HOME SCIENCE NOTES

FORM 3 SIMPLIFIED VERSION

QUICK REVISION NOTES

An Updated Well-Organized Detailed Revision Notes for the Current Form 3 Syllabus.

SERIES 1

THIS IS A FREE SAMPLE OF THE ORIGINAL NOTES

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MEAL PLANNING

In form three, you will cover the following topics: **Meal planning and management** refers to the process of determining the foods to be prepared, cooked and presented to the family in order to meet its nutritional needs using the available resources. In form one, you learnt the different methods of cooking food. In form two you learnt about the various food nutrients and their functions in the human body. In this chapter you will be expected to apply this knowledge in planning, preparing and cooking meals for different groups of people.

Importance of Meal Planning

It ensures that:

1. Meals are served and presented attractively.

2. Meals are balanced to meet the nutritional needs of the family members.

3. Meals are enough in quantity to satisfy the individual.

4. Meal times are enjoyable.

Objective

By the end of the lesson you should be able to

1.state the importance of meal planning.

2. Meals are balanced to meet the nutritional needs of the family members.

3. Meals are enough in quantity to satisfy the individual

4. Meal times are enjoyable

Meal planning and presentation

After preparation and cooking, food needs to be served and presented at the dinning table. The art of food presentation is an important skill to a meal planner. Objective

By the end of the lesson you should be able to:

1. Plan suitable meals for special groups of people.
2. Practise meal preparation for special groups of people.
3. Present meals attractively.

Special groups of people

When planning meals for special groups of people, it is important to know their, nutritional needs in order to meet them. Some special groups of people include: Children, adolescents, the elderly, expectant and lactating mothers, invalids and vegetarians. Planning Meals for Children

When planning meals for children, ensure that:

* The food is rich in proteins, calcium, phosphorus, iron, carbohydrates and vitamins.
* The food is crunchy.
* The food is served on attractive dishes.
* The food should have vegetables.
* Plenty of fluids should be included for example fresh fruit juice. Planning Meals for Adolescents

Adolescents are young adults undergoing rapid growth, with huge appetite; hence consume large quantities of food. They are also very active. Ensure their meals:

* Are rich in energy-giving foods, that is carbohydrates and fats.
* Are served in large quantities.
* Have plenty of fresh fruits and vegetables.
* Provide plenty of fluids

Planning Meals for Elderly

Due to advance in age, the metabolic processes have slowed down. They are less active with low appetite and some may have lost their teeth. Ensure the meals are:

*

Rich in minerals, especially calcium and phosphorus.

* Rich in vitamins for protection.

* Served in small quantities.

* Easy to chew.

* Well seasoned.

* Have roughage to prevent constipation and cardiovascular diseases.

Planning Meals for Expectant and Lactating Mothers

An expectant mother is a woman who is pregnant, while a lactating mother is a woman who is breastfeeding. The nutritional needs of expectant and lactating mothers are the same. However, a lactating mother requires more fluids and larger quantities of food. Planning Meals for Invalids and Convalescents

An invalid is a person who is suffering from an illness. A convalescent is a person recovering from illness. When planning their meals, ensure:

* The meal has plenty of protective foods and body building foods.

* The food is soft and easy to digest.

* The meal is prepared, cooked and served in a hygienic manner.

* Food is served in small amounts at regular intervals.

* Food is served attractively. Planning Meals for Vegetarians

A vegetarian is a person who does not eat animal flesh or their products such as milk, eggs, ghee etc. There are two types of vegetarians, Lacto vegetarians and Strict vegetarians. Click on each for more details. Points to consider when planning meals for vegetarians:

* Mix different types of plant proteins to provide all the essential amino acids.

* Provide a variety of proteins to avoid monotony.

* Provide adequate amount of vegetables, fats and oils.

* Foods should be well seasoned. Packed Meals

These are meals that are prepared, cooked, served and are eaten away from

home. They can be used during picnics, while travelling, school visiting, tours and hospitals visits. Packing Materials and Equipment

Table setting

Table setting is the correct placement of table appointments required during meals. This can either be formal or informal. A formal table setting has more utensils and cutlery than the informal one in order to cater for the many courses served during a formal occasion. Styles of Meal Service

There are many styles of meal service. In this topic four styles are discussed:

* Blue plate
* Family service
* Buffet
* Tray service

Blue Plate Service

The food is served on individual plates and given to the diners who may eat from table or anywhere they choose.

Family service

In this service, the diners sit at a well set table and they serve themselves or are served from the serving dishes.

Buffet service

a) In this service, the buffet table is well laid out with stacks of plates, cutlery and assortment of food systematically arranged. b) The diners queue and serve themselves or are assisted by hosts/ waiters.

Tray service

A tray is used and is well set with appropriate crockery and cutlery and the food is set for one person. It is suitable for invalids.

Maternal Child Health Care

As you learnt in Form 1, this is a discipline that deals with child development from conception to childhood with special attention to the physical, emotional and social development of the child.

Safe Parenthood

One needs to be adequately prepared for the role of parenthood since it is an enormous responsibility.

Objective

By the end of the lesson, you should be able to explain the importance of safe parenthood. Importance of Safe Parenthood

Safe parenthood ensures a:

1. Trouble free full term pregnancy
2. Safe delivery
3. Mother's and baby's health are safe guarded
4. Pregnant mother is free from stress related complications

Preparation for Safe Parenthood

In this lesson we shall look at the various factors that need to be considered in preparation for safe parenthood. These include:

* Proper Nutrition
* Proper Social and Psychological Preparation
* Voluntary Counselling and Testing (VCT)
* Age of parent

Objective

By the end of the lesson you should be able to discuss the needs of a pregnant mother.

Proper Nutrition

Proper nutrition is important for both the mother and foetus. Lack of enough nutrients in the diet may lead to improper development of the foetus and endanger the life of the mother.

Proper Social and Psychological Preparation

Emotional and social support from the family members and society are important for a healthy pregnancy. The mother must be prepared emotionally in order to adjust to the changes that will take place in her body. Voluntary Counselling and Testing (VCT) It is important for the parents-to-be, to know their HIV status by
visiting a VCT clinic.

If they test positive to the virus:

1. They will be counselled

2. The mother is given medical care to prevent mother-to-child transmission. If negative, they are counselled and advised on how to mantain their negative status. Age of parent

The recommended age for parenthood is between 18-35 years.
*A girl below 18 years is not physically mature to carry the pregnancy and safely deliver the baby.
*A girl or boy below 18 years is not psychologically, socially and financially prepared for the responsibility of parenthood. On the other hand, an average mother-to-be may experience the following:
* Difficult in conception.
* Birth of deformed babies.

*

Child has a high chance of getting genetic diseases.

* Mother may experience difficulty during labour. Pregnancy

Pregnancy is the period between conception and the delivery of a baby. During this period mothers may suffer from some complications, these include:

Objective

By the end of the lesson you should be able to explain common problems in pregnancy.

Oedema

This is the swelling of the face and limbs due to retention of body fluids.

Varicose veins

These are veins that have become stretched, damaged and bulge on the surface of the skin.

Piles/haemorrhoids

These are enlarged blood vessels that protrude at the anal region. Stretch marks

These are stripe-like appearance on the skin, especially on the legs, buttocks, thighs and abdomen.

Backaches

The expectant mother may experience pain at the lower back as a result of pressure exerted by the growing foetus on the spine.

Anaemia

This occurs when there is lack of enough iron in the body due to iron deficiency in the diet.

Antenatal Care

Antenatal care is the care given to an expectant mother from the time of conception to the time she delivers. Antenatal care is also referred to **as pre-natal care**.

Objectives

By the end of the lesson you shpuld be able to:

i) Explain the impotance of antenatal care
ii) Explain the activities that take place in the antenatal clinic
iii) State the factors that affect normal foetal development. Importance of Antenatal Care

Antenatal care ensures: 1. The safety of the mother and the foetus. 2. Early detection of any pregnancy related problems so as to be managed
in good time. 3. Provides education on health and nutrition to the mother. 4. Reduction of maternal-child mortality. Activities at the Antenatal clinic

As soon as a mother suspects that she is pregnant, she should report to the antenatal clinic for confirmation. In the antenatal clinic, the following activities will be carried out:

* Checking family history
* Checking of the mother's blood pressure
* Urine analysis
* Weight of the mother
* Foetal heartbeat
* Blood test
* Scanning

Family History

It is important to find out more about the parents' family history in case of any hereditary disease/ condition.

Mother's Blood Pressure

It is important to monitor the mother's blood pressure especially during the third trimester so as to avoid related complications.

Click on the PLAY button to view video clip

Urine Analysis

Urine analysis is carried out to check:

* Presence of proteins
* Presence of sugar
* Some STIs, such as gonorrhea
* Confirmation of pregnancy

Weight of Mother

It is important to monitor the weight of the mother so as to prevent serious complications such as high blood pressure and pre-eclampsia, which is a life threatening condition for both mother and baby.

Foetal Heartbeat

The baby's heartbeat is monitored whenever the mother goes to the antenatal clinic.

Click on the PLAY button to view video clip

Blood test

The mother's blood is tested for:

* Determining the mother's blood group
* STI's diagnosis, such as syphilis

*

Haemoglobin levels

* H.I.V

Scanning

Ultrasound scans are done to confirm that the foetus is growing well, that it is the right size for the dates or to check on the dates if the mother is unsure about them. Scanning is also done to check on any possible abnormalities that the unborn baby may have, so as to deal with them as early as possible.

Factors Affecting Normal Foetal Development

The normal foetal development can be affected by:

* HIV and AIDS
* Alcohol abuse and smoking
* Drug misuse and abuse
* Poor nutrition
* Trauma/Stress

Click on each factor to view it. HIV and AIDS

This may cause infection to the baby. Alcohol Abuse and Smoking

This leads to underweight babies, mental retardation and miscarriages.

Drug misuse and Abuse

This may lead to poor development of the foetus and also miscarriages. Poor Nutrition

This may lead to poor physical and mental development of the foetus.

A pregnant woman eating chocolates from a box

Trauma/Stress

This may lead to miscarriages.

A stressed pregnant woman in an office

Postnatal Care

Postnatal care is the care given to the mother and baby for up to about five years after a baby is born. Both mother and child are given intense care in the first six weeks after delivery.

Mothers at a postnatal clinic

Objectives

By the end of the lesson, you should be able to: i) Define post natal care. ii) Explain the importance of post natal care. iii) Describe the activities that take place at the post natal clinic.

Importance of Postnatal Care

Postnatal care is given at home and in hospitals. Postnatal care safeguards the general health of the mother and the baby. The following are the activities that take place at the postnatal clinic:

* The mother's uterus is thoroughly examined to ensure that the uterus and other organs are back to normal.
* The breasts are examined to ensure that the mother is able to breastfeed properly and advice is given accordingly.
* The mother is advised on good nutrition, general hygiene and methods of family planning.
* The mother's health, emotional, psychological and social concerns are addressed at the clinic.
* Pregnancy related complications, if any, are addressed.
* The growth of the baby is monitored.
* The general health of the baby is assessed and treatment given if necessary.
* The baby is immunized against common childhood diseases. Child Immunization

Immunization is the introduction of a vaccine into the body to protect it against a particular disease or infection. It prepares the body to defend itself against specific diseases by stimulating the immune system to produce appropriate antibodies. Objectives

By the end of the lesson, you should be able to define the term immunization.

Importance of Immunization

It is important for children to be immunized so as to:

* Prevent harm caused by some diseases.
* Reduce child mortality.
* Prevent permanent injury or disfigurement.
* Save on money that could have been used on treatment. Objective

By the end of the lesson you should be able to explain the importance of immunization

Immunization Schedule

Immunization schedule is a programme of immunization for a country. Objective

By the end of the lesson you should be able to explain the immunization schedule.

Breast Feeding

Breastfeeding is the nourishment of a baby on milk through the breast.

Importance of Breastfeeding

Objective

By the end of the lesson you should be able to explain the importance of breastfeeding.

Problems Related to Breastfeeding

Many mothers are able to breastfeed successfully. However, some mothers may experience problems which may require help from health professionals, counselors and experienced breastfeeding mothers. The following are some of the problems related to breastfeeding:

* Breast engorgement
* Sore nipples
* Breast abscess
* Inability of the mother to breastfeed
* Mother's refusal to breastfeed
* Baby's refusal to breastfeed

*

Baby's inability to breastfeed

Objective

By the end of the lesson you should be able to state the problems related to breastfeeding.

Breast engorgement

This is the condition experienced by breastfeeding mothers when breasts become too full of milk as a result of infrequent breastfeeding.

Sore nipples

This condition is as a result of cracking of the nipple. This makes breastfeeding painfull. **Breast abscess**

This is a complication that occurs when a cracked nipple is neglected.

The mother needs to seek immediate medical attention. Inability of the mother to breastfeed

This may be caused by:

1. Inverted nipples
2. Severe malnutrition
3. Severe illness

Mother's refusal to breastfeed

This can be as a result of ignorance and misconception. Baby's refusal to breastfeed

This can be as a result of:

1. Introducing bottle feeding too early
2. Early weaning
3. Nipple confusion-a problem that arises when a breast fed baby is given a rubber tit. Baby's inability to breastfeed

This can be due to:

1. Cleft lip/ palate
2. Oral thrush
3. Illness

Feeding Equipment and Materials

These are items used during food preparation, cooking and feeding the baby. These equipment and materials include:

Objective

By the end of the lesson, you should be able to practice proper care of
feeding equipment. Points to Obseve when Caring for Baby's Feeding Equipment
1. Clean hands thoroughly with soap and clean water before handling the equipment
2. Clean the equipment immediately after use
3. Sterilize the equipment after cleaning
4. Avoid handling the equipment when suffering from infectious diseases.
5. Do not share baby's equipment with other members of the family
6. Avoid touching the surface of the equipment which goes into the baby's mouth
2. Avoid handling the equipment when suffering from infectious diseases. Cleaning feeding equipment

Feeding equipment should be washed thoroughly, sterilized and stored
appropriately. Clean the feeding bottle using the following procedure: Sterilizing Feeding Equipment in Sterilizing Solution
Sterilizing Feeding Equipment by Boiling
Sterilizing Feeding Equipment in a Sterilizing Kit
Flour Mixtures and Raising Agents
Flour mixtures are made by using flour as the main ingredient. Other
ingredients may be added with liquids determining the consistency as
either stiff or dropping. Types and Functions of Raising Agents

A raising agent is air or substance which is used to make flour mixtures
light. The agents include air, steam,and carbon IV oxide. Raising agents
all work in the same way by raising the flour mixtures. When the agents
are added into moist flour mixtures and subjected to heat, the agents
become lighter and rise, stretching the gluten strands in the flour. On
further heating, the flour mixture sets in an expanded form.

cake rising in the oven as it bakes

Objective

By the end of the lesson, you should be able to explain how raising agents work.

Methods of Introducing Raising Agents into Flour Mixtures

Different raising agents are introduced into flour mixtures using different methods. These are:

1. Mechanical
2. Physical
3. Biological
4. Chemical

Objective

By the end of the lesson, you should be able to explain how raising agents work.

Quizzes

Mechanical

Mechanical Methods of introducing raising agents into flour mixtures include:

1. Sieving
2. Rubbing-in
3. Creaming
4. Beating
5. Whisking

Sieving

Air as a raising agent is introduced into flour mixtures mechanically by sieving it.

Click on the PLAY button to view video clip

Rubbing in

Fat is rubbed into the sieved flour using the finger tips. It should be raised above the bowl to incorporate air. Creaming

Fat and sugar are creamed together in a bowl using a wooden spoon. A damp cloth is placed under the bowl so as to keep it steady on the work surface.

Beating

Air is introduced into flour mixtures by beating using a wooden spoon. Whisking
This is introducing air into a flour mixture by whipping eggs using a rotary whisk, balloon whisk or an electric mixer. Physical

Steam raises mixtures by a physical action. Steam is produced when water in a mixture reaches boiling point. As steam forces its way up through the mixture, the gluten strands stretch and set, holding the mixture in that raised form. For steam to be effective as a raising agent, high temperature and a high proportion of liquid are necessary. Biological

In this method, yeast cells are used to produce carbon IV oxide. When yeast cells are exposed to sugar, warmth and moisture, fermentation occurs. As a result, carbon IV oxide and alcohol is produced. During cooking, the carbon IV oxide raises the flour mixture while the alcohol escapes.

Loaf of bread made using yeast

NOTE!

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