipe is a set of directions used for cooking, it contains the amount of ingredients needed and what to do with those ingredients.

Some of the guidelines to be followed when using a recipe are:

- Appealing nature of the recipe.
- Length of time taken to prepare the recipe.
- Understanding of the steps involved.
- Ensure that you have the necessary skills.
- Ensure that all the necessary equipments are available.
- Availability of the ingredients within ones locality should be considered.

PROJECT

Student to produce recipe album

REFERENCE

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 8: MAKING OF FRUITS AND SOFT DRINKS

Introduction

Fruits and soft drinks are made from natural fruit juice, milky drinks and a variety of other drinks that one can use in place of water. Drinks are made from juices and commercial drinks. Juices squeezed out from fruits are bottled and pasteurized or canned. They are pleasant to drink and contain sugar and acids of the original fruits and as well as a small portion of ascorbic acid (Vitamin C).

Objectives

At the end of this unit, the learners should be able to:

- (1) Define fruits and soft drinks
- (2) Explain the sources of fruits and soft drinks
- (3) Identify fruit drinks and soft drinks
- (4) Identify the ingredients used in making them
- (5) Make fruits and soft drinks.

How to Study

- (1) Read through this unit and try to note the main ideas and unfamiliar words. Check the unfamiliar words in the dictionary.
- (2) Study this unit step by step as it has been arranged and do all the activities.
- (3) To get the best out of these study, try to obey all the instruction and rules.

Word Study

Study this words before reading through the units:

Pasteurisation – removing or getting rid of all micro – organisms in milk

through the use of very high temperature.

Soft Drinks – are drinks that are easy to drink because they are strong.

Milky Drinks – are made out of milk source.

Commercial Drinks – are drinks that are made for sales.

How to Make Drinks

Pineapple Drink

Ingredient

- Peeled pineapple
- A few cloves
- Sugar to taste
- 1 litre of water

Procedure

- (1) Wash pineapple well by scrubbing and peel.
- (2) Squeeze out water from the pineapple
- (3) Put cloves in water, bring to boil then drain out cloves
- (4) Add sugar syrup for sweetening
- (5) Chill before serving the drink

Ginger Beer

Ingredients

- 400g of ginger
- Juice of 2 limes
- 3 bottles of water
- 1g of sugar to taste
- 15g of cloves
- 1 bottle of boiling water

Procedure

- (1) Wash ginger and scrape off the skin and wash again.
- (2) Pound in a mortal until it is reduced to pulp.
- (3) Put in an enamel bowl and pour the boiling water over it.
- (4) Stir, cover and leave to infuse for 2 hours.
- (5) Strain or sieve through a fine cloth.
- (6) Add the cold water and lime juice.

- (7) Stir, covered and leave to settle for about an hour, at the end of which the starch will be settled at the bottom of the bowl and the water will be clear.
- (8) Strain very carefully so as not to disturb the dregs at the bottom of the bowl.
- (9) Add sweeten to taste if necessary.
- (10) Add cloves and bottle
- (11) Leave to chill before serving if necessary

Note: - if after the addition of cold water, the flavour is too strong, more water may be added as some people do not like it to be very hot.

Activity I

- (a) Prepare a fruit drink using a fruit in your locality.
- (b) Identify the food nutrient present in the drink.

Activity II

- (a) Identify and list five (5) soft drinks found in your locality.

SUMMARY

Fruits are used for making soft drinks and fruit juices. This is possible by simply extracting the liquid (juice such as water melon, oranges) from fruits such as water melon, oranges, lemon and pineapple. The juice can be pasteurized and stored or packaged.

Most fruits contain sugar which gives them their sweet taste. A fruit drink is made from fruit but with the addition of water and sugar to sweeten.

UNIT 9: MILK AND MILK PRODUCT

Introduction

Milk is a complete food but has no iron and vitamin C, in general, milk contains casein, albumin and globulin. Milk proteins are rich sources of all essential amino acid. Fat content about 3.5% in cow's milk to about 7.0% in buffalo's milk. Milk is used as food for feeding infants, it can be used as a dietary supplement for children and adults. It can be used in the preparation of several products, e.g. curd, cheese, ice cream and a variety of sweets.

Objectives

At the end of this unit, you should be able to;

1. Identify sources of milk.
2. Mention some uses of milk.
3. Identify the fat content in milk.

How to Study this Unit

- Before reading through this unit, you should go through the word study
- As you read through, take note of the unfamiliar words, check the meaning from your dictionary, Home Economics textbooks and internet.
- Study each unit step by step as it has been arranged for you.

Word Study

Study these words before you read on.

Milk – is a complete food in liquid form.

Milk Product – Food items produce from milk.

Notes

Milk is obtained from cow, buffalo and goat which is commonly used as food for feeding both for infant and adult. It is used in preparation of several products. Milk contains casein, albumin and globulin. Milk protein are rich sources of all essential amino acid. Fat content varies from about 3.5% in cows milk to about 7.0% in buffalo's milk. Milk from these species are poor sources of essential fatty acids. Milk contains lactose about 4.5-5%. It is also a good source of riboflavin and calcium. Milk products are curd, cheese, yoghurt, ice cream and variety of sweets.

Milk Products

1. **Yoghurt and Fermented Milk:** Different organisms are used in the process of making yoghurt and fermented milks. They are easy to prepare and highly nutritious, have enhanced keeping quality and are a little less likely than fresh milk to harbor pathogenic organisms.
2. **Cheese:** Cheese is made by letting milk clot and subsequently removing some of the water salt and flavourings may be added. Cheese making is an excellent way of using any excess milk produced during the seasons when milk yields are high.
3. **Skimmed Milk:** Skimmed milk is milk from which the fat has been removed. It is an excellent food, especially for those on predominantly carbohydrate diets and those who have extra needs for protein.

Activity

1. State where milk is obtained from.
2. List some products made from milk.

SUMMARY

Milk is essential for feeding infants and can be used as supplements for children and adult. It can be used in the preparation of many products such as cheese, yoghurt, ice cream and sweets.

UNIT 10: CHOICE AND PREPARATION OF TEA, COFFEE, COCOA

Introduction

Tea is obtained from leaves of scrub, grown in India, China, Japan Ceylon and East Africa, the leaves are crushed and then dried. They are damped and fermented in the air, then dried by machine.

Objectives

At the end of this unit, the learners should be able:

- (1) Differentiate among tea, coffee, cocoa.
- (2) Mention and explain sources of tea, coffee and cocoa.
- (3) State when tea, coffee, cocoa are taken.

How to Study this Unit

- (1) Before reading through this unit, go through the word study to get familiar with unfamiliar words
- (2) When reading through take note of the unfamiliar words, check the meaning from your dictionary.
- (3) Study the unit step by step as they were presented for learning.

Word Study

Study this words before reading through the book:

Infusion – process of soaking tea or herbs to extract the flavour.

Tannin – a bitter substance present in tea, grapes e.t.c

Caffeine – a stimulant found in tea and coffee

Stimulant – a substance that stimulates activity in the body.

Tea – is an evergreen plant, which is kept to bush size for easy plucking. A good quality leaf or bagged tea.

Procedure for Preparing

1. Pour hot water into the teapot and leave it to stand until thoroughly hot.
2. Pour off the water and put in the tea, allowing two teaspoons of each half litre of water.
3. Bring water to boil and pour immediately over the tea. If water does not reach boiling point or has gone off the boil, the tea will have a poor flavour and the leaves will probably float on the top of the water.
4. Infuse for 3 – 4 minutes
5. Keep it as warm as possible during infusion, after infusing for 3 – 4 minutes, drain out the flavour but not the tannin.
6. Pour out at once after the infusion. If left to stand, the tannin is extracted and the bitter taste is strong and the colour becomes dark.

Cocoa

Cocoa is grown chiefly in West Africa. Ghana and Nigeria produced almost 50% of the world's raw cocoa. It is also grown in West Indian, Brazil and other tropical Countries, the Cocoa beans are extracted from the pod, which is the fruit of cocoa tree.

Procedure

1. Use one teaspoons of cocoa to one cup of milk or half cup of milk and half cup of water
2. Mix the cocoa with a little of the cold liquid
3. Put the remaining liquid to boil. Immediately it boils, pour into the cocoa stirring all the time.
4. Pour back into the saucepan and bring to boil.
5. The starched is then thoroughly cooked and it thickens slightly, the texture is smoother and the flavour is improved.

Coffee

Coffee is obtained from berries of the coffee plant. The coffee must be freshly roasted and ground during production. It must be kept in an air – tight tin to preserve the flavour.

“A” Procedures

1. Heat the coffee – pot with boiling water, when thoroughly hot, pour out the water and put in the coffee
2. Two teaspoons of ground coffee to each half litre of water.

3. Bring the water to boil
4. Immediately it boils, pour it over the coffee and infuse in a warm place for 5 minutes.
5. Strain before cooking

“B”

1. Place the ground coffee in a sauce pan.
2. Cover it with the correct amount of boiling.
3. Bring to boil and remove from fire immediately
4. Stand in a warm place for 5 minutes
5. Strain into a hot coffee pot and serve immediately
6. If necessary, heat before serving.

Activity I

- (a) List three (3) countries in the world where coffee can be produced
- (b) Identify two (2) methods of processing coffee.

Activity II

- (a) Identify five (5) types of tea in the market
- (b) Describe how cocoa is prepared

SUMMARY

Tea, coffee and cocoa are beverages. They are usually brewed or made hot to produce a warm feeling. Each of them has procedures for preparation. The procedures for preparation should be strictly followed to obtain the desired product. All the three beverages should be served hot.

MODULE 7: PRINCIPLES OF HOME MANAGEMENT

UNIT 1: HOME MANAGEMENT PROCESS

INTRODUCTION

Managing family resources is to attain family desired goal. This is a series of progressive and interdependent mental activities consisting of planning, organizing, implementing and evaluating.

OBJECTIVE

At the end of this unit, you should be able to –

- a) Define home management processes
- b) Identify home management processes.

HOW TO STUDY THIS UNIT

1. Before reading through this unit, you should go through the word study.
2. As you read through, take note of the unfamiliar words, check the meaning from your dictionary, home economics text books and internet.

WORD STUDY

Study these words carefully before you read on:

- **Planning:** This flashes ones mind into activities or giving a careful consideration for different types of family activities. The planner uses her power of thinking, observation, reasoning and imagination, past experiences of the planner.

HOME MANAGEMENT PROCESSES

Home Management Process involves

- Planning to achieve goals
- Organizing for performance
- Implementing the plan
- Evaluation the results in light of the goals sought.

Planning: This is thinking through, possible ways and means of carrying out an activity or series of activities by using resources. It includes setting and clarifying goals, establishing priorities among goals, establishing standards for measuring goal attainment and determining the activities needed to reach the goals.

Organizing: This is the logical arrangement of activities within a plan. It consists of dividing responsibilities among group members and sharing and delegating authorizes, as well as timing and performing many activities at the same time. In dividing responsibilities, a manager may select one person or a small group to complete a task or activity because that person or group is best able to produce the desired result.

Implementing: Implementing is simply putting the plan into action i.e. the “doing” process of management. It is the accomplishment of goals through control of action, the evaluation of progress toward goals and adjustment of plans to meet changing resources and needs.

Implementing involves careful observations of performance to be certain that action is moving in the desired direction.

Evaluating: This is the assessment of progress in the management sub-systems and in goal attainment. Overlapping the action stage of implementing with evaluation can reduce problems and improve the implementation of a plan. Evaluating goes beyond checking, it analyzes results and judges effectiveness. It attempts to discover reasons why outcomes vary from the projected or desired goals.

ACTIVITY

- I. List the four steps involved in Home Management process.
- II. State the role of evaluation in the Home Management process.

SUMMARY

Home management process involves four inter-related steps. They are planning, organizing, implementing and evaluation. These steps must be carried out effectively to ensure satisfactory management of resources in the home.

REFERENCES

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

UNIT 2: MAKING SIMPLE HOUSE PLAN AND MATERIALS USED IN HOUSING CONSTRUCTION

INTRODUCTION

Houses are according to the culture and the weather of the people. In Nigeria, there are many kinds of house plan or house building. Some use mud bricks, cement block etc. Whatever type of house one wants to build , it all depend on the environment in which those people live, the tradition of those people should also be considered. The type or design is affected by individual taste and the desire to attain the highest level of architectural beauty of the period.

OBJECTIVE

At the end of this unit, you should be able to –

1. Identify the different types of houses seen in ones locality.
2. State the factors to consider when making the plan of a house.
3. List the types of materials used in housing construction.

HOW TO STUDY THIS UNIT

- a. Before reading through this unit, you should go through the word study.
- b. As you read through, take note of the unfamiliar words, check the meaning from your dictionary, home economics text books and internet.

WORD STUDY

Study these words carefully before you read on:

Mud, woven grass, bamboo, tree bark, burnt mud bricks, cement blocks, stone and other possible materials.

FACTORS TO CONSIDER IN HOUSE CONSTRUCTION

Making a simple house plan greatly depend on the tribe or culture in which one is.

The weather and physical conditions of the area is of importance. Based on the above reasons, certain types of house are peculiar to certain tribes. The materials used in building the house are usually those that are very easy to get in the neighbourhood, e.g. mud, woven grass, bamboo, tree bark, burnt mud bricks, cement blocks, stone, and other available materials.

In the past, caves and enclosures made from branches and leaves of trees were used as shelter to house the family e.g. in Nigeria the Fulanis who roam about to pasture their cattles and sheep.

The early man went from place to place in search of food for the family. Today, however civilization in form of technology, education and complex conditions of living have caused man to think and reorganized himself into permanent settlements. There are traditional and modern houses.

- Traditional houses are designed to accommodate parents, brothers, children and other relatives.
- Modern houses are designed according to individual taste and also they are based on the income of the individuals.

QUESTIONS

1. What should one consider when planning a simple house?
2. What are the materials used for building a modern house?

MATERIALS FOR HOUSE CONSTRUCTION

There are many materials used in housing construction these are

1. Mud – used by low income earners who are in need of shelter to house their families. Clay could also be mixed with dry grasses and leave for few days before use. Mud is then made into round or ova shape, allow it to dry before use. In some parts of Nigeria it is used for the walls, floors and roofing.
2. Cement – It is a combination of sand and stones which undergo some process. Cement s widely use nowadays, sometime it could be painted or left plain. Cement blocks are larger than mud brakes. The block before use are left to be dried by sprinkling water to make it strong, the more water the stronger and more concrete.
3. Wood – It is one of the building materials. It can be plane or polish according to taste. It could also be used for tables, tops pastry boards etc while painted woods are commonly used for shelters and cardboard.
4. Bamboo House – It is mainly constructed by using bamboo stems, trunks of palm trees. The materials used for building bamboo houses usually readily available in the areas that they are used.

ACTIVITY

Students to identify the different materials used for building in the different localities.

QUESTIONS

1. What are the common materials used in building houses?
2. Which types of materials are best used by a local Hausa man?

SUMMARY

Certain factors are considered when making the plan of a house. Such factors are tribe, culture and weather. Different materials are usually used in building a house. These materials include mud, grasses, cement blocks, bamboo and red bricks.

REFERENCES

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 3: RESOURCES (HUMAN AND NON-HUMAN)

INTRODUCTION

Resources are available assets that may be used by the home maker to achieve her goals. These resources include – money, energy, time abilities and skills of family members. Resources can be grouped into two: human and non-human.

OBJECTIVES

At the end of this unit, you should be able to –

- a) Define resources.
- b) Identify the two major types of resources.

HOW TO STUDY THIS UNIT

1. Before reading through this unit, you should go through the word study.
2. As you read through, take note of the unfamiliar words, check the meaning from your dictionary, home economics text books and internet.

WORD STUDY

Study these words carefully before you read on:

- **Resources:** Resources are available assets that may be used by the home maker to achieve family goals. Resources are grouped into two:
 1. **Human or non-material resources:** These exist within people, such as energy, time, skill, knowledge, attitude and talents.
 2. **Non-human material resources:** These exist outside people but they are acquired, manipulated and utilized by the family. Example include money, tools, goods, property and community resources (e.g. leisure centres, roads, schools, libraries, prison etc).

ACTIVITY

1. List the two major classifications of resources.
2. What are the components of human resources?

There are two major classifications of resources. These are

1. Human or non-material resources
2. Non – human or material resources

The human resources exist or are found within the individual such as energy, time, skill, knowledge, talent and traits.

The non – human resources or material resources are found outside the individual. Examples are money, tools, equipment, goods, property and facilities. These could be acquired, manipulated and utilized by the family.

An example of human resource is energy. This is the capacity for doing work and it is limited. Therefore we must learn to conserve it. To achieve this by working in logical sequence. This will help to avoid fatigue, reduce the amount of time spent on a particular activity, eliminate and depression.

SUMMARY

Resources available to the home maker are divided into two. These are human and non – human resources. Resources are used to achieve the goals of the family. The human resources are within the individual. They are skills, knowledge, time and energy possessed by the individual. The non – human resources are outside the control of the home maker. They are facilities, equipment, tools. All resources should be managed adequately because they are limited.

REFERENCES

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Chilton, G. (2001) Home Basics: The Complete Guide to Running Today's Home MO Publications Limited London.

UNIT 4: DRAINAGE, SEWAGE SYSTEMS AND EFFECTIVE WASTE DISPOSAL

INTRODUCTION

Sanitation of the home environment ensures healthy living condition. Drainage system is a means of disposing liquid wastes from the house. Liquid wastes are usually generated from sink, wash basins and bathrooms in the home. There is need for proper removal of such waste liquids to avoid some sicknesses and diseases.

OBJECTIVE

At the end of this unit, you should be able to –

1. Identify three (3) sources of household liquid waste.
2. Discuss the three (3) drainage systems.

HOW TO STUDY THIS UNIT

1. Read the word study carefully.
2. Note the unfamiliar word(s).

WORD STUDY

Drainage: This is a type system of removing and disposing liquid wastes such as dirty water from bathroom, toilet, kitchen and sometimes rain water collected by gutters.

TYPES OF DRAINAGE SYSTEMS

1. Free drainage system

This is when water is poured on the ground outside the house. In this case the ground will either absorb the water or it will flow away. This system is common in rural areas and places without planned drainage system.

Disadvantages

- It dampens the surrounding, it creates swampy and slippery and unhygienic spot.
- It makes the environment to produce foul order and provide a breeding place by mosquitoes and flies which transmit or carry diseases.
- It can cause erosion.

Advantages

- It is easy to operate

- It is not expensive

Care

- Sweep the area daily
- Pour sand over the spot when damp, slippery or swampy.
- Disinfect the area at least once a week.

2. OPEN DRAINAGE SYSTEM

In this system, special channels are provided for waste water to flow away. These channels are called gutters,

- Gutters could be open or covered with concrete slabs.
- Open gutters could be found around building and along sides of streets. They may be shallow or deep.

Advantages

- They can be easily be cleaned.
- They provide channel for water to flow.
- Covered gutters are not exposed, making it to like neat.
- Rubbish cannot easily be dumped into covered gutter.

Disadvantages

- It can be a dumping ground when not covered.
- It can breed mosquitoes.
- It can be a source of unpleasant smell when neglected.
- Covered gutter are not easy to clean.

3. Concealed drainage system

This is common in urban areas. All water ways are made with concrete. Special drainage pipes are used to carry (convey) waste liquid to soak-away.

Advantages

- It is neat, and provides a good sanitary environment.
- It does not permit the breeding of mosquitoes.
- It prevents dampness of the environment.
- It does not allow swamps to develop.

There are three sources of house drainage. These are:

- a) Toilet

- b) Bathroom
- c) Kitchen

Sewage systems

The sewage is collection of waste liquids from houses, industries, rainfall and street drainage which flow through pipes called sewers. Sewage liquid may contain some detergent chemicals, human waste and soil. The sewage should be treated so as to render the impurities harmless and free from disease causing germs.

Examples of sewage systems are

1. Sewage pipe: Have the sewage flow through drain pipes into a soak away.
2. Septic tanks: a concealed type of drainage constructed outside the house. Usually made from cement blocks, concrete or stone and drains into compartments covered with and concrete slabs which are removable.

Waste disposal

Household refuse on waste can be constitute danger to health if they are not properly disposed.

Methods of Refuse Disposal

1. Burying: Old tins, broken plates, cups and bottles can be buried.
2. Burning: Rubbish heaps of dry leaves, papers, cartons and rags should be burnt.

ACTIVITY

1. State the three sources of drainage.
2. Identify the three (3) types of drainage systems.

SUMMARY

Effective drainage of waste liquids generated from a home is important to promote from a home and prevent unhealthy environment. Household waste liquids are obtained from liquid wastes being thrown on the bear ground, bathrooms without drainage system and kitchens. Different methods of drainage and waste disposal systems were discussed in this unit.

REFERENCES

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Chilton, G. (2001) Home Basics: The Complete Guide to Running Today's Home MO Publications Limited London.

UNIT 5: HOUSE HOLD CHEMICALS AND THEIR USES

Introduction

Household chemicals include substance used as household cleaning agents which are materials available for cleaning different surfaces and dirt in the home. Although, some are harmful to some surfaces but good for others.

Objectives

At the end of this unit, the learner should be able to:

- (1) Identify five household chemicals
- (2) List the use of five household chemicals

HOW TO STUDY THIS UNIT

1. Before reading through this unit you should go through the words
2. As you read through, take note of the unfamiliar words, look up the meaning from your dictionary and Home Economics books or on the internet.
3. Study this unit step by step as arranged for you.

WORD STUDY

1. **Solvent:** - used to remove dirt or soil
2. **Detergent:** - used to wash grease stain or dirt
3. **Abrasive:** - used to rub off or wear away dirt
4. **Alkaline:** - used to reduce the amount of rubbing needed for cleaning greasy dirt
5. **Bleaches:** - used as disinfectant and to remove stains and whiten fabrics.

Activity I

- (1) List five (5) household cleaning agents.

TYPES OF HOUSEHOLD CLEANING AGENTS

Cleaning agents include solvents, detergent, abrasive, alkalis, acids, bleaches, polishes and waxes.

1. Solvents: This act to remove dirt or soil turning the dirt to liquid and suspending it. Some solvents are flammable i.e. can burn or cause fire. Some cannot burn or cause fire. Examples are water, crease solvent e.g. petrol, paraffin, methylated spirit.
2. Soap: This emulsify or dissolved grease on oil so that it can be washed away.
3. Abrasives: It cleanses by rubbing off or friction: Examples are steel wool, copper, metal sponges, sand paper.
4. Alkalis: This combines easily with greasy dirt, therefore it reduces the amount of rubbing needed for cleaning. Examples are Borax, Ammonia, washing soda and caustic soda.
5. Acids: Some acids are used as cleaning agents. Some acids remove dirt in tarnish from copper, rust from white fabrics. Examples of acids are vinegar, lemon or lime juice.
6. Bleaches: The bleaches used at home are in chlorine and sodium parborate groups. They can be used in making white clothes more white, make sinks whiter and disinfect sinks.
7. Waxes: These are used to protect surfaces and improve their appearance.

SUMMARY

Household cleaning agents are chemicals used to dissolve dirt and soils on household articles. Some of these chemicals can be dissolved in water and some in grease solvents. Some solvents are flammable e.g. petrol therefore care must be taken in using them. Some seven household in using them. Some seven household cleaning agents have been discussed in this unit.

REFERENCES

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

UNIT 6: HOME PREPARATION OF ABRASIVES

Introduction

Abrasives cleaners act by rubbing off or wearing away or abrading dirt or soil by friction. Abrasive cleaners vary in degree or coarseness from very fine to very coarse. Abrasives include steel, wool, copper and other metal sponges sandpaper and glass paper.

Objectives

At the end of this unit, you should be able to:

- Produce some home abrasives
- Explain how to use any of them

How to study this Unit

1. Before reading through this unit, you should go through the words.
2. As you read through, take note of the unfamiliar words, look up the meaning from your dictionary and Home Economic Books or on the internet.
3. Study this unit step by step as arranged for you.

Word Study

Study these words carefully before you read on.

Abrasives:

Abrasives are cleaners that can be used on articles by rubbing off the dirt. Abrasives include steel, wool, copper and other metal sponges, sandpaper and glass paper.

Scouring powder may contain a variety of abrasives differing in the hardness and size of particles. Soap, alkali and a bleach may be added to the abrasives in the scouring powder to aid their cleaning powder.

Home Made Abrasive

1. Fine sand: This can be used as abrasive for cleaning pots, stained and cement floor. It should not be used on smooth surfaces such as aluminium and polished or painted wood.
2. Ground China: This is made from broken china pieces finely ground and used as scouring powder for cleaning pots and other aluminium surfaces.

3. Egg-shell Powder: Empty egg shells can be roasted, ground into powder and used as scouring agent for sinks, bath-tubs, aluminium. When detergent is added, it improves its cleansing powder.
4. Ground charcoal: Charcoal can be ground into a fine powder and used for cleaning smooth metal surfaces.
5. Home-made Vim: This is made by putting together eggshell, detergent and broken China ware. These materials are ground into fine powder which is mixed with some ash and detergent powder.

Activity

Student should use any abrasives to clean a household article.

Question

1. Mention two abrasives for cleaning any household article

SUMMARY

Abrasives for cleaning household articles can easily produce at home. The materials are readily available and the abrasive are very efficient. The materials around homes that can be used in making abrasives include eggshells, charcoal, broken China pieces and fine sand. Every home maker should be able to produce a form of abrasive.

REFERENCES

Anyakoha, E; Eluwa, E. (1999). Home Management for Schools and Colleges. Africana – Feb Publishers Ltd.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 7: CONTROL AND ERADICATION OF HOUSEHOLD PESTS

Introduction

Household pests are those insects that destroy items in the house. Household pests include insects and rodent. They grow in dirty surrounding and carry diseases which is dangerous to health. Therefore, it is important to control pests.

Objectives

At the end of this unit, you should be able to:

1. Mention the various types of household pests you know.
2. Explain how to eradicate them

How to Study this Unit

1. Before reading through this unit, you should go through the words.
2. As you read through, take note of the unfamiliar words, look up the meaning from your dictionary and Home Economics Books or on the internet.
3. Study this unit step by step as arranged for you.

Word Study

Study these words carefully before you read on.

Household Pests

Cockroaches	Bedbugs	Termites
Weevils	Rats and Mice	White Ants
House Flies	Ants	Moths
Woodworm	Mosquitoes	

Household pests are very dangerous to the human health. They are dirt creatures and if settled on food are quite likely to have just been running about in all kinds of filth. Some can spread many diseases, including typhoid fever and dysentery. If chance is given to these pests, they will spread rubbish heaps, dustbins and dirty toilets.

TYPES OF HOUSEHOLD PESTS

There are different types of household pests. They include: Houseflies, Cockroaches, Weevils, Bedbugs, Ants, Termite or White ants, Mosquitoes, Rats and Mice, Moth, Woodworm.

1. Houseflies – This is the most common household pest and the most dangerous to health.

Flies feed on rotten food items and contaminate food.

Control: - empty dust bins regularly

- Burn or bury rubbish heaps
- Cover foods on the table and in the kitchen
- Protect doors and windows with wire netting.

2. Cockroaches – They are mostly found in kitchens, food stores and soak aways.

Control: - maintain extreme hygiene conditions in the home especially in the kitchen.

- Close up all cracks and crevices.

General Control of Household Pests

In order to stop infestation of pests the following guidelines should be followed:

1. Good hygiene is very important
2. Holes, cracks should be covered properly
3. Foods should be properly covered and stored
4. House should be properly ventilated
5. Spray the house with insecticides
6. Proper disposed of household refuse
7. Put suitable wire – netting on doors and windows
8. Keep all bedding clean and occasionally air them
9. Do not use other people clothing
10. Use insecticide and other pests control always.

Activity

List all the household pests

Questions

- What are household pests?
- List five (5) household pests.

SUMMARY

Some insects and rodents are found in some houses and homes. They can be irritable and some do cause diseases and sicknesses. Some these are mosquitoes, cockroaches, ants, weevils and rats. They are found in kitchen cupboards, crack and cervices in some kitchens. Efforts should be made to control and eradicate them in homes.

REFERENCES

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Chilton, G. (2001) Home Basics: The Complete Guide to Running Today's Home MO Publications Limited London.

UNIT 8: CARE OF THE FAMILY HOUSE

Introduction:

A clean house is inviting. It is safe and comfortable to live in. In order to keep a house clean, the different rooms in the house must be properly cared for. Every item in the house require various materials and methods of cleaning or caring for it. Each room in the house has its purpose, so it has to be furnished and decorated to suit that purpose.

Objective

At the end of this unit, you should be able to:

1. List all the different rooms in the house
2. Explain how to clean each room.

How to Study this Unit

1. Before reading through this unit, you should go through the words.
2. As you read through, take note of unfamiliar words, look up the meaning from your dictionary and Home Economics books or on the internet.
3. Study this unit step by step as arranged for you.

Word Study

Study these words carefully before you read on.

Living Room – for relaxing

Kitchen – where we prepare and cook our meals

Bedrooms – where we sleep

Dining Rooms – where we eat.

Whether you make your home in one room, two rooms, a palace or ten – roomed house, you need to clean or keep it clean. Every room needs some kind of cleaning every day and more extensive cleaning every week. This however will not be enough and from time to time, special cleaning will have to be done, in which everything is cleaned out very thoroughly.

The Sitting Room:

1. Take cushions and mats out and shake.
2. Dust ceiling and walls
3. Sweep floor and brush carpet
4. Dust furniture
5. Clean windows and mirrors
6. Mop floor or wash if need be.

The Dining room:

Clean in the same way as the sitting room, giving special attention to the cleanliness in the dining table, the table cloth, the floor round the table and any other place where food may be spilled.

The Bedroom:

1. Open all windows
2. Strip the bed clothes off the bed
3. Clean out room in the same way as sitting room
4. Cover the upholstered mattress with a cotton cloth or under blanket
5. Put on the pillow in its case and coverall with a bedspread.
6. Mop the floor of the bedroom.

The Toilet:

Good toilets are essential to healthy living. It is essential that people should use them and not foul the ground.

1. Flush after use
2. Windows to open at all times
3. Sweep and mop

The Bathroom

1. Open all windows for ventilation
2. Sweep the floor and mop
3. Clean hand basins and wipe over the tap. Wash with soap and clean water.

The Kitchen

1. Clean like any other room paying attention to any place likely to come in contact with food.
2. Clean the kitchen table and surfaces
3. Wipe plain wood and tables over with a clean damp cloth.
4. Sweep and scrub the floor.

Activity

Practice how to clean the kitchen and the living room.

Questions

1. How types of rooms can be seen in a house?
2. How can you care for the kitchen?

SUMMARY

The family house should be taken care off so that it can continue to provide comfort for the members. Every part of the house such as the sitting room, dining room, the bedroom, toilet, bathroom and the kitchen should be given adequate care and organization and arrangement and cleaning regularly. The care of each part of the house can be daily, weekly or monthly.

REFERENCES

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

UNIT 9: FACTORS AFFECTING THE CHOICE OF HOUSING DESIGN

INTRODUCTION

In choosing the design of a house there are many factors that can affect the design of a house of an individual. This influences the family as the type of house to build, rent or buy. Some of these factors are – economic status, site, family size, design of the house, culture, social factor etc.

OBJECTIVE

At the end of this unit, you should be able to –

1. Explain some of the factors that affect the choice of housing design.

HOW TO STUDY THIS UNIT

1. Before reading through this unit, you should go through the word study.
2. As you read through, take note of the unfamiliar words, check the meaning from your dictionary, home economics text books and internet.

WORD STUDY

Study these words carefully before you read on:

- Economic status, ventilation, social factors, culture, family size, location, design of the house, materials used in housing construction

FACTORS THAT AFFECT CHOICE OF HOUSING DESIGN

Some of the factors that affect the choice of house design are many but we will talk on a few.

1. Economic Status – This is often determined by the sources of income of the family.
2. Location of the House – The house should be located in an area that is easily accessible to the family members, place of work, children school, shopping centres, medical services should be considered. Others are – water, good roads, electricity, recreational facilities.
3. Family size – The number of wives, children, relation and others living together will determine the choice of a house.
4. Religion and culture: Traditional and cultural backgrounds are important factors to be considered.

5. Social factor e.g. weather is an important factor that individuals consider when choosing a house. Social activities of an individual is an important social factor. Some persons may like big houses while other may not.
6. Ventilation and lighting: There should be free flow of air into and out of a house in manner that allows clean and refreshing air for all the family members.
7. Design of the house – It can be described as the plan or layout of a house.

POINTS TO CONSIDER IN DESIGNING A HOUSE

The design of the house should meet the need of the family. Consideration should be given to the comfort, convenience and safety of the members.

1. A suitable site must be chosen. This include avoidance of overcrowded area. It should have a good drainage system and availability of electricity in the site.
2. The number and sizes of rooms should be adequate for the size of the family.
3. There should be provision of adequate lighting and ventilation in the design of the house.
4. Construction materials for walls, roof, ceiling, flooring and finishing should be suitable for the environment.
5. There should be durable and suitable fixtures such as sinks, bath-tub and toilet set.

ACTIVITY

Students should go round the locality to see the different types of houses and some factors affecting them.

QUESTIONS

- In buildings, renting or buying a house what are the factors to be considered?
- How does the size of the family affects the choice of building, renting or buy a house?

SUMMARY

Choice of housing design is the responsibility of every family member who are adults. This is because the choice affects every member of the family. Crude lines for choosing a housing design and the points to consider have been discussed in this unit. It is important that one be familiar with different types of housing designs available and choice be guided by the factors discussed in this unit.

REFERENCES

Anyakoha, E.; Eluwa, M. (1999) Home Management for Schools and College. Africana Publishers Limited Onitsha, Nigeria.

Chilton, G. (2001) Home Basics: The Complete Guide to Running Today's Home MO Publications Limited London.

UNIT 10: MEANING AND PRINCIPLES OF HOUSING DESIGN

INTRODUCTION

Housing design is an art of constructing rooms and other indoor areas of a house so that they can be attractive, comfortable and useful. Some of the principles behind housing design include use of colours and textures (painting, curtains, carpets and rugs).

OBJECTIVES

At the end of this unit, you should be able to –

1. Explain the principles that is involved in housing design.
2. Identify the colours to be used for interior decoration.

HOW TO STUDY THIS UNIT

1. Before reading through this unit, you should go through the word study.
2. As you read through, take note of the unfamiliar words, check the meaning from your dictionary, home economics text books and internet.

WORD STUDY

Study these words carefully before you read on:

Colour – is an important element of decoration.

Indoor areas – all the areas in each apartment.

PRINCIPLES OF HOUSING DESIGN

The concept of housing design is the manner in which living areas are constructed, arranged, decorated and kept liveable. Some of the principles in housing design include colours and use of textures.

1. Colour – The use of colour is an important element of decoration and design both within and outside the house. It also depends on the personal taste that is, whether the individual likes dark or bright colours. Each element is colour, texture, style, form and pattern etc can be used in various ways to produce a wide variety of effects. The way an individual chooses to use each element depend on –
 - a. The interior purpose.
 - b. The mood to be created.
 - c. The interior architecture or design.

- e. How all the elements are combined with one another.
- f. The individual taste.

The design of a house can be described as the plan or layout of a house. Housing design can be simple plain or complex. The kitchen can be detached or separated from the main house which makes kitchen activities difficult. New technology and advance in science has made provision for effective kitchen design by architects and engineers. There is provision of comfort for inhabitants or those who live in modern houses. Important parts of such designs are toilets, bathrooms, kitchen, sitting rooms and bedrooms, during area, study and play room for children.

The grounds around the house should be well planned to make provision for car(s) to drive in with ease. There should be a place(s) to plant hedges, flowers and vegetable garden. The shape of the house should be determined by individual tastes. Some designs can be rectangular, doom-shaped or boat-shaped. The back and front doors should be easily accessible from the backyard and the front of the house. There should be adequate provision of doors to make room easy access to other rooms with the house.

ACTIVITY

- Draw a colour wheel.

QUESTIONS

- Define housing design

SUMMARY

Before the construction of any house, there must be a decision on the type of the design one desired. The choice of a design are guided by many factors. These factors have been discussed in this unit. They include considering the simplicity or complexity of the design, taste of family member, purpose of the interior, the architectural effects and combination of the elements. Choice of design provide a guide for the builder.

REFERENCES

Chilton, G. (2001) Home Basics: The Complete Guide to Running Today's Home MO Publications Limited London.

Okeke, S.U.N. (2009) Home Economics for Schools and Colleges. Africana, First Publishers Plc. Onitsha, Nigeria.

MODULE 8: CHILD DEVELOPMENT AND CARE

UNIT 1: THEORIES OF CHILD DEVELOPMENT

Introduction

Child development is a process of change in behaviour, growth and the general outlook of the child while a theory is an organized set of suggestions about facts or events that is developed through study and observation. Good theory contains carefully defined terms that are tested in controlled studies.

Objectives

At the end of this unit, you should be able to:

1. Define the concepts child development and theory.
2. Enumerate five (5) theories of child development.

How to Study this Unit

1. Before reading through this unit, go through ward study.
2. Take note of unfamiliar words, look up in your dictionary, home economics book and internet for the meanings.
3. Study the unit step by step as it has been arranged for you.

Word Study

Study these words before you read on:

Theory – An organized set of suggestions about facts or events that is develop through study and observations.

Child development – A process of change in behaviour, growth and the general outlook of the child.

Theories of Child Development

Over the centuries, many researchers have focused on children's growth and development. They have organized, stated, tested and published theories to help explain children's growth and development. These theories include:

1. To change a behaviour parents must reward or punish an existing behaviour.
2. All young children have the ability and desire to learn words.
3. Development stages occur in a set order.
4. Children imitate the models around them.
5. Moral reasoning like thoughts occurs in stages among children.
6. Parents, teachers and siblings aid a child's learning through use of language.
7. Children acquire lasting personality characteristics at each stage.
8. The pleasure and pains that infants associates with the sensory experiences of feeding and toilet training influence the development of their personality.

Activities

Write five (5) child development theories that you know.

Questions

1. Define the following:
 - a. Child development
 - b. Theory.
2. Write five (5) theories of child development.

SUMMARY

Child development is a process of change in behavior, growth and the general outlook of the child whereas, theory of child development is an organized set of suggestions about facts or events that is developed through study and observation.

Theories of child development includes:

- To change behavioural patterns, parents most reward or punish an existing behavior.
- All young children have the ability and desire to learn words.
- Development stages occur in a set order.
- Children imitate the models around them.
- Moral reasoning life thoughts occur in stages among children.

REFERENCE

Essa, E.L. (1999) Introduction to Early Childhood Education. Delmar Publishers ITP, New York.

UNIT 2: STAGES OF CHILD DEVELOPMENT

Introduction

Infants experience many stages of growth and development. Development refers to an increasing skill in physical, emotional, social or cognitive abilities. The various states of development are physical, emotional, social and cognitive development.

Objectives

At the end of this unit, you should be able to:

1. Define the term development
2. List the four (4) stages of development
3. Briefly explain the four (4) stages of development

How to Study this Unit

1. Before reading through this unit, go through ward study.
2. Take note of unfamiliar words, look up in your dictionary, home economics book and internet for the meanings.
3. Study the unit step by step as it has been arranged for you.

Word Study

Study these words before you read on:

Development – An increasing skill in physical, emotional, social or cognitive abilities.

Stage of Development – The stages of development are physical development, emotional development, cognitive development and social development.

Physical Development

Physical development refers to a child's increasing ability to control and coordinate body movement. Physical development involves much more than just growth in height and weight. Each child grows and develops at an individual rate. The chart below shows what a child might do at various times during the first year.

During the First Year	What the Child Might Do
At 3 months	<ul style="list-style-type: none"> - Can hold chest and head up for ten seconds when lying on stomach. - Cries less than a newborn. - Stares at people's faces and begin to recognize family members. - Coos and gargles - Smiles.
At six months	<ul style="list-style-type: none"> - Can sit with support and perhaps sit alone for short periods. - Can roll over from front to back and from back to front. - Explores objects by putting them in the mouth. - Can reach for objects with accuracy. - Laughs out loud, bobbles, calls for help and scream when annoyed.
At nine months	<ul style="list-style-type: none"> - Can sit unassisted - Can crawl - Can use fingers to point, poke and grasp small objects. - Eats finger foods. - Knows own name and response to simple commands.
At twelve months	<ul style="list-style-type: none"> - Fears strange people and places. - Stands and perhaps walk without help - Drops and throws toys - Expresses affection - Says 'mama', 'baba' and 'bye bye'

Emotional Development

Emotional development refers to a child's growth ability to express feelings. Among these feelings are love, trust, frustration, anger and fear. Every child is born with the

capacity to express emotions. During the first year, babies develop more complex emotions from maturity and learning.

Social Development

Social development refers to a child's growing ability to relate to other people. Children quickly start learning how to get along with others, how to behave as others expect them to, and how to communicate. Social development is closely related to emotional development.

Cognitive Development

Sometimes called mental or intellectual development, cognitive development refers to a child's growth ability to perceive, remember, think, reason and solve problems. through cognitive development a child comes to know about the world. Cognitive development takes place gradually as the brain develops.

Activities

1. Write physical development of children age 1 – 6.
2. With the aid of diagrams, write out the physical development of a child during the first year.

Questions

1. What is development?
2. State the four (4) stages of development.
3. Briefly explain the four (4) stages of development.

SUMMARY

Stages of child development

Development refers to an increasing skill in physical, emotional, social or cognitive abilities.

The various states of development includes:

- a. Physical – child’s increasing ability to control and coordinate body movement.
- b. Emotional – child’s ability to express feelings.
- c. Social – child’s ability to relate with others.
- d. Cognitive development – mental and intellectual development; ability to perceive, remember, think, reason and solve problems.

REFERENCE

Essa, E.L. (1999) Introduction to Early Childhood Education. Delmar Publishers ITP, New York.

Sciarra, D.J.; Dorsey, G. (1998) Developing and Administering a Child Care Centre (Fourth Edition). Delmar Publishers New York.

UNIT 3: FACTORS THAT INFLUENCE CHILD DEVELOPMENT

Introduction

Child development as an increasing skill in physical, emotional, social or cognitive abilities of a child is greatly influenced by certain factors. These factors are heredity and the environment in which the child is growing. It is a fact that nothing can be done to change a child's heredity, a fair amount can be done to influence the environment where the child grows.

Objectives

At the end of this unit, you should be able to:

1. State and explain the two (2) factors influencing child development.
2. Enumerate three (3) environmental factors that are mostly important to the development of children.

How to Study this Unit

1. Before reading through this unit, go through ward study.
2. Take note of unfamiliar words, look up in your dictionary, home economics book and internet for the meanings.
3. Study the unit step by step as it has been arranged for you.

Word Study

Study these words before you read on:

Heredity – Means a combination of the physical, mental and emotion characteristics which a child obtains from his parents right from conception.

Environment – this is a mental world where people live.

Factors Influencing child Development

The two factors influencing child development are heredity and environment.

Heredity

Heredity is simply defined as a combination of the physical, mental and emotional characteristics when a child obtains from his parents right from conception. This is why every child resembles his parents due to the inheritance of certain characteristics from them. Heredity is determined by simple chemical substances called genes.

Environment

Environment is the neutral world where people live. This include all the conditions, circumstances and influences surround and affecting the development of a child. For example, if a child has genes which suggest that he will be tall, he will not reach his full stature unless he is provided with those things that gives him the opportunity to grow and enable him to develop the inherited characteristics to the fullest. The environmental factors that contribute in no small measure to the development of children are:

- a. **Nutrition** – Good nutrition influences the growth and development of the child. The importance of good nutrition during infancy cannot be overemphasized, because a child will not growth well unless he is well fed.
- b. **Hygiene** – this deals with personal cleanliness of the body and surroundings where children live. Good hygiene is very important to the optimum development of children. Parents should therefore protect their children from diseases.
- c. **Parental Love** – Every child needs to feel loved and wanted. This enables him to trust and feel wanted. A mother’s love is important in the emotional development of a child.

Activities

1. Draw and label diagrams of food that can enhance good nutrition in children.
2. Write four ways of maintaining good hygiene in children.

Questions

1. State and explain the two (2) factors influencing development in children.
2. List three (3) environmental factors that are mostly important to the development of children.

SUMMARY

There are two factors influencing development namely:

- Heredity
- Environment in which the child is growing.

Heredity refers to a combination of the physical, mental and emotional characteristics which a child obtains from his parents right from conception.

Environment: is a neutral world where people live, it includes all the conditions and circumstances influencing the child's development. Some of the environmental factors influencing the child development includes;

1. Nutrition – Good nutrition influences the growth and development of the child.
2. Hygiene – refers to the personal cleanliness of the body and surroundings where the child lives.
3. Parental love – Every child needs to feel loved and wanted, this enables him to trust and feel wanted.

REFERENCE

Sciarra, D.J.; Dorsey, G. (1998) *Developing and Administering a Child Care Centre* (Fourth Edition). Delmar Publishers New York.

Hildebran, V. (1997) *Parenting, Reward and Responsibilities* Glencoe McGraw Hill New York.

UNIT 4: TOYS AND PLAY MATERIALS IN CHILD DEVELOPMENT

Introduction

Toys and play materials are those materials that the child interact with when playing. Toy's are important part of a child's play while a baby is very young because he gets enough stimulation and activity from being fed, changed and bathed. It is played for him to be held, talked to and rocked. When he gets older he enjoys playing with toys and play materials.

Objectives

At the end of this unit, you should be able to:

1. Explain what toys and play materials are.
2. State four (4) importance of toys and play materials.
3. Enumerate four (4) guidelines when choosing toys and play materials.

How to Study this Unit

1. Before reading through this unit, go through ward study.
2. Take note of unfamiliar words, look up in your dictionary, home economics book and internet for the meanings.
3. Study the unit step by step as it has been arranged for you.

Word Study

Study these words before you read on:

Toys and Play Materials – Materials that the child interact with when playing.

Importance of Toys and play materials to child development

Toys and play materials are of importance in child development. The importance of toys and play materials are:

- Enable the child to get rid of fears and frustration and develop emotionally.
- They enable the child to express himself in different ways.
- They help children to exercise their muscles and this is important for good health.

- They stimulate the child's memory and give him opportunities to reason.
- Through play and the use of toys as well as play materials, he could develop mental alertness.
- Serve as tools for learning.

Guidelines when Choosing Toys and Play Materials

For toys and play materials to be able to serve the purpose for which they are meant, a lot of considerations should be put in place when choosing them. The following should serve as guidelines when choosing toys and play materials.

1. Toys and play materials should be durable and strong.
2. They should be suitable for the use of the child.
3. They should be safe to use.
4. Toys and play materials should have no sharp corners that might cut someone.
5. They should be usable in different ways and different places.
6. They should be large enough to prevent them being swallowed by the child.
7. They should be reasonably priced. The cost of a toy / play materials as well as its educational and enjoyment value should be considered.

Activities

1. Write five (5) toys and play materials suitable for infants.
2. Write five (5) toys and play materials suitable for toddlers.

Questions

1. What are toys and play materials?
2. Give four (4) importance of toys and play materials.
3. State four guidelines to be followed when choosing toys and play materials.

SUMMARY

Toys and play materials are those materials that the child interacts with when playing especially at a very tender age.

Importance of toys

- It enables the child to get rid of fears and frustration and develop emotionally.
- Enables the child to express himself in different ways.
- Serves as tools for learning.
- It stimulates the child's memory and gives him opportunities to reason.

Guidelines for choosing toys

- Toys and play materials should be durable and strong.
- They should be safe to use.
- Avoid toys that have sharp edges.
- Toys should be large enough to prevent them from being swallowed by the child.

REFERENCE

Hildebran, V. (1997) Parenting, Reward and Responsibilities Glencoe McGraw Hill New York.

UNIT 5: TYPES OF TOYS AND PLAY MATERIALS

Introduction

Toys and play materials in child development are numerous and varied. The various types should therefore be provided to suit various purposes in the child development and should also make children to develop well.

Objectives

At the end of this unit, you should be able to:

1. List five (5) toys and play materials suitable for practicing large motor skills.
2. Enumerate five (5) toys and play materials for practicing small motor skills.

How to Study this Unit

1. Before reading through this unit, go through ward study.
2. Take note of unfamiliar words, look up in your dictionary, home economics book and internet for the meanings.
3. Study the unit step by step as it has been arranged for you.

Word Study

Study these words before you read on:

Large Motor Skills – Skills that involve the control and use of large muscles, especially those in the arms and legs. These skills include walking, climbing throwing and catching.

Small Motor Skills – Skills that involve the control and use of small muscles.

Toys and play materials for practicing motor skills

Toy and play materials can be used by children for practicing motor skills i.e. large motor skills and small motor skills. The large motor skills are skills that involve the control and

use of large muscles. These skills are walking, climbing, throwing and catching while small motor skills are skills that involve the control and use of small muscles.

Toys and play materials for practicing large motor skills include kiddie cars, wagons, pull toys, balls, climbing gym, tricycles, skater, bicycles. The toys and play materials for practicing small motor skills are blocks, puzzles, nesting cans or cubes, stacking rings, large crayons, chalk, paint brushes, dolls, erector sets, lacing kits, cars.

Activities

Make two (2) toys from items around the home that will help children with small motor skills.

Questions

1. Give five (5) examples of toys and play materials suitable for practicing large motor skills.
2. List five (5) examples of toys and play materials for practicing small motor skills.

SUMMARY

Toys and play materials suitable for practicing large motor skills includes;

- Walkers
- Kiddie cars
- Balls
- Tricycles
- Skater

Toys and play materials suitable for practicing small motor skills includes;

- Blocks
- Puzzles
- Nesting cans or cubes

- Stacking rings
- Large crayons
- Chalk
- Paint brushes
- Dolls

REFERENCE

Sciarra, D.J.; Dorsey, G. (1998) Developing and Administering a Child Care Centre (Fourth Edition). Delmar Publishers New York.

UNIT 6: TECHNIQUES FOR TEACHING NURSERY SCHOOL AND DAY CARE CHILDREN

Introduction

Nursery school is a school where children learn as they play under the guidance of well trained teachers. It is a school for children between the ages of one and five years. Staff with qualified teachers and caregivers while day care is a centre where infants and toddlers are taken care of.

Objective

At the end of this unit, you should be able to enumerate five techniques for teaching nursery school and day care children.

How to Study this Unit

1. Before reading this, make sure you go through the word study.
2. As you need though the word study, take note of unfamiliar words and check for the meanings in your dictionary, Home Economics textbooks and internet.
3. Follow this unit step-by-step as it has been arranged for you.

Word Study

Study these words carefully;

- **Techniques:** Methods or procedures.
- **Teaching:** The act of imparting knowledge to an individual
- **Nursery School Children:** Children who attend school before the primary school age.
- **Day Care Children:** Children who are infant and toddlers that are cared for in the centre.

The various procedures/techniques that can be used for teaching nursery school/day care children include;

1. Learning should be through repetitive method in the learning activities need to be kept short and integrated with play.
2. Variety of learning materials should be provided with quiet activities.
3. Teachers should be patient to listen and answer children's questions and give them explanation as well.
4. Teachers should avoid comparism between children especially boys and girls.
5. Children should be allowed to use hand that they are endowed with for writing.
6. Teachers writing on chalkboard should be bold and clear.
7. Teachers should teach pupils and encourage them to talk back.
8. Teachers should expose pupils to real life situation.

Activities

Visit a nursery school around your locality observe and write down the techniques the teacher uses on teaching the children.

Question

Write five (5) techniques for teaching nursery school/day care children.

SUMMARY

Nursery school is a school where children learn as they play under the guidance of well trained teachers.

Techniques used for teaching nursery school children include;

- Apply learning activities that are short and integrated with play.
- Provide a variety of learning materials
- Teachers should be patient to listen and answer children's questions as well as give explanation as well.
- Teachers should avoid comparison between children especially boys and girls.
- Children should be allowed to use their hands for writing activities.

REFERENCE

Sciarra, D.J.; Dorsey, G. (1998) *Developing and Administering a Child Care Centre* (Fourth Edition). Delmar Publishers New York.

Hildebran, V. (1997) *Parenting, Reward and Responsibilities* Glencoe McGraw Hill New York.

UNIT 7: PARENTING SKILLS

Introduction

Parenting is not the same as parenthood, which means to be a father or a mother. All people who care for children, whether on full or part time basis use parenting skills. Parenting skills therefore refer to those skills that are used by the caregivers.

Objectives

At the end of this unit, you should be able to:

1. Define parenting skills
2. List the three (3) basic parenting skills.
3. Explain any of the three (3) basic parenting skills.

How to Study this Unit

1. Before reading through this unit, go through ward study.
2. Take note of unfamiliar words, look up in your dictionary, home economics book and internet for the meanings.
3. Study the unit step by step as it has been arranged for you.

Word Study

Study these words before you read on:

Parenting – Act of taking care of children

Parenting skills – Basic skills used by people who care for children.

Parenting Skills

The three basic parenting skills are providing physical care, nurturing and giving guidance.

Providing Physical Care – All children have certain basic needs, which are the need for food, clothing, shelter, health and safety. Children are unable to satisfy these needs for themselves, they are totally dependent upon caregivers to meet these needs.

Nurturing – To nurture means to support and encourage. Nurturing involves giving children attention, love and a sense of security, children need encouragement and praise when they try various tasks. They need comforting when they are upset or hurt. Above all, they need to know that their parents and caregivers really care about them.

Providing Guidance – Guidance refers to the words and actions that activities used to influence children's behaviour. Guidance help children understand what type of behaviour is acceptable and what type is unacceptable. It also help children learn the difference between right and wrong.

Activities

1. Write four (4) steps on how a caregiver will provide physical care for children.
2. Enumerate four (4) effective guidance techniques that can be used by parents / caregivers.

Questions

1. What are parenting skills?
2. List the three (3) basic parenting skills.
3. Briefly explain any of the three basic parenting skills.

SUMMARY

Parenting skills refers to those skills that are used by the caregivers.

Some of the basic parenting skills are;

- 1) Providing physical care: such as the need for food, clothing, shelter, health and safety.

- 2) Nurturing: means to support and encourage, it involves giving attention, love and a sense of security to children.
- 3) Providing guidance: it gives a sense of direction to the child and helps the child differentiate between right and wrong.

REFERENCE

Hildebran, V. (1997) Parenting, Reward and Responsibilities Glencoe McGraw Hill New York.

UNIT 8: CHILDREN WITH SPECIAL NEEDS

Introduction

Children with special needs may have a physical, emotional, cognitive and / or learning disability. Each type of disability varies from slight to severe. Parents and caregivers of children with special needs face various challenges depending on the disability. To be able to cope with these challenges certain strategies must be embarked on.

Objectives

At the end of this unit, you should be able to:

1. Define the following: (i) parenting (ii) children with special needs
2. Explain four (4) strategies for parenting children with special needs.

How to Study this Unit

1. Before reading through this unit, go through ward study.
2. Take note of unfamiliar words, look up in your dictionary, home economics book and internet for the meanings.
3. Study the unit step by step as it has been arranged for you.

Word Study

Study these words before you read on:

Parenting – Means providing care, support and love in a way that leads to a children total development. It means creating a nurturing environment of attention, encouragement and love for the children. It also means providing guidance for the child. Thus parenting involves meeting the child's physical, mental, emotional and social needs.

Children with Special Needs – Children that have a physical, emotional, cognitive and / or learning disability.

Strategies for Parenting Children with Special Needs

To provide love, care, support to children with special needs, parents and caregiver should:

1. **Deal with Emotions** – Parents and caregivers must deal with their emotions as well as the emotions of their child. They should honestly examine their thoughts and feelings about the disability.
2. **Having a Positive Attitude** – The attitude of parents and caregivers can greatly influence how well a child accepts and deals with a disability. Parents should focus on the very positive aspects of the child's entire being.
3. **Identify Children's Strength** – Parents, caregivers and teacher of children with special needs should focus on the children's potential strengths rather than their specific limitations.
4. **Promote Independence** – Moving towards independence is as important for children with a disability, as it is for other children. Some children with disability need extra help in learning to do tasks such as eating, bathing, dressing. Parents should patiently teach their children how to do these tasks.
5. **Locate Resources** – Rearing a child with special needs can be overwhelming at times. It is important that parents locate various resources that can help them meet the needs of both the child with the disability and the rest of the family.

Activities

Write five (5) resources that can help meet the needs of children with disability around your locality.

Questions

1. Give the meaning of the following: (i) parenting (ii) children with special needs.
2. Briefly explain four (4) strategies for parenting children with special needs.

SUMMARY

Preventing refers to the provision of care, support and love in a way that leads to a child's total development.

Children with special needs include children that have physical, emotional, cognitive and/or learning disability.

Some of the strategies for preventing children with special needs includes;

- 1) Deal with emotions; honestly examine your thoughts and feeling about the disability.
- 2) Possess a positive attitude.
- 3) Identify children's strength and focus on their strengths.
- 4) Promote independence especially with tasks such as eating, bathing, and dressing.
- 5) Locate resources; search for alternative sources of employment.

REFERENCE

Sciarra, D.J.; Dorsey, G. (1998) *Developing and Administering a Child Care Centre* (Fourth Edition). Delmar Publishers New York.

Hildebran, V. (1997) *Parenting, Reward and Responsibilities* Glencoe McGraw Hill New York.

UNIT 9: PUBERTY AND ADOLESCENCE

INTRODUCTION

Puberty is the stage of growth and development when males and females becomes physically able to reproduce while adolescence is a time of increased awareness of sexuality because of the physical and emotional changes that occur. Puberty marks the beginning of adolescence, usually between the ages of eleven and fourteen. However, puberty may occur as young, as nine years of age. During puberty, adolescents experience changes in their body shape, boys and girls develop the respective physical characteristics of men and women.

Objectives

At the end of this unit, you should be able to;

1. Define the term puberty and adolescence
2. State four physical characteristics develop by boys and girls during puberty.

How to Study this Unit

1. Before reading this, make sure you go through the word study.
2. As you need though the word study, take note of unfamiliar words and check for the meanings in your dictionary, Home Economics textbooks and internet.
3. Follow this unit step-by-step as it has been arranged for you.

Word Study

Puberty: The stage of growth and development when males and females become physically able to reproduce.

Adolescence: A time of increased awareness of sexuality because of the physical and emotional changes that occur.

Physical Characteristics: Changes experience by boys and girls in their body shape. The physical characteristics of puberty in girls are;

- Menstruation begins
- Enlarged breasts
- Widening of the hips
- Appearance of pubic and underarm hair.

The physical characteristics in boys are;

- Penis and testes grow larger
- Shoulders broaden
- Body hair develops under the arms, in the pubic region and on the legs.
- Voice changes
- Masturbation begins.

Activities

Draw and label the diagram of a female and male reproductive organ.

Questions

1. Briefly explain the meaning of puberty and adolescence?
2. State four physical characteristics develop by boys and girls during puberty.

SUMMARY

Puberty is the stage of growth and development when male and female children become physically able to reproduce, while adolescence is a time of increases awareness of sexuality because of the physical and emotional changes that occur. Physical characteristics that develop in boys and girls during puberty

Signs of puberty in girls

- Menstruation begins
- Enlarged breasts
- Widening of hips
- Appearance of public and underarm hair.

Signs of puberty in boys

- Penis and testes grow larger
- Shoulders broaden
- Voice deeper
- Body hair and underarm hair develops as well as public hair.

REFERENCE

Hildebran, V. (1997) Parenting, Reward and Responsibilities Glencoe McGraw Hill New York.

UNIT 10: HYGIENE DURING PUBERTY

INTRODUCTION

The adolescent period is marked by the arrival of the first menstruation for girls. This situation may be embarrassing to the girls who do not know how to take care of the body. It is therefore necessary for parents, teachers and guardians to teach females about cleanliness during menstruation.

Objectives

At the end of this unit, you should be able to enumerate five (5) ways of maintain personal hygiene during puberty.

How to Study this Unit

1. Before reading this, make sure you go through the word study.
2. As you need though the word study, take note of unfamiliar words and check for the meanings in your dictionary, Home Economics textbooks and internet.
3. Follow this unit step-by-step as it has been arranged for you.

Cleanliness during Menstruation

- The girl need to frequently change or remove and dispose used sanitary pads.
- She should be educated on the type of sanitary towels to buy because they are many in the market.
- She should be taught how to use them and how to dispose them after usage.
- Pants should be washed and changed regularly.
- Girls should not use rags or used cloths as sanitary materials as they could introduce some infection into the private part.
- The practice of washing the body regularly at three times a day during the period is encouraged.
- Body cleanliness at this period is very necessary for good health.

Care of the Body During Puberty

The care of the body during puberty include;

Girls and boys;

- Should bath after any activity
- Dress worn for sports or other rigorous activities should be washed regularly.
- Special care should be given to clothes worn as underwear.
- Skin should be properly cared for
- Brushing teeth in the morning and when going to bed.

Activities

Draw and label five items that can be used for taking care of the body during puberty.

Questions

Write five ways of maintaining hygiene during puberty.

SUMMARY

Hygiene maintenance during puberty in boys and girls

- Take your bath after any activity.
- Wash clothes regularly especially underwears.
- Brush teeth in the morning and before going to bed.
- Shave underarm hair and public hair.

REFERENCE

Sciarra, D.J.; Dorsey, G. (1998) *Developing and Administering a Child Care Centre* (Fourth Edition). Delmar Publishers New York.

Hildebran, V. (1997) *Parenting, Reward and Responsibilities* Glencoe McGraw Hill New York.

ANSWERS

MODULE 1

UNIT 1

1.
 - (a) To provide technological literacy to all pupils thus preparing school pupils for life in a technological age.
 - (b) To equip school leavers with skills to earn a living.
 - (c) To stimulate and encourage creativity.
 - (d) To provide awareness that technology solves and create problems as well.
2.
 - (a) Vocation: Vocation is one's chief gainful pursuit or occupation by which an individual social and economic conditions are determined.
 - (b) Skill: This is the specific abilities required of an individual in order to facilitate the learning and doing of tasks, or jobs or work or duty.
 - (c) Vocational training: Skill development through imitation, observation, personal initiative, etc.
3. Occupation: this is one's primary work role in the world of paid employment, occupation goes with some monetary reward for work done while, Skill is the specific abilities required of an individual in order to facilitate the learning and doing of tasks, or jobs or work or duty.

UNIT 2

1. In the 1900, when the missionaries arrived, Lagos board of education passed a resolution that there was need to provide comprehensive scheme of public instruction in liberal education to prepare the youth for husbandry and craft.
Then 1929, a technical instructor was employed from Britain and a technical training scheme began. There was a neglect of vocational and technical education, until after the war, the government to recognize the value of vocational education. This brought about the establishment of three trade centres in Enugu, Yaba and Zaria.
2.
 - (i) The Comparative Education Studies and Adaptation Centre (CESAC)

- (ii) The Nigeria Educational Research Council (NERC)
- (iii) National Commission for Colleges of Education (NCCE)

UNIT 3

1. A) All courses in vocation and technical education introduce the learner to acquisition of manual skills in an area or a vocation.
B) Courses are capital intensive because they involve the use of high technical facilities which must be provided before the accreditation of the course.
C) All courses stimulate and encourage creativity in the learners.
Courses are offered termly or seasonally
2. (a) Lack of enough infrastructure and material for the programme.
(b) Lack of enough time for teaching/learning of vocational skills.
(c) Inability of vocational education to achieve the status and prestige needed to perform its proper and vital role in technical society.
3.
 - a) High recognition and popularity should be given to VTE with all necessary incentives.
 - b) Workshops, laboratories, fields, classrooms should be constructed to create the necessary space for the teaching and learning of VTE with modern equipment.
 - c) Allocation of greater part of the available time should be accorded to VTE so that all the details of the syllabus will be covered with practical exposure.

UNIT 4

1. Home Economics is defined as a multidisciplinary subject that covers a very large area and draws from many other disciplines like arts and sciences in solving physical, social and economic problems of families and individuals.
2. (i) It prepares students for family and community living.
(ii) It provides an opportunity for creativity.
(iii) Home Economics helps in the development of the individual.
(iv) It gives an individual the ability to adapt to changing environment.
3. (i) Education
(ii) Housing
(iii) Clothing, structure, design and theory
(iv) Communication

(v) Human nutrition and dietetics.

UNIT 5

1. (i) Making every Nigerian a worthy member of the larger Nigerian family.
 - V. Establishing fruitful and happy family relationships among family members.
 - VI. Developing necessary competencies required and necessary for nation building.
 - VII. Education the Nigerian youth on the dangers and consequences of drug abuse.
2.
 - (i) To establish values which gives meaning to personal, family and community living
 - (ii) To create a home and community environment conducive to the healthy growth and development of members of the family at all stages of family cycle.
 - (iii) To achieve good interpersonal relationships with the home and the community
 - (iv) To nurture the young and foster their physical, mental and social growth and development
3. (i) Developing the individual to his maximum capacity
 - (xii) Acquiring ethical ideals and appreciation for high standards
 - (xiii) To improve the services and goods used by the family

UNIT 6

1.
 - a. The Catholic Nuns
 - b. Miss Blackwell
 - c. Miss Gladys Plumer
 - d. Miss Baker and Mrs. E. Richard
 - e. Mary Slessor
2.
 - a. Homewifery
 - b. Laundry
 - c. Needle work
 - d. Cookery
 - e. Embroidery and childcare

UNIT 7

1. Teaching

Social welfare work

Community nutrition

Home economics research

Community nutrition

2. Fashion illustrator:

There the home economist makes drawings that interprets the design for a pattern or fabric. The emphasis is the production of costume accurately with all the accessories to tempt people to purchase it.

Extension Service:

Home economics in agricultural and home economics extension service work with adults as home demonstrators and with adolescents in social clubs. They provide leadership and guidance for the development of programme dealing with family living.

UNIT 8

1.

- a. The joint consultative committee should advise the National Manpower Board on the importance of home economics and so recommend that it be included in the priority list as an area requiring scholarship awards from the federal and states ministries of education and to encourage those interested to choose it as a career.
- b. The joint consultative committee should recommend to the various bodies to reserve a reasonable number of scholarships for home economics.
- c. The joint consultative committee should recommend that home economics be made available to girls and any others requiring it

2.

- (i) Building home economics into the curriculum of primary schools.
- (ii) Making home economics compulsory for secondary school girls in the first three years.

UNIT 9

1.

- a. Good character
- b. Ability to love
- c. Ability to continue to learn
- d. Ability to be adaptable
- e. Possess a clear knowledge of her students.

2.

- I. Problem solver: - This is a primary aspect of the role of the teacher. Home economics teacher is constantly required to make diagnosis and decisions about problems related to learning and to human relations.
- II. She can serve as a consultant to primary school teachers as they prepare simple nutrition units.
- III. She acts as a counselor of the students requiring special help in terms of career expectations.
- IV. She can help provide leadership in the growth of the profession of home economics in general and help students to find satisfaction in the profession.

UNIT 10

I.

- a. Show a genuine interest in people and their welfare
- b. Be courteous, kind, tactful and understanding
- c. Be tolerant of the opinions, likes and dislikes of others
- d. Be open-minded in matters under consideration
- e. Be well groomed

II.

- 1. The home economics teacher needs to be familiar with some civic leaders; women who are active in various organizations like the parent/teachers association and women's clubs.

2. The home economics teacher can do much to help reduce the migration of youngster to the urban areas by improving the quality of life for the rural families.
3. The home economics teacher could work with the community leaders to form co-operative bodies who will in turn, with the assistance of the government, form same scale industries.

MODULE 2

UNIT 1

ACTIVITY I

- a. Natural fibres and man-made fibres
- b. Staple fibres: These are short fibres that are measured in inches or fractions. They are fibre limited length.

ACTIVITY II

- a. Textiles is a raw material or raw materials used in making household articles such as bed sheets, window blinds, cushion covers, chair back rest, curtains, carpets, etc.
- b. (i) To enable one to treat them correctly during construction.
 (ii) To know the most suitable uses of each textile materials.
 (iii) To know how to clean them when they are dirty.
 (iv) To know how to care for them and also to ensure durability in relation to price.

UNIT 2

1. Cotton, linen, wool, silkm nylon and rayon.
2. Cotton

PHYSICAL PROPERTIES	CHEMICAL PROPERTIES
It burns quickly and gives off a small of burning paper. It absorbent. Cotton fabrics are strong.	Cotton is easily attack by mildew. Cotton is not affected by moths or insects. It is damaged by strong acids.

Silk

PHYSICAL PROPERTIES	CHEMICAL PROPERTIES
<p>Silk is elastic.</p> <p>It smells like burning feather.</p> <p>Silk is very expensive.</p> <p>It is heavy and bulky.</p>	<p>It is not affected by dry-cleaning solvents.</p> <p>It is damaged by substances containing chloride salts.</p> <p>It is damaged by conc. acids.</p>

Rayon

PHYSICAL PROPERTIES	CHEMICAL PROPERTIES
<p>Rayon crease easily</p> <p>Rayon is flammable</p> <p>Rayon is absorbent</p>	<p>It is not affected by moths or insects.</p> <p>It is not affected by mildew.</p>

UNIT 3

ACTIVITY I

1. Beam

Harnesses

Heddle or Heald

Reed

Filling

Filling yarn carrier

Weaved cloth

Breast Beam

Rolled Weaved Cloth.

2. Plain weave

Twill weave

Satin weave

Pile weave

Leno weave

Knitted fabric

ACTIVITY II

1. Woven fabric

This is the fabric constructed by weaving process. It consists of two sets of yarns namely; warp yarn and weft yarn.

Non-woven fabric

These are fabric made directly from loose fibres, it originates from raw materials that save the finance cost of processing.

2. (i) It is used in the construction of fabrics.

(ii) It is used in keeping the warp threads evenly spaced across the cloth.

(iii) It is used by the weaver to get the designs on fabrics during construction.

(iv) It is used by the weaver to get the exact length and width of the fabric.

UNIT 4

ACTIVITY I

1. Plain dyeing

Tie and dyeing

Batik dyeing

Printing

2. Four (4) rules for dyeing are:

(a) Wearing overall or apron and rubber hand gloves on your hands to prevent them from chemicals used.

(b) Never put spoons that have been in other colour of a dye.

(c) Never put wet or damp spoons into a jar of dry dye powder.

(d) Keep dye away from light and keep in a dark cupboard, when it is not in use.

ACTIVITY II

1.

(i) Dissolve the dye powder and other chemicals into solution in the dye bath.

(ii) Stir them together very well and leave for 5 minutes.

(iii) Wash the fabric to be dye with ordinary water to remove the excess starch (10minutes).

- (iv) Dip the fabric into the dye solution and stir constantly for the first 10 minutes for even distribution of dye.
 - (v) Leave the fabric in the dye solution at least for 45 minutes – an hour.
 - (vi) Remove from the dye solution.
 - (vii) Squeeze out the dye solution and rinse in clean water.
 - (viii) Loose the knots and spread out on plywood or flat surface to dry. Then iron out the creases when the fabric dries but starching is optional.
2. Printing: This is a method of producing coloured patterns or motifs on the surface of the fabric different from the original background.

UNIT 5

- 5. Fabrics are used for accessories e.g. interfacings, linings, trimmings, etc.
- 6. They are used for furnishing e.g. carpet, chair covers and curtains.
- 7. They are used as household linen e.g. bed sheets, table cloths and towels.
- 8. They are used for personal clothing foundation garments, underwears and outer garments.

UNIT 6

ACTIVITY I

- 1. Natural fibres
Man-made fibres
- 2. Vegetable fibres – e.g. cotton, linen, jute, hemp, kapok, ramie.
Protein fibres – wool, silk

ACTIVITY II

- 1. Synthetic fibres
Regenerated fibres
Metal fibres
- 2. Glass fibres
Metallic fibres

UNIT 7

- 1. (i) Lustra of sheen finishes

(ii) Mercerization

(iii) Water-Repellant finishes

(iv) Shrink-Resistant finishes

2. Purification

This is a method or term given to the purification process that loosens, the dirt, grease and other impurities.

Colouring

This process allows the fibre or fabric to be coloured to the desire of the producer. It can be dyed or printed on with motifs on the surface of the fabrics.

UNIT 8

1. Lengths of fibres

(a) Filament yarns (b) Staple yarns

Number of filaments

(a) A multi-filament yarn

(b) A mono-filament yarn

UNIT 9

1. (i) Microscopic Examination

(ii) Burning Test

(iii) Staining Test

(iv) Solvent Solubility Test

2. Rayon – Grey ash

Cotton – Yellow colour

Linen – Yellow colour

UNIT 10

1. Loom

Heddles or Heralds

Harnesses

Beam

Breast Beam

Reed

Shuttle or filling carrier

Bobbing roller for threads.

2. (I) A loom must be correctly constructed, considerably used and regularly serviced.
(II) Clean them after use, sand paper all those tools and other materials that need to be sand papered before and after use.
(III) Do not put them in a place where they are to be cracked or damaged

MODULE 3

UNIT 1

1.
 - a) A standard kitchen should be a building that is free from distractions, noise, intruders, traffic and other obstructions.
 - b) All facilities are arranged in sequence to suite specific tasks.
 - c) It is well lighted and ventilated.
 - d) Appliances found are mostly electrical and manual.
 - e) It should have specific work center and table and tops.
2.
 - A) Food and Nutrition
 - B) Clothing and Textile
 - C) Home Management
 - D) Marriage and Family Relationship
 - E) Home Economics Education

UNIT 2

1.
 - (a) Corridor type
 - (b) L-Shaped type
 - (c) U-Shaped type.
2. Two characteristics of traditional kitchen
 - (i) They are constructed as separate units from the main compound building.

- (ii) Tasks are often carried out sitting down, tools and articles are not well arranged.

Two characteristics of modern kitchen are:

- (i) This is part of the main building and located close to the dining area of the room.
- (ii) Tasks are often accomplished by standing and arrangement of items is orderly.

UNIT 3

1. The following are factors to consider when planning a kitchen.
 - (a) Ceiling
 - (b) Walls
 - (c) Floor
 - (d) Lighting system
 - (e) Water supply
 - (f) Drainage ventilation
2. (a) **Water Supply:** A good water supply to the kitchen is essential for efficient and quick working in the kitchen. It helps in making the kitchen tidy.
- (b) **Ventilation:** Good ventilation contributes to the maintenance of comfort in the kitchen. Adequate provision must be made for cross ventilation to get rid of the heat generated during the cooking process.

UNIT 4

1. a. Large equipment
 - b. Mechanical equipment
 - c. Utensil and small equipment
2. (i) Refrigerators
 - (ii) Food mixers
 - (iii) Food slicers and choppers
3. The instruction leaflet is a guide for
 - (a) The maintenance of items
 - (b) The assembling of the items
 - (c) Proper use of the items

UNIT 5

1. (i) Cooking pots
(ii) Knives
(iii) Plates and spoons.
2. The knives usually made of stainless steel, is used for chopping, vegetables, cutting meals and fish etc.
3. Some points to be considered when purchasing kitchen equipment are;
 - i) Money at hand
 - ii) Size of the kitchen
 - iii) Type of activities to be carried out in the kitchen.
 - iv) The size and composition of the family.

UNIT 6

- i)
 - a. Food preparation/mixing centre
 - b. Cooking and serving centre
 - c. Cleaning and washing centre
- ii)
 - a. Back of doors
 - b. On the wall
 - c. Inside cabinet
- iii)
 - (a) The sink should be located or placed under a window.
 - (b) Orderly arrangement and availability of small equipment are also important.
 - (c) Some dish storage may be above the drain board in the cleaning and washing centre.
 - (d) Each work centre should have storage space for equipment and supplies that are in frequent use.

UNIT 7

1. Personal Hygiene: This involves keeping hands clean before work in the kitchen, avoiding the use of long finger nails and employing the use of kitchen cap and apron.
2. Four sanitary procedures to observe in the kitchen are:
 - i) Wash hands with soap and clean water, rinse and wipe them dry before beginning to work in the kitchen after visit to the toilet.

- ii) Avoid having long finger nails and the use of nail polish.
 - iii) Avoid the use of jewelry on the fingers.
 - iv) Always wear a clean apron or overall.
3. Five rules for kitchen hygiene
- a) Keep work surfaces clean at all times wiping up any spoilage at once.
 - b) Use only clean utensils and dishes in the preparation and service of food.
 - c) Cover the dust bins with fitting lids and empty them regularly.
 - d) Keep refrigerator and other food storage places very clean.
 - e) Wipe down shelves regularly to prevent cockroaches and other pests.

UNIT 8

- 1. Do not wear high level heel shoes in the kitchen to prevent falling.
- 2. Do not allow children into the kitchen.
- 3. Carryout all cuttings in the kitchen on the chopping board to prevent knife cuts.

UNIT 9

- 1. First aid is the initial treatment given to sustain the victim of an accident before the arrival of a doctor.
- 2.
 - i) Assorted adhesive dressing
 - ii) Triangular bandage
 - iii) Roller bandage
 - iv) ½ or packet of cotton wool
 - v) Scissors with blind point
 - vi) Small size prepared sterile dressing
 - vii) Antiseptic cream
 - viii) Iodine
 - ix) Blades
 - x) Soap
- 3.
 - i. Stop the bleeding by applying pressure on the bleeding part.
 - ii. Put a clean dressing in the form of a wade and bandage tightly against the wound.

- iii. If the wound is deep, refer it to the doctor immediately so that the wound may be stitched and anti-tetanus injection given.

UNIT 10

1.

1 tablespoon (tbsp)	=	3 teaspoons (tsp)
1/16 cup	=	1 tablespoon
1/8 cup	=	2 tablespoons
1/6 cup	=	2 tablespoons + 2 teaspoons
1/4 cup	=	2 tablespoons
1/3 cup	=	5 tablespoons + 1 teaspoon
3/8 cup	=	6 tablespoons
1/2 cup	=	8 tablespoons
2/3 cup	=	10 tablespoons + 2 teaspoons
3/4 cup	=	12 tablespoons

2. (i) Heat the oven by the method suitable for each particular type.
- (ii) Place a piece of white paper in the oven for the 2 – 3 minutes. If the paper is;
- | | | |
|------------------|---|---------------------|
| a) Black | - | Temperature of oven |
| b) Dark brown | - | Too hot |
| c) Golden brown | - | Very hot |
| d) Light brown | - | Hot |
| e) Light brown | - | Moderately hot |
| f) Light biscuit | - | Slow |

MODULE 4

UNIT 1

1. Concepts – These are ideas brought together to draft pattern for garment construction for the individual.
2. These concepts are;
 - a. Plotting points
 - b. Joined
 - c. Curves
 - d. Straight lines
3. The reason why the dressmaker take measurement is to enable her to get the amount of material needed and also to get the correct fit of the wear.
4. Pattern is a draft made by the dressmaker with measurements, shaped, cut out and used in cutting materials.
5. Patter drafting is the plotting of points and joined with curves and straight lines to form the pattern.
6. The use of pattern to cut by the dress maker enables her to cut and sew a perfect fit for the wear.

UNIT 2

1. Pattern marks are instructions written on pattern pieces as guides for the dressmaker.
2. Pattern layout is the arrangement of paper pattern pieces on the fabric before cutting out.
3. Pin all the pieces of the pattern blocks in place to prevent them from slipping
4. Check the grains on the pattern piece.

UNIT 3

1. Body parts are those areas measured to bring out the whole.

This measurement is taken to enable the dressmaker to get the curves and the straight lines of the body.

2. The term accurate means something done that has no error.
3. a. The tape measure should be held strongly and firm but tightly against the body.

- b. The figure should stand well and relax when being measured.
 - c. Do not push in your stomach when you are being measured for garment construction.
4. The dressmaker needs accurate measurements to enable her to get the correct fits of the individual.

UNIT 4

1. Flat pattern is the art of drafting pattern with a given measurements of a particular figure type.
2. Reasons are:
 - a. To get the accurate fit.
 - b. To ease the work of the dressmaker.
3. Model stand is an image by the dress maker to bring the outfit of the garment before construction.
4.
 - a. It brings out the outfit of the garment.
 - b. It shows where amendment is needed to the dressmaker.

UNIT 5

1. Draping method is the art of fitting cloth into the curve of a dress form.
2. After construction, the garment looks loosely when sewn.
3. Dart is a fold of material made and sew at the waist, bust and shoulders of garments.
4. Underarms dart, shoulder dart and waist dart.
5. Darts are made on garments in order to get the accurate fit of the garments.

UNIT 6

1. The clothing terms include

- | | | | | |
|-------------------|-------------|------------|-------------|-----------|
| i. Clothing | ii. Culture | iii. Dress | iv. Costume | v. Fabric |
| vi. Fabric finish | vii. Grain | viii. Seam | ix. Warp | x. Weft. |

2.

- Clothing- Any article placed on the body to protect, beautify, identify and show the status of the wearer.
- Dress – A piece of clothing worn by a woman or girl that covers her body.
- Costume – A set of clothes that are typical of a particular place or historical period of time.

- Grain – The direction of yarns or threads in a fabric.
- Seam – A line of stitching, joining two or more pieces of fabric together.

UNIT 7

1. The three group of stitches are
 - i. Temporary stitches
 - ii. Permanent stitches
 - iii. Decorative stitches

Examples of temporary stitch are even tacking, long and short tacking, tailors tacking and diagonal tacking.

Permanent stitches e.g. hemming, running stitch, overcasing, blanket stitch.

Decorative stitches e.g. chain, fern, herringbone, satin, stem, etc.

2. The general rules are
 - Choose the correct stitch for the work to done.
 - Use the correct size of needle and the sight type of thread for the material.
 - Wear a thimble on the middle finger of the hand.
 - Work out one stitch at a time.

UNIT 8

1. Clothing tools are instruments that are hold in the level for making or replacing garments in the clothing and textile laboratory while clothing equipment are large solid items that are used for garment construction in the clothing and textile laboratory.
2. Ten (10) examples of sewing tools are
 - (i) Scissors (ii) shears (iii) tracing wheel (iv) thread (v) dressmaker pins
 - (vi) pin cushion (vii) needle (viii) tape measure (ix) metre stick (x) sewing box.
3. For examples of sewing equipment are
 - (i) Sewing machine (ii)Table (iii) Iron (iv) Ironing board
4. Scissors: Select scissors made of high quality steel.
Care

Store scissors in a drawer to avoid dropping them on the floor.

- Do not use scissors meant for cutting fabric for paper.
- Protect scissors from rust
- When the handle becomes hard, apply machine oil to the joint.

5. Needles: Select sharp, slender and medium length needles.

Care

- Should be stored properly when not in use.
- Use pin cushions to hold needles.

6. Tape measure: Select tape measure 60 inches long made of firm material with metal tips at each end.

Care

- Roll tape measure up when not in use and store in sewing box.

7. Dressmaker pins: Select pins that are rust proof and have sharp points.

Care

- Use pin cushion to hold pins when not in use.

8. Pin cushion: Select a small pin cushion with an elastic wrist band that is filled with wool or hair.

- Store in the sewing box.

9. Sewing machine – Select the best that can be afforded and easily operated.

Care

- Read the instruction booklet before operating the machine.
- Clean machine frequently.
- Oil machine according to frequency of use.

10. Table

Select tables that are firm, smooth and of reasonable height.

Care

Clean table surface daily.

11. Mirror: Select a full length mirror.

Care

Mirror should be cleared regularly with a lintless cloth.

UNIT 9

- 1) Good grooming is the act of taking care of one's personal appearance.
- 2) Soap
 - Deodorant
 - Perfumes
 - Nutritious food
 - Brush and toothpaste
 - Make up
- 3) – bathing with soap and water daily.
 - Brushing teeth well with brush and good branded toothpaste.
 - Hair should be well shampooed and conditioned.
 - Applying make-up and perfume lightly.
 - Use of deodorants.
- 4)
 - a) Party clothes – Gowns, suits, etc
 - b) Sports – free for easy movement of the body. A pair of shorts worn and a blouse, fabric should stand frequent washing.
 - c) School – Uniforms depending on each school choose. They should be durable, colour fast and easy to be clean.

UNIT 10

- 1) Unit construction is an organized way of constructing a garment, unit by unit while unit is simply any one part of a garment.
- 2)
 - Parts of the garment which go together can be found easily because they are kept together in units.
 - Each piece of the garment is handle less.
 - The time used in making the garment is shortened.

MODULE 5

UNIT 1

- 1) Wardrobe planning is the process of planning for the clothing needs of an individual or the entire family.
- 2) Factors to be considered when planning a wardrobe are
 - i. Weather condition
 - ii. Colour plan
 - iii. Personal features
 - iv. Money

See steps in wardrobe planning

UNIT 2

1. Family size is the number of people that constitute a family.
2.
 - i. Infants: The clothing needs of infants include diapers, washable cotton or paper disposable form, waterproof parts, night wears, socks, caps, sweater, dresses bibs etc. Babies cloth should be soft lightweight, absorbent and washable.
 - ii. Adolescents: Clothing needs of adolescents take on a new meaning. Most of adolescents clothing choices are influenced by what a famous person wears. The style of a garment is more important to an adolescent than how it fits.
 - iii. Older adults: Older adults need clothes that suit their lifestyles, fit their figures and are comfortable. Garments with loose collars and sleeves are often preferred by both older men and women. They also require fabrics that are soft that will not irritate their skin and warm fabrics in cold weather.

UNIT 4

- Occupation
- Location
- Activities and interest
- Family structure
- Family values
- Family goals

UNIT 5

1. Consumer is one who purchases and used goods and services.

Consumer education is the process of helping individuals become informed consumer.

Impulse buying – purchasing something that you did not intend to buy.

2. By listening and reading advertisements.
 - By comparison shopping
 - By asking friends and family members
3. A consumer can avoid impulse buying of clothes by putting the following factors into consideration:

The need, money available and the budget, shopping ability, the cost in time, money and labour in keeping the clothes good looking, comparing prices and planning for the shopping in advance.

UNIT 6

- 1) Stains are spots or marks that stains our fabric and give it a different colour.
- 2) The four types of stains are as follows animals, vegetable, wax and perspiration.
- 3) To remove the following stains
 - a) Biro stain – For white garment, use warm dilute solution of potassium or bleach.
 - b) Palm oil – scrape, rub in turpentine. Rinse thoroughly.
 - c) Perspiration – Wash immediately according to fabric.

UNIT 7

1. Laundry is the act of washing clothes.
2. Soap, water, bleach and disinfectant.
3. Procedures – check clothes, mend, sorting, soaking, washing, drying, ironing and storage.
Processes – fetch water, add detergents and soap clothes, wash and rinse thoroughly.
4. Commercial dry cleaning – is laundry through dry cleaning of clothes.

UNIT 8

1. Renovating is the act of improving on the present state of an article or a garment.
2. Remodeling, re-construction, re-colouring and repairing.
3. The garments for renovation should not be too old.
 - The old garment should be taken apart, laundered and dried.

- The grain of the old fabric should be studied to make laying out of pattern pieces for the new garment easy.

UNIT 9

1. Darning – weaving similar threads into a torn article.
Patching – sewing a similar piece of fabric over a hole another article.
2. The three types of patches are
 - a) Darning a hole
 - b) Hedge- Tear darn
 - c) Machine darning

UNIT 10

1.
 - Steep in water for some hours
 - Add little synthetic detergent
 - Wash in warm water
 - Rinse thoroughly and dry
2. Steeping

MODULE 6

UNIT 1

(1) Food - is anything eaten or drunk which nourishes the body.

Nutrients - are substances found in foods which the body requires to work properly.

Nutrition - is the science of food and its relation to health.

(2) The six classes of food are

Food sources

(i) Carbohydrates - Yam, Cereals, Sugars, Potatoes, Cassava

(ii) Proteins - Milk, Eggs, Meat, Fish, Beans

- (iii) Fats - Butter, Margarine, Salad dressing, oils, sour cream, cheese
- (iv) Vitamins
 - Vitamin A → (Spinach, carrots, liver, milk, cheese, eggs)
 - Vitamin D → (Milk)
 - Vitamin E → (Vegetable oils, spinach, nuts, liver, seeds)
 - Vitamin K → (Spinach, Cabbage)
 - Vitamin B complex → (Cereals, peanut, meat, poultry, fish, eggs, milk)
 - Vitamin C → (Citrus fruits, broccoli, tomatoes, potatoes)
- (3) Carbohydrates - Provides the body with energy.
- Proteins - for building and repairing of body tissues
- Fats - The most concentrated form of food energy
- Vitamins - Regulates body processes
- Minerals - Make up part of the hard and soft body tissue
- Water - aids in digestion of foods.

UNIT 2

- (1) Meal planning is the process of designing balanced diets in the right proportion for a specific group of people.
- (2) The guidelines underlying effective meal planning are:
 - The meal must contain all the necessary food nutrients. Each of the five basic food groups must be represented.
 - The nutritional needs of the different groups of people in the family must be provided in the plan.
 - Avoid monotony by varying the foods.
 - Make use of foods in season which are normally cheaper and of good quality.

UNIT 3

1. Cooking is the application of heat on food in order to bring about physical and chemical changes.
2. Reasons for cooking food include: -
 - To destroy harmful bacteria.
 - To preserve the food.
 - To make food more digestible.
 - To improve the flavor and appearance so as to make it tasty.

UNIT 4

1. Four (4) methods of cooking under the moist heat methods of cooking include boiling, steaming, poaching, frying.
2. Boiling is the cooking of food in boiling water.
 - Steaming is a method of cooking food over boiling water rather than in it. It is a method of cooking food in steam rather than in water.
 - Poaching –to poach means to simmer food in a small amount of water so the food retains its shape.
 - Frying – is a method of cooking foods in fat/oil.
3. Examples of food suitable for boiling include rice, noodles, pastes, beans, corn, yam.
Steaming – suitable for vegetables, fish, poultry, meat and puddings.
Poaching – suitable for tender foods such are eggs, fish and fruit.
Frying – meat, poultry, fish, yam, some pastries can be fried.

UNIT 5

1. Examples of dry heat methods of cooking are baking, roasting and grilling.
2. Baking is a method of cooking food in an oven or oven-type appliance.
Roasting is a method of cooking food in an open fire or over heated charcoal, heated sand or ash and oven with the aid of fat/oil.
Grilling which is also called broiling is a method of cooking foods directly under or over the source of heat.
3. Foods suitable for baking include pies, bread, cakes, cookies.

- Foods suitable for roasting include tender cuts of meat, maize, groundnut, yam, fish, poultry.
- Foods suitable for grilling include tender cuts of meat poultry and fish, some vegetables and fruits.

UNIT 5

ACTIVITY I

Spices

- a. Salt
- b. Sesame seed
- c. Gloves
- d. Onions
- e. Ginger

HERBS

- a. Cinnamon
- b. Red sorrel
- c. Thyme
- d. Mint
- e. Parsley

ACTIVITY II

SPICES

- (a) It is used to balance the action of yeast in bread making.

It is used to enhance natural flavour and taste in food.

- (b) It is a good source of mineral and vitamins.

It is used to give aroma and taste on bread, cakes and biscuit.

- (c) It is used to give aromatic smell to savoury and sweet dish.

Its oil is used as a powerful antiseptic and cure of tooth ache. They have great medicinal effect.

(d) To prepare soups, stew and other dishes.

(e) To season meat, fish, poultry, cakes e.t.c.

To give a tenderising effect on meat.

HERBS

(a) Treatment of cold, diarrhea and menstrual cramps.

To prepare savoury and sweet dishes.

(b) To give a tenderising effect on meat.

A good source of food nutrient like Vitamin A, B, and C.

(c) To aid digestion of food.

To improve flavour in food

(d) It is used in stew and sweet.

It is insect repellent

(e) It is used in salad to give a mint taste and flavour.

UNIT 6

The advantages of boiling are:

- It is a quite method of cooking.
- Requires little fuel and attention

Disadvantages

- Water soluble vitamins are lost in water
- Food can be tasteless if not properly cooked.

Stewing

Advantages

- Food nutrients are conserved.
- Makes tough food tender and digestive.

Disadvantages

- Long and slow method of cooking.
- Requires more attention than boiling.

Steaming

Advantages

- Nutrients and natural juices are retained.
- Makes food lighter and easy to digest.

Disadvantages

- Food takes longer time to cook.
- Steamed foods lack flavor.

Frying

Advantages

- It is the quickest method of cooking.
- Makes food appetizing.
- Flavor of field foods are retained.

Disadvantages

- Requires careful and constant attention.
- Suitable for soft foods.

UNIT 7

Protein – protein foods such as eggs, meat and fish coagulate or harden and shrink when heated.

Carbohydrates – starch grains swell, break up, become softer and more digestible.

- Starch paste gelatinizes and forms a thick paste which thickens further and sets on cooling as agidi.
- Starch dextrinize when subjected to dry heat method of cooking.
- Sugar dissolves turns golden brown and finally caramelizes.

Cellulose – becomes softens when heat applied.

Fats

Fats will melt and become liquid when heat is applied.

Vitamins

Fat soluble vitamins are unaffected by cooking at normal temperature, but water soluble vitamins, B and C are easily lost during cooking.

Minerals

They are not usually destroyed by the cooking process, although some of them undergo chemical changes when cooked.

UNIT 8

1. A recipe is a set of directions used in cooking. It list the amounts of ingredients needed and also explain what to do with those ingredients.
2. Before choosing a recipe, it is important to look upon several recipes for the type of food you want to prepare, compare them and ask your sent these questions:-
 - Is this recipe appealing?
 - How long will the recipe take to prepare?
 - Do I understand all the step?
 - Do I have the skills needed?
 - Do I have the necessary equipment?
 - Are the ingredients available?
- 3.

Teaspoon tsp.

Cup c.

Gallon gal.

Liter L.

4.

Units	Customary equivalents	Metric equivalents
1 cup	8 fluid oz or 16 tbsp	250ml.
Dash	Less than 1/8 tsp	Less than 0.5ml
1 Fluid oz	2 tbsp	15ml.
1 pt.	2 cups or 16 fluid oz	500ml.

UNIT 9

Activity I

Mango fools

Recipe.

4 ripe mangoes

1 cup undiluted syrup evaporated milk.

Procedures

- (a) Wash and peel mango and cut up
- (b) Stew mango in syrup to make a pulp.
- (c) Served chilled.

(B) Protein

Fat

Vitamins

Water.

Activity II

- (a) Coca – cola
- Teem
- Mountain Dew
- 7up

Fanta

UNIT 10

Activity I

- a) Ghana
Nigeria
South America

- b) Traditional curing method
Wet curing method

Activity II

- a) Chinese green tea
Chinese black tea
Indian tea
Japanese green tea
Ceylon tea.

- b) Pour hot water to teapot and leave it into stand until thoroughly hot.
Pour off the water and put in the tea allowing two teaspoon to half litre of water.
Bring the water to a boil and pour immediately over the tea.
Infuse for three 3 – 4 minutes
Pour out at once after the infusion and serve hot.

MODULE 7

UNIT 1

1. The four steps involved in the Home Management process are
 - a) Planning
 - b) Organizing
 - c) Implementing
 - d) Evaluation

2. The role of evaluation in the Home Management process are:

- a) It reduces problems and improves the implementation of a plan.
- b) It analyzes results and provides effective judgement.

UNIT 2

1. In planning for a house, one should consider the following – weather, culture of the people, locality, tribe and the physical conditions of the area.
2. In planning to build a modern house these materials are necessary – burnt mud bricks, cement blocks, cement etc.

UNIT 3

A.

1. Human or non – material resources
2. Non – human or material resources

B. components of human resources are: energy, skill, knowledge, time, attitude and talent.

UNIT 4

1. The three sources of drainage are:
 - a) Toilet
 - b) Bathroom
 - c) Kitchen
2. The three types of drainage systems are:
 - a) Free drainage system
 - b) Open drainage system
 - c) Concealed drainage system.

UNIT 5

Activity I

1. Polishes
2. Waxes

3. Acids
4. Abrasive

UNIT 6

1. Metal sponge and sand paper.

UNIT 7

1. Household pests are some insects which are undesirable in the house. Mostly, they are found in kitchens, stores, cracks and crevices.
2. Cockroaches, houseflies, rats, bedbugs and ants.

UNIT 8

1. Bedroom, kitchen, toilet, bathroom, living room and dining room.
2. In caring for the kitchen, the following things must be done:
 - a. Clean and pay attention to places where food can come in contact.
 - b. Clean tables and surfaces in the kitchen.
 - c. Wipe plain wood tables
 - d. Sweep and mop.

UNIT 9

Social factors, religion and culture, family size, design of the house.

- The size of the family can affect the choice of house by the following:
 - i. If the house is small it may not content a family that it large e.g. a single room cannot be enough for a man with a wife and nine children.
 - ii. If the house is not enough, there may be problem of comfort and ventilation.

UNIT 10

Housing design is the plan or layout of a house.

MODULE 8

UNIT 1

1. Child development is a process of change in behaviour, growth and the general outlook of the child while a theory is an organized set of suggestions about facts or events that is developed through study and observation.
2. The theories of child development include:
 - i. To change a behaviour parents must reward or punish an existing behaviour.
 - ii. All young children have the ability and desire to learn words.
 - iii. Development stages occur in a set order.
 - iv. Children imitate the models around them.
 - v. Moral reasoning like thoughts occurs in stages among children.
 - vi. Parents, teachers and siblings aid a child's learning through use of language.

UNIT 2

1. Development refers to an increasing skill in physical, emotional, social or cognitive abilities.
2. The four stages are (i) physical development (ii) emotional development (iii) social development (iv) cognitive development.
3.
 - a. Social development refers to a child's growing ability to relate to other people.
 - b. physical development refers to a child's increasing ability to control and coordinate body movement.
 - c. Emotional development is a child's growing ability to express feelings.
 - d. cognitive developments sometimes called mental or intellectual development refers to child's growing ability to perceive, remember, think, reason and solve problems.

UNIT 3

1. The two factors are heredity and environment. Heredity is a combination of the physical, mental and emotional characteristics which a child obtains from his parents right from conception. While environment is the natural world where people live, which include all the conditions, circumstances and influences surrounding and affecting the development of a child.
2. The three factors are nutrition, hygiene and parental love.

UNIT 4

1. Toys and play materials are those materials that the child interact with when playing.
2. The importance of toys and play materials include:
 - Serve as tools for learning.
 - Enable the child to express himself in different ways.
 - Stimulate the child's memory and give him opportunities to reason.
 - Enable the child to develop imagination.
3. Guidelines for choosing toys and play materials
 - They should be durable and strong.
 - They should be suitable for the use of the child.
 - They should be large enough to prevent them being swallowed by the child.
4. They should be safe to use.

UNIT 5

1. Large Motor Skills	2. Small Motor Skills
- Wagons	- Puzzles
- Pull toys	- Nesting cans
- Balls	- Paint brushes
- Climbing gym	- Dolls
	- Cars

UNIT 6

- Teachers should be patient to listen and answer children's questions.
- Teachers should avoid comparison between children.
- Teachers writing on chalkboard should be bold and clear.
- Teachers should talk to their pupils and encourage them to talk back.
- Learning should be through repetitive method.

UNIT 7

1. Parenting skills are those skills that are used by people who care for children (caregivers).
2. The three basic parenting skills are:
 - Providing physical care
 - Nurturing
 - Providing guidance.
3. The students can explain any of the parenting of their choice.

UNIT 8

1. Parenting means providing care, support and love in a way that leads to a child's total development. Children with special needs are children that have a physical, emotional, cognitive and / or learning disability.
2. Strategies for parenting children with special needs are:
 - Deal with Emotions – Parents and caregivers must deal with their emotions as well as the emotions of their child.
 - Having a Positive Attitude – The attitude of parents and caregivers can greatly influence how well a child accepts and deals with a disability.
 - Identify Children's Strength – Parents, caregivers and teacher of children with special needs should focus on the children's potential strengths rather than their specific limitations.

- Promote Independence – Children with disability need extra help in learning to do tasks such as eating, bathing, dressing. So parents should patiently teach their children how to do these tasks.

UNIT 9

1. Puberty is the stage of growth and development when males and females become physically able to produce.

Adolescence is a time of increased awareness of sexuality because of the physical and emotional changes that occur.

2. The physical characteristics of puberty in girls are;

- Menstruation begins
- Enlargement of breast
- Widening of the hips
- Appearance of pubic and underarm hair

In boys are;

- Penis and testes grow larger
- Boys masturbate
- Shoulders broaden
- Voice changes.

UNIT 10

- Boys and girls should bath everyday and after any activities.
- Clothes worn for sports or vigorous activities should be washed regularly
- Special care should be given to clothes worn as underwear.
- Skin should be properly cared for
- Brushing teeth in the morning and when going to bed.