**SCHEME OF WORK FOR J.S.S 3 2ND TERM**

1. Scientific study of food.

2. Budgeting – definition, terms, family budget.

3. Feeding the family-meal planning.

4&5. Nutritional needs of different people in the family infants.

6. Buying and storage

7&8. Food preparation – kitchen equipment and intensity.

9&10.Food preparation continues

11. revision and examination

**WEEK ONE**

**SCIENTIFIC STUDY OF FOOD**

**DEFINITION OF FOOD NUTRIENTS**

Food nutrients are the chemical substances in the food we eat. The various food nutrients differ from each other in their physical properties and chemical properties.

**TYPES OF FOOD NUTRIENTS AND THEIR CHARACTERISTICS**

1. PROTEINS: Proteins are body builders. They are important for building and repairing of body tissues. Sources include; meat, fish, eggs, poultry, milk, beans e.t.c.

CHARACTERISTICS OF PROTEIN

1. Proteins are made up of carbon, hydrogen and nitrogen. There are elements.

2. The elements arranged themselves in different combinations to from amino acids.

3. The amino acids then form the proteins.

4. The final products of protein digestion are the amino acids

5. Proteins are digested by enzymes called protease.

6. Most proteins are insoluble in water.

2. CARBOHYDRATES: Carbohydrates are energy foods. They include sugars, starches and cellulose. Food sources included yam, rice, maize, cassava e.t.c.

CHARCTERISTICS OF CARBOHYDRATES

1. The elements that make up carbohydrates are carbon, hydrogen and oxygen.

2. These elements combine in different ways to form.

i. Simple sugars e.g. glucose, fructose e.t.c.

ii. Complex sugars e.g. lactose

iii. Starches e.g. yam, cassava e.t.c.

iv. Cellulose, this is found in some vegetables

3. All sugars are sweet but they vary in sweetness.

3. FAT AND OILS: Fats and oils are energy gives, like the carbohydrates, sources of fats and oils include palm oils, groundnut oil, fatty meat, egg yoke, butter, margarines’ e.t.c.

CHARACTERISTICS OF FAT AND OILS

1. They contain high proportions of carbon and hydrogen but very little oxygen.

2. They are bad conductors of heat.

3. Fats and oils are insoluble in water.

4. Fats are solid at room temperature, oils are liquid.

4. VITAMINS:

Vitamins A&D

1. These are fat soluble vitamins

2. They are not dissolved in water

3. They are not destroyed by ordinary cooking

4. They are destroyed when the fat that contains them goes spoilt.

Vitamin B & C

1. It is water – soluble i.e it dissolves in water

2. Food sources should be cooked in small quantity of water using quick cooking method.

3. Rich vitamin C food such as oranges are often eaten raw.

4. Fast method of cooking should be used, over – cooking can lead to loss of vitamin.

5. MINERIALS

1. Dry heat has little effect upon minerals in food

2. Moist heat may result in the loss of some of the soluble minerals such as sodium, potassium and magnesium salts.

**WEEK TWO**

**TOPIC: BUDGETING**

**SUB-TOPIC: HOUSEHOLD BUDGET**

Budgeting is the process of preparing a budget. Household budget is a plan for future expenditures of a given household. Good budgeting leads to wise management or use of a family income. Poor budgeting leads to wasteful expenditure of income.

**BUDGETING TERMS**

* **Family Income:** The incomes of a family include the money and other economic resources available to the family for meeting their needs.
* **Money Income:** is the total amount of money which the family has at a given period. It is the purchasing or buying power of a family at a given period.
* **Gross Income:** is the total amount of money from a person’s income.
* **Net Income:** is the amount of money that remains after deductions, such as tax, water rate and levies.
* **Budget:** is the plan of how to spend the family income. The budget is normally prepared based on the net income.
* **Expenditure:** is the amount of money spent on the goods and services which the family needs.

**SOURCES OF FAMILY INCOME**

There are sources from which families get their income. They include: salaries, wages, gifts, assets or investment that yield interests; such as rents, dividends on shares e.t.c.

**IMPORTANCE OF FAMILY BUDGET**

* It helps the family to make wise decision about expenditure
* It helps the family to spend money on what they really need
* It prevents wasteful spending of family money
* It helps the family to see how they spend their money
* It helps to prevent impulsive buying
* It helps to train children on the use of money.

**FACTORS TO CONSIDER IN PREPARING A BUDGET**

* The family income
* Family needs
* Family size
* Family value
* The season of the year
* Locality
* Inflation.

**PROCEDURES IN PREPRING A FAMILY BUDGET**

* List all the goods and services needed by the family throughout the proposed budget period.
* Place them in order of priority or importance to the family
* Make an estimate of the cost of each need
* Estimate the total expected income for the planned period
* Bring expected income and expenditure into balance. Expenditure should not be more than income.
* Review the budget to ensure that it is likely to work.

**EXAMPLE OF A BUDGET FOR THE FAMILY**

The following is an example of a budget for an imaginary family of three persons that has monthly income of Ten Thousand naira. (# 10,000.00)

|  |  |  |
| --- | --- | --- |
| **FAMILY NEEDS** | **% OF INCOME BUDGETED** | **AMOUNT # K** |
| Food | 30% | 3000 00 |
| Housing (rent and maintenance) | 23% | 2300 00 |
| Clothing | 10% | 1000 00 |
| Health | 10% | 1000 00 |
| Transportation | 6% | 600 00 |
| Education | 13% | 1300 00 |
| Entertainment and recreation | 2% | 200 00 |
| Personal allowances | 3% | 300 00 |
| Savings and insurance | 3% | 300 00 |
| **Total** | **100%** | **10,000 00** |

***Assignment: prepare a family budget for a family of six that earns #30,000.00 every month.***

**WEEK THREE**

**TOPIC: FEEDING THE FAMILY**

**SUB TOPIC: MENU PLANNING**

Meal planning involves choosing a menu or a list of foods that will be included in a meal.

**FACTORS THAT INFLUENCE MEAL PLANNING**

* Age of family members
* Occupation or activities of family members
* Health condition of family members
* Size of the family
* Likes and dislikes of the family members
* Season of the year
* Money available
* Equipment or facilities available
* Time available
* Locality or place where family resides

**GUIDELINES FOR MEAL PLANNING**

* The meal must contain all the necessary food nutrients. Each of the basic food groups must be represented
* When possible, choose foods that contain a variety of nutrients
* Provide for the nutritional needs of all family members in the meal plan
* Avoid monotony by varying foods
* Buy the best foods your money can afford
* Plan meals several days ahead of time so as to save money and time
* Make use of foods in season and buy good quality foods

**PROCEDURES FOR MEAL PLANNING**

* Plan all the day’s menu (breakfast, lunch and supper) at the same time, at least 24 hours ahead of time
* Select the main course or dish. The main dish is also called ENTREE
* Make breakfast light but substantial
* Include the following in a breakfast menu
* Appetizer such as fruit or fruit juice
* Protein such as egg, fish or any source of protein
* Carbohydrates e. g. cereal dish as corn flakes, quaker oat, boiled yam or potatoes etc.
* Plan lunch and supper as the main meals of the day
* Make dishes for supper lighter than those for lunch, since people normally go to sleep after supper
* Include the following in a lunch and supper menus:

**Menus**:

* **Appetizer**: such as any drinking soup, if desired e. g. pepper soup
* **Main course/ dish**: e. g. meat/ fish, melon and pounded yam/ gari/ semovita/ foofoo
* **Desert**: e. g. pawpaw rings

***Assignment: explain the nutritional needs of a lactating mother***

**WEEK FOUR AND FIVE**

**TOPIC: NUTRITIONAL NEEDS OF DIFFERENT PEOPLE IN THE FAMILY.**

**CONTENT**

**TOPIC: NUTRITIONAL NEEDS OF DIFFERENT PEPLE IN THE FAMILY.**

* **YOUNG CHILDREN**: (Infants 0 - 1 year and toddlers 1 2 years)

Guidelines for providing children’s meal

* The food must be rich in protein for body building, energy foods for their activities, minerals and vitamins for vitality.
* Their food should be rich in milk, meat, fish, eggs, legumes
* Meal times should be regular.
* Their food must be cooked by the most easily digested methods
* An excessive consumption of sweets and candies that may lead to tooth decay should be avoided.
* **ADOLESCENCE:** This is a period of rapid growth. They therefore need proper feeding. Their food should be rich in protein, carbohydrates, minerals and vitamins.

* **ADOLESCENT GIRLS**: they require increased intake of iron. This is to make up for that which they lose monthly during menstruation. Insufficient supply of iron in the girls diet can result in ***anaemia***

* **ADULTS:** members of the group have reached maturity and stopped growing. They therefore require food for energy and maintenance rather than for growth. The following are special groups of adults
* The Manual worker: they do strenuous jobs such as farming, grass or wood cutting, mining e.t.c. this jobs require expenditure of excess energy. Therefore, they require increased intake of energy foods.
* Sedentary worker: Sedentary work is not strenuous. It involves sitting down. E.g. writing, working in office, selling goods in a shop e.tc. They do not require much energy foods in their diet.

* **ELDERLY PEOPLE OR AGED:** members of group are often characterised by reduced physical activity. They therefore need less energy. Their needs for proteins, vitamins remain unchanged.
* **INVALIDS:** An invalid is a person who is sick while a ***Convalescent*** is one who is no longer sick but is in the process of gradual recovery after illness. Doctor’s instruction must be followed while serving them. Their meals must be balanced, served at regular times every day, avoid strong spices and meals must be cooked by the most easily digested methods.

* **VEGETARIANS:** A strict vegetarian will not eat any animal foods e.g. meat, fish, egg and their products while a Lacto-vegetarian will not eat the flesh of animals and fish. However, they drink milk and eat butter and cheese. In both cases, meals should combine numerous vegetable, proteinous food and soya beans.

***Assignment: mention five ways of storing food.***

**WEEK SIX**

**TOPIC: BUYING, PRESERVATION AND STORAGE OF FOOD**

**CONTENT**

**SUB-TOPIC: WISE BUYING PRACTICES**

* Make a good shopping list
* Keep to the shopping list when buying
* Ensure that there are adequate storage facilities for the foodstuff to be purchased.
* Buy foods that are in season
* Judge the quality of food before buying
* Judge values of food before buying
* Make bulk purchases whenever possible
* Compare values and prices in different stores

***Bulk purchasing/buying***

***This is the process of buying foodstuffs in large quantities.***

**ADVANTAGES**

* It is economical and saves money
* It saves time and energy
* It enables the homemaker to buy food in season.
* It is very useful for food management in large families
* It ensures that food is always in the house.

**DISADVANTAGES**

* It can take much of the family income and prevent purchase of other needed commodities.
* One kind of food purchased in bulk is monotonous to the family diet.
* Lack of proper storage and management of food can lead to wastage.
* Poor quality foodstuffs purchased in bulk will spoil in storage.

**FOOD PRESERVATION AND STORAGE**

Food preservation is the caring for or treating food in such a way that it will be kept in good condition for a long period of time.

**METHODS OF PRESERVING FOOD**

* Solar or sun drying
* Smoking
* Freezing
* Canning.

**FOOD STORAGE**

Food storage involves keeping preserved or purchased food in safe condition and suitable facility for use.

**FOOD STORAGE FACILITIES**

* Plastic food container
* Food store
* Food storage cupboards, cabinets and shelves
* Refrigerators and freezers.

**IMPORTANCE OF PROPER STORAGE OF FOOD**

* It prevents food from spoilage
* It prevents loss of nutrients
* It helps the homemaker to save money
* It saves time and energy of going to the market always.

***Assignment: state five kitchen equipment and five kitchen utensils.***

**WEEK SEVEN & EIGHT**

**TOPIC: FOOD PREPARATION**

**SUB-TOPIC: KITCHEN UTENSILS AND EQUIPMENT**

**CONTENT**

**KITCHEN UTENSILS AND EQUIPMENT**

Kitchen equipment and utensils are very important for food storage, preparation and cooking. Small kitchen tools such as knives and forks are called ***utensils*** while the large ones such as cookers and deep freezer are known as ***equipment.***

**POINTS TO CONSIDER WHEN CHOOSING KITCHEN EQUIPMENT AND UTENSILS**

* The specific use of the equipment
* The money available for the purchase of the item
* The durability of the equipment
* The space available in the home for storage of the home
* The needs of the family
* It should be able to save labour, times and money
* It should be easy to use
* It should be easy to care for
* The size of the family

**TYPES OF KITCHEN UTENSILS**

* **Measuring utensils:** these are used to measure ingredients for food preparation. They include:
* Dry measuring cups
* Liquid measuring cups
* Measuring spoons.
* **Mixing equipment and utensils:** used to blend and mix ingredient e.g mixing bowls, mixing spoons, whisks, hard grinder
* **Cutting and chopping utensils:** used for cutting and chopping food into smaller pieces, they include knives, cutting/chopping boards, peelers, kitchen shears, and graters.
* Other kitchen utensils include colanders, strainers, spatula, turner, tongs, cooking forks, cooking spoons, cooking pots, frying pans, sauce pans e.t.c.

**TYPES OF KITCHEN EQUIPMENT/APPLIANCES**

The kitchen appliances are those pieces of equipment powered by either gas or electricity. There are small and large kitchen appliances.

* **Small kitchen appliances:** these can be moved easily from one place to another e.g. toaster, hand-held mixer, blender, food processor, electric frying pan e.t.c.
* **Large kitchen appliances:** these are major kitchen equipment. they are mostly fixed and once installed, they are not usually move from one place to another. They include microwave ovens, deep freezer, gas cooker, refrigerator e.tc.

**GENERAL CARE OF KITCHEN EQUIPMENT AND UTENSILS**

* Each piece of kitchen equipment and utensils has to be used correctly to obtain the best results
* Follow the manufacturer’s manual for the use and care of each equipment
* Preserve the manual as long as the equipment is in use
* Repair appliances and utensils promptly.

***Assignment: state five guidelines for the use of refrigerator.***

**WEEK 9 & 10**

**TOPIC: FOOD PREPARATION (CONTD.)**

**SUB-TOPIC: Reasons and methods of cooking food**

**FOOD PREPARATION TERMS**

* Stir
* Blend, mix, combine
* Beat
* Cream
* Grate
* Slice
* Coat
* Garnish
* Grease
* Seasoning
* Strain
* Drain.

***Reasons for cooking food***

* It makes food easier to eat
* It makes food more appetizing and pleasant
* It makes food easier to digest
* It makes food safe to eat
* It improves the appearance of the food
* It improves the taste of the food.

METHODS OF COOKING FOOD

* Boiling
* Stewing
* Steaming
* Frying
* Roasting
* Baking
* Grilling.

**GUIDELINES FOR CHOOSING A COOKING METHOD**

* Type of food being cooked
* Loss of nutrients
* Age and health of persons to eat the foods
* Facilities available for cooking
* Time available.

**Preparation of simple meal**

Egg custard

Ingredients:

¼ litre of milk

1 egg

1 tablespoon of sugar

Vanilla essence if desire.

Method

* Put the sugar into a mixing bowl
* Break the egg into the bowl
* Add milk and vanilla essence slowly and whisk
* Pour into a greased Pyrex dish or any other container suitable for steaming.
* Place a steamer
* Steam for about 30 minutes or until the custard is set
* Serve hot.