**WEEK ONE**

**DATE:**

**CLASS: JSS 2**

**AGE:**

**DURATION: 45 MINUTES**

**SUBJECT: PVS (Personal and Vocational Studies)**

**TOPIC: FISH FARMING**

**PERIODS:**

**INSTRUCTIONAL MATERIALS:**

**- Charts showing**

**- Textbooks.**

**BEHAVIOURAL OBJECTIVES:**

**By the end of the lesson, students will be able to:**

**1. Explain the**

**2. Identify .**

**3. Discuss the**

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**Students are expected to have a basic understanding of**

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**TOPIC: FISH FARMING**

**DEFINITION OF FISH FARMING:** Fish farming (culture) is the acts of rearing selected species of fish under scientifically controlled conditions in enclosed bodies of water such as ponds, stream, rivers, etc., where they feed, grow, breed and are harvested for consumption or for sale.

**Terms Associated with Fish Farming**

**Fingerlings-** The newly hatched fish (es).

**Fisheries-** This is the study of fish and fishes.

**Fish** - This refers to a particular species, regardless of the number or quantity.

**Fishes** - This refers to the different species of fish.

**Pond** - This is artificial body water where fish (es) can be reared.

**Gears** - These are equipment used in harvesting fish.

**Fry** - This refers to young fish (es).

**School** - This is a group of fish (es).

**Hatchery**- This refers to a unit where fish eggs are incubated and hatched artificially into fish.

**Aquarium-** This is an artificial fish pond kept for aesthetic or entertainment purposes at home.

**Aquaculture**- This refers to the study and production of fish, shrimps and other acquatic food organisms.

**CLASSIFICATION OF FISHES**

Fishes can be classified into two main groups:

**(a) Classification based on fish habitat:** under this classification, two groups exists:

**(i) Fresh water fishes:** These fishes live in fresh water, i.e., the water does not contain salts. Examples of such fresh water include pond, streams, rivers and lakes. Examples of fishes in this group include tilapia, carp, perch, trout, mudfish etc.

**(ii) Salt water fish:** These fishes live in water containing salts such as lagoons, seas and oceans. Examples of salt water fishes include salmons, mackerel, shark, tilapia, rays, eels, etc.

**(b) Classification based on body structure:** under this classification, two groups also exist:

**(i) Bony fishes:** These fishes possess bony skeletons. Examples include tilapia, mudfish, carps, trout, catfish, salmon, perch, and herring. Majority of these fishes are found in fresh water.

**(ii) Cartilaginous fishes:** These fishes possess soft bones composed of cartilages. Majority of these fishes are found in salt water and examples include shark, dolphin, dogfish, rays.

**Classification based on nature of body covering:**

1. Scaly fish: these are fishes that have scales on their body e.g tilapia ,croacker e.t.c
2. Non- scaly fish: these are fishes that have no scales on their body. E.g mackerels, catfish, mudfish e.t.c

**CONDITIONS OR FACTORS NECESSARY FOR SITING A FISH POND**

The factors or conditions necessary for siting a fish pond include:

(1) Adequate water supply.

(2) Soil in the area.

(3) Vegetation of the area.

(4) Topography of the area.

(5) Availability of fast growing fishes.

(6) Availability of supplementary feedstuff.

**Importance of Fish**

Fish products and other aquatic food organisms are useful to man in various ways. Some of their

Importance is as followings:

i. **Food:** Fish is useful as food for man, it is eaten by man as part of his diet. Fish is a good source of protein, vitamins and minerals necessary to keep the body healthy and strong.

ii. **Source of income:** Fishes serves as a source of income for fish farmers and traders. They are sold for money which provides a major source of income.

iii **Feed:** Fish and its products such as bones can be used in the manufacture of animal (livestock) feed especially in poultry feed. The shell fishes such as from oysters and squids supply calcium in poultry feeds. Dead fish and its parts are grinded into fish meal as source of animal protein.

iv. **Medicinal purpose:** Fish products such as the cod-liver have medicinal properties. It supplies vitamins especially for babies. In addition, some species of tilapia and minnows have been used to control malaria in the tropics. They are used for biological control (prey) of mosquitoes.

v. **Recreation:** Fishing as a form of recreation or sports has played an important role in the society and in some cultures for instance, in the Argungu festival in northern Nigeria.

vi. **Entertainment:** Fish ponds provide entertainment to many people. People derive pleasure from watching fishes in pond, aquarium and documentaries.

vii. **Scientific study (education):** Fishes are used for scientific study, experiment and research to widen and increase knowledge.

viii. **Raw materials:** Fish and its products provide raw materials for agro based industries for instance, in canneries such as geisha, sardine and tuna fish industries. In addition, fish oil is a basic raw material for industries that make paints, enamels, candles, soaps and vanishes.

ix. **Leath**er**:** The skin of fishes especially sharks are dried and processed into a special type of leather known as shagreen. Skin of other aquatic organisms such as crocodiles and turtles equally make good leather for handbags, belts, shoes and wallets.

x. **Ornaments:** Some parts of fish such as shells as in oysters, as well as scales and teeth especially of sharks have been found useful in the manufacture of jewels, necklaces and other decorative materials.

xi. **Buildings:** shell fishes especially oysters and periwinkles have been exceptionally useful in building. Their shells can be mixed with sand and cement to make the walls of buildings stronger and more attractive.

xii. **Manure:** Fish by products or the discarded parts of fish and those fishes that have gone bad can be heaped to decompose and used as manure.

**WEEK TWO**

**DATE:**

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**TOPIC: FOREST AND FOREST USES**

**PERIODS:**

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**- Charts showing**

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**FOREST AND FOREST USES**

There are two major types of vegetation in Nigeria. These are the forest and the savannah.

**1. The Forest Zones**

a. Mangrove and fresh water swamp forests

b. Rain forest:

**2. The savanna Zones**

(a) Derived savanna:

(b) Southern Guinea Savanna:

(c) Northern Guinea Savanna

(d) Sudan Savanna

(e) Sahel Savanna

**FORESTRY**

**Description of forest**

A forest is an ecological habitat where trees, animals and many other plant co-exist. A forest is made up of groups of trees and other living things. Shrubs, herbs, lower plants and microscopic organisms grow under the trees. A forest also serve as a home for many kinds of animals such as antelope, grass cutter, elephant, hare, monkeys, etc. The study and management of forests and forest resource is known as forestry. Simply put forestry is the study and care of all the living organisms which live in the forest.

**Forest Resources (Products)**

The two major components of forests are trees and wild animals (wild life).

**Forest trees:** Tree species are widely spread in the forest. Forest reserves in Southern Nigeria contain most of the timber species of economic importance such as Teak, Neem (Dogoyaro). The table below shows a list of some timber species of economic value in Nigeria.

**Name of Tree Common Name State / Location**

Khaya (grandifoliola, Mahohany Cross River, Ondo,

Ivorensis, Anambra

Senegalensis) Delta, Edo, Ebonyi, Kwara, Plateau, Ogun,Oyo, Nassarrawa and Sokoto

Tenninalia Superba Afara Anambra, Delta, Edo, Imo, Cross River, Ogun, Oyo, Ondo and Ekiti.

Mansonia Altissima Mansonia Cross River, Delta, Edo, Ogun, Ondo, Oyo.

Chlorophora excels Iroko Edo, Kaduna, Anambra, Delta, Ogun, Ondo Oyo.

Tetminalia ivorensis Idigbo Cross River,Delta, Edo, Imo, Ogun Oyo

**Forest Animals:** These are usually referred to as wild life. In Nigeria, forest animals are

called bush meat. They include: Rabbits and hares, Rodents (grass cutter, squirrels, porcupines and giant rat); Pangoling; monkey and apes (baboon, gorillas and chimpanzees); ungulates (hoofed animals such as zebras, hippopotamus, giraffe, buffalo, rhino, and bush pigs); carnivores (mongoose, hyenas, lions and leopards); Elephants; Reptiles (snake, lizards, crocodiles and tortoise; and Birds (eagles, buzzard, cattle egret and guinea fowl etc)

**FOREST RESOURCES AND USES**

**Uses of Forest Resources/Products**

Forest resources play an important role in the economy of the country. The value of forest can be described under the following headings: Productive, Protective, aesthetic and economic uses.

**Productive Uses**

**(i) Timber:** The wood of trees such as Iroko, Mahogany, obeche and Teak are raw materials used extensively in the construction and furniture industries to produce canoes, coffins, carvings. Forest trees such as gmelina are also processed into pulp which is an industrial raw material for making paper and newsprint. Fuel wood and charcoal are also derived from forest trees (timber)

**(ii) Food:** Many forest trees provide edible fruits, nuts, vegetables and mushrooms which nourish the body. Forest animals (wild life) make a major contribution to the protein requirement of Nigerians.

**(iii) Medicines:** Some forest trees are medicinal. Their roots, stem, leaves and bark can be used to cure a wide range of sicknesses. Such trees include Neem, Eucalyptus, Cinchona etc.

**(**iv) **Beddings:** Silk from silk- cotton tree is used in making pillows and mattresses.

**(v) Domestic and Industrial raw material:** Exudates of some forest trees provide the raw materials for rope, fibres, dyes, resins, gum, rubber, tannins which are used for both domestic and industrial purposes.

**(vi) Leather:** Animal skin is used for leather works such as bags, drum and others.

**(vii) Fuel:** Charcoal and dead wood are used for fuel (making fire) or heating.

**HUMAN ACTIVITIES THAT AFFECT THE FOREST**

**(a) Deforestation:** This is the continuous removal of forest trees (either by bush burning or indiscriminating felling) without replacing them. Uncontrolled deforestation should never be allowed because of its adverse effects on some of these effects include:

(i) It destroys the micro-climate and warms up the forest environment.

(ii) It depletes the supply of forest raw materials e.g timber to industries.

(iii) It reduces the forest wild life population.

(iv) It may lead to desert encroachment as sand particles are more likely to drop in areas without trees.

(v) It encourages soil erosion and loss of organic matter resulting in loss of forest soil fertility.

**(b) Depletion of wild life:** Indiscriminate bush burning and farming activities reduces the game (wildlife) population in the forests.

Some important species are being exterminated gradually. This is because thick forest which provide an enabling environment or habitat for the animals have become easy prey to hunters and some others have fled to new environments

**(c) Poaching:** This refers to illegal hunting of animals in the forest. Poaching reduces the population of forest wildlife. It also results in the extinction of some important species of forest animals.

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EFFECT OF FOREST ON ENVIRONMENT

**WEEK TWO**

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**MEANING OF FEEDING HABITS**

Feeding or eating habits are your everyday patterns of eating. It involves the tendency to reach out for the same foods whenever you are hungry. Some feeding habits are developed when you are very young. Other habits are also influenced by friends, neighbours and lifestyle.

It is very important to understand your eating habits as a first step in managing them.

**HEALTH FEEDING HABITS**

Healthy feeding habits refers to the tendency or habit or practice of choose adequate and proper nutritious food in a conscious way.

**Healthy feeding practices are**

1. Eating adequate diet: Your food should contain all the nutrients in adequate amounts for growth, maintenance and nourishment of the body.
2. Using foods in season; exploit the seasonality of foods and eat as much as is good when the particular food is in season e.g fruits like mango, cashew, vegetable e.t.c.
3. Reducing the amount of sugar, sweetened drinks and salt in your diet.
4. Going for more health snacks  such as fruits and vegetable than for fizzy drinks and confectionaries.
5. Choosing diet that is low in cholesterol and saturated fat.
6. Choosing diet that have plenty of whole grain or cereals, vegetables and fruits.
7. Eating a variety of food selected from all the food groups.
8. Taking adequate amount of water daily. Never use fizzy drink as a substitute for water or food.

**EVALUATION**

**1.**What is food?

2. How can food be grouped?

3. Name examples of  food groups and their sources.

4. Define healthy feeding habits?

**Subject:**

Home Economics

**MEANING OF ENTERTAINMENT**

Entertainment in a home means receiving people in the home and giving them food, drinks, etc. It also means making people feel happy. It involves organizing formal or informal parties. ***A female who entertains is a hostess, while a male is a host. The person who is entertained is the guest.***

**IMPORTANCE OF ENTERTAINMENT**

1. Entertain is a way of building good relationships among people.
2. It gives you practice in being a hostess or host.
3. It is a way of showing and sharing love.
4. It makes people (hostess, host and guest) happy.
5. It helps people learn how to treat others, for instance, respect of people’s feelings.
6. It can help people develop interests and acquire skills needed in hospitality industry, such as hotels and restaurants.
7. It gives the host/ hostess opportunity to prepare different types of dishes (meals) and snacks.
8. It helps people learn how to serve others.
9. It provides for relaxation which is necessary for good health.

**PREPARATION PROCEDURE FOR ENTERTAINMENT**

There are many ways of preparing for entertainment. These are the things which the host/ hostess has to do:

1. ***Preparation and sending out invitation letters or cards.***
2. ***Preparation of the house/hall/venue.***
3. ***Collection and arrangement of equipment and materials.***
4. ***Preparation of refreshment/ food. (The amount of preparation needed depends on the type of party and number of people invited).***

**PREPARATION AND SENDING OUT IVITATION LETTERS OR CARDS**

Preparation and sending out of invitation or cards are very important. This is because the guests are very important in any party. Without the guests there will be no entertainment. The invitation letters, cards or telephone calls must be prepared and sent early enough.

Invitations can be issued in person, on the telephone or by written cards. FORMAL parties are often by cards, while INFORMAL ones may be verbal or telephone. A complete invitation letter regardless of its form should include:

1. ***The name of the host/ hostess.The type of event.The date.Time and place of the party.The name of the guest.***

**PREPARATION OF THE HOUSE/ HALL/ VENUE**

The venue or place for the party can be the family house or a hall outside the home.

**GUIDELINES FOR PREPARATION OF THE VENUE**

1. Ensure that the space is enough for the number of guests.
2. Provide enough seats and tables for the guests.
3. Clean the room or hall thoroughly. Remove all cobwebs, dust and dirt on walls, windows, doors, floor and other surfaces.
4. Clean the chair thoroughly. No guests will like his/ her clothes to be soiled by sitting on dirty chairs.
5. Arrange the chair and tables properly. Make sure that there are enough waling/ movement spaces for the guest and for services. Provides spaces between tables.
6. Decorate the table with good table- clothes.
7. Hang some decorative pieces on the walls. This should be done properly.
8. The colours used in decoration should be in harmony.
9. Decorate with properly arrange flowers. Large flower arrangements should be use in small rooms.
10. The room or hall should be properly ventilated, that is, airy.
11. There should be a good light in the room or hall.

**COLLECTION AND ARRANGEMENT OF EQUIPMENT AND MATERIALS**

The equipment and materials which are often used in parties include musical equipment such as stereo and accessories, plates, cutlery, cups, serviettes, straws for drinks, gifts/ souvenir, drinks, food items, etc. All theses must be carefully collected and arranged before the party.

**GUIDELINES FOR COLLECTION AND ARRANGEMENT OF**

**EQUIPMENT     AND MATERIALS**

1. Determine the number of guests expected to attend the party.
2. Decide on the types of food and drinks to serve.
3. Draw up a shopping list for food, drinks, gifts/ souvenir, decoration materials, etc. Consider the money at hand. Budget within the limit of your money.
4. Plan for the provision of plates, cutlery, cups, etc. Where possible disposables can be used.
5. Plan for careful serving of drinks, food and take- away gifts.
6. Plan for [music](https://stoplearn.com/category/music/) equipment and other things.
7. Plan for clearing up and washing of plates, cutlery, etc.
8. Share responsibilities among those who are going to help with the party.
9. Determine the positions for the placement of equipment, food, and other items in the room or hall.
10. Start all preparations, cooking, arrangement of hall, etc, well ahead of time.
11. The host/ hostess must be ready to receive the guests before they arrive.

**REFRESHMENT/ FOOD FOR ENTERTAINMENT**

The type of refreshment/ food and method of serving will depend on:

1. The type of part, for instance tea party, cocktail, formal or informal, buffet parties.
2. The type of food being served.
3. The duration of the party, that is, the length of time for the party.
4. The space available in the room or hall.
5. The number of people eating.
6. The number of people available for serving and clearing up.

**COMMON STYLES OF SERVING FOOD.**

1. **TRAY SERVICE**: Here food and drinks are served in individual trays.
2. **FAMILY- STYLE SERVICE**: Dinner plates are arranged at each person’s place. The foods are in serving dishes on the table and are passed around from person to person to help themselves.
3. **PLATE SERVICE:** The food is placed in each person’s place in the kitchen or from one corner of the hall. The food could be in food warmers. The filled plates are brought to the table or handed over to guest by hand.
4. **BUFFET SERVICE:** Plates, napkins, serviette, food, and drinks are arranged on the buffet table and guests help themselves to the food. This is an easy way of entertaining a large number of guests.

***Evaluation:***

1. ***Explain the meaning of entertainment, host/hostess and a guest.***
2. ***State five importance of entertainment.***
3. ***Enumerate the preparation procedure for entertainment.***
4. ***List and explain the different types of entertainment styles.***