

FOOD AND NUTRITION SS1

THIRD TERM SCHEME OF WORK

1. Review of last term work/resumption exercise
2. Misappropriate of family food budget
3. Food study - main food such as cereal, grains, types and nutritive value of cereal grains, types and nutritive value of cereal grains
4. processing, uses and choice of cereal grains
5. Cooking methods of grains
6. High and low extraction rate flour usefulness of low extraction rate flour
7. Mid term test/ break
8. Legumes - types, importance, nutritive value and cooking method of legume grains
9. Fruits and vegetables - types, nutritive value, preparation and serving of fruits, Differentiate between fruits and vegetables : factors affecting the choice of fruits
10. Vegetables: Types, uses, nutritive value and cooking method of vegetables, factors affecting the choice of vegetables
11. Revision
12. Examination
13. Closure

BUDGETTING

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

1. Define bud getting

2. Mention any two examples of primary and secondary needs

3. List any three factors be considered when bud getting

BUDGETTING

DEFINITION : Bud getting is the act of planning how the net income will be spent in such a way that the individual concern will not run into financial embrassment before the net income. It is a process whereby all the expenses to be made are listed.

b. Budgetting is simply balancing your expenses with your income

C. It is also a process whereby all the expenses to be made are listed and cost

TYPES OF INCOME

a. Gross income : Is the sum total of the money from various sources without any deduction.

b. Net income : Is the actual amount received after all the compulsory deductions such as tax, levies etc have been made. The net income is always smaller than the gross income. It is the net income that is available for spending.

IMPORTANT OF BUDGETING

1. It makes bud getting easier when running a home

2. It enables the individual to form the habit of keeping account accurately

3. It encourages selective buying and minimizes the possibility of squandering money

4. It ensures that you will always have enough money for the things you need and the things that are important to you

5. It will also keep you out of debt

FAMILY NEEDS

Every family needs certain things such as food, Shelter, clothes, education and health services etc which are considered as the basic needs.

TYPES OF FAMILY NEEDS

1. Primary needs : They are those needs which cannot be avoided in the family eg food. House rent. School fees etc
2. Secondary needs: They are those expenses which the family can do without eg buying a pair of new shoes, dress,more furnitures

FACTORS TO CONSIDER WHEN BUDGETTING

1. The net income available
2. The nature of capital expenditure for planning
3. The taste of the family
4. The number of Dependants in the family

FOOD BUDGET : the following must be considered when preparing the food budget

1. The amount allocated for food
2. The tastes of the various members of the family
- 3.The types of food in season
4. Storage facilities available in the house
5. The relative price of commodities in different market so as to know where they are cheapest.

TOPIC : - CEREAL GRAINS

Specific objectives: - By the end of the lesson, students will be able to

1. Define the term cereal grains

2. State any three nutritive values of cereals

3. Mention any three examples of cereals

DEFINATION AND EXPLATIONS OF CEREAL GRAINS :- Cereals are edible fruits of the plants that belongs to the grass family. The fruits are known as grains and are used as food. It consists of germs, endosperm and bran.

EXAMPLES OF CEREALS ARE :- maize, corn/ millet . Sorghum, guinea corn, rice , wheat, oats, rye and barley.

EXPLANATIONS ON EXAMPLES OF CEREAL GRAINS; - Oats are grains from cereal plant *Avena sativa* and once harvested are purchased for used in animal feed , Skin products or food for use. Oats are milled , steamed, heated and cooled in either slow or normal cooling temperature which brings out the flavor. Oats can then rolled, cut or ground to produce flakes, oatmeal or flour.

2. Wheat grains :- It is a commonly cereal grains , It comes from a type of grass (*Triticum*) both the white and whole wheat flour are the key ingredients in baking goods such as bread, pasta , noodles, semolina, bulgur etc

3. BARLEY :- It is consumed as a whole grain. It is particularly rich source of fibres, it reduces hunger and may help in weight reduction, it improve digestion, it helps in reducing the risk of heart disease, lower cholesterol.

4. MAIZE. Maize is also known as corn , It can be eaten on the cob, as a whole corn is also considered a vegetable when harvested fresh. Maize is consumed directly by humans, for animals feed and other product such as corn starch and syrup.

Sweet corn is maize but not all maize is sweet corn. Maize and corn are interchangeable. Sweet corn is harvested before it is fully matured while seed corn is the fully matured ones

5. RICE:- Rice is the staple food and half of the whole world's popular food and is second to wheat most important food grown.

NUTRITIVE VALUE OF CEREALS

1. The major nutrients in cereal grains are carbohydrates
2. The grain also contain low content of fat. Protein, minerals and vitamins
3. The fibers increase helps in the free bowel movement and preventing constipation. The fibers act as roughages
4. Machine milled grains are made into flour, low extract, flours are of low nutrient, they contain less fiber.

Summary :- _ In summary cereals are the edible fruits of plants that belongs to the grass family. The fruits are known as grains and are used. as food eh maize . corn .millet. Sorghum, wheat, oats etc

EVALUATION :-

1. Define the term cereal grains
2. State any three nutritive values of cereals
3. Mention any three examples of cereal crops

TOPIC :- LEGUMES

SPECIFIC OBJECTIVES :- by the end of the lesson, the students will be able to

1. Explain legumes
2. List and explain the two main groups of legume
3. Differentiate between legumes and pulse and give two examples each.

LEGUMES

Legume is a type of food that comes from a specific type of plant that is called legume . Legumes come from the family leguminosae, and a trait of all legumes, they grow in a type of pod. Legumes are high in protein and not very fatty .So they are generally considered healthy.

b) Legumes are nutritious staple of diet around the world . They are an inexpensive source of protein , vitamins, complex, carbohydrates. and fiber.

c) Legumes refers to any plant from the fabaceae family that would include its leaves, stems, and pods.

d) For example a pea pod is legume but the pea inside the pod is the pulse

e) The entire legume plants is often used in agricultural applications as cover crops or in livestock feed or fertilizers

F. The seeds inside the pod is called the pulses such as beans, kidney beans, chickpeas etc

IMPORTANT OF LEGUMES

Legumes furnished food for humans and animals and provide edible oils, fibers, and raw material for their edible seeds which are high in protein, and contain many of the essential amino acids.

Examples of legumes are see beans, chicken pea, cowpea, lentili pea, peanut, soyabean and tamarind.

LEGUMES AS FOOD ARE DIVIDED INTO TWO GROUPS

1. PULSES

2. OIL SEEDS.

PULSES : - A pulse is the edible seeds from a legume plant .

b) Pulses are edible seeds inside those pods that have been harvested and dried for you to eat.

c) Pulses are edible seeds of cultivated legumes such ad peas, beans, and lentil

DIFFERENCE BETWEEN LEGUMES AND PULSE

1) Legumes are edible plants that grow in pods.

2. Pulses are edible seeds inside those pods that have been harvested and dried for you to eat

3. Legumes are shrubs, herbs and trees that grows multi leaf stalks and reproductive flowers that produce pod shape fruit.

4. Inside the pods you can find pea pod where you see your edible seeds known as pulses

5. Examples of legumes are the leaves, stems, and the pods

6. Examples of pulses are beans seeds in their various forms such as beans, kidney beans, black pinto, chickpeas beans etc

OIL SEEDS : - Oil seed crops are grown for the purpose of extraction of oil, which is contained in their seeds

b) The oil may be extracted by pressing or by solvent extraction

c) The residue after the oil extraction is called cake and is a good source of protein

EXAMPLES OF OIL SEEDS ARE

1. Coconut oil

2. Corn oil

3. Cotton seed

4. Olive oil

5. Palm oil

6. Palm kernel oil

7. Peanut oil

8. Sunflower oil etc

NUTRITIVE VALUE OF LEGUMES ; - Legumes provide a range of essential nutrients including protein, carbohydrates, dietary fiber, minerals and vitamins.

b) They are an economical dietary source of polgood quality protein and higher in protein than most other plant foods

c) The protein in legume is regarded as second class protein .

d) Because of high protein content of legumes, they should be incorporated into our diet so as to improve the nutritional quality of our meals.

Summary : - Legumes are type of food that comes from a specific type of plant that is called legume. It comes from the family leguminosae.

Evaluation

1. Explain the term legumes

2. List and explain the two groups of legumes

3. Differentiate between legume and pulse and give two examples each.

TOPIC : - FRUITS AND VEGETABLES

SPECIFIC OBJECTIVES : - by the end of the lesson, students will be able to

1. What are fruits

2. State any two classes of fruits

3. Mention any three nutritive values of fruits

4. List and explain any three methods of fruits preparations

FRUITS AND VEGETABLES

Fruits are seeds bearing structures that develops from the ovary of a flowering plants, whereas vegetables are all other plants parts such as roots, leaves and stems

b) fruit is the freshly or dry ripened ovary of a flowering plant, enclosing the seeds or seeds.thus apricots, banana and grapes as well as bean .Corn, grains, tomatoes.cucumber , corn and almond are all technically fruits.

c) Fresh fruits and vegetables are picked before they are ripe . This allows them to fully ripen during transportation. It is also gives them less time to develop a full range of vitamins, minerals and natural antioxidants

CLASSIFICATION OF FRUITS : - Fruits can be classified into two main groups

1. FRESH FRUIT : - they include

a) soft fruits e. g different types of berries, banana, melon, mangoes , guavas

ii) Hard fruits : - e.g apples, pears, plums, Melon

iii) citrus : - Orange, lemon, grape fruits

2. DRY FRUITS : - e .g figs, apricots , dates prunes etc

NUTRITIVE VALUE OF FRUITS

1. The major nutrients in fruits is ascorbic acid

2. Some of the fruits are consumed raw, fresh and dried.

3. A large amount of vitamin c are present for consumption

4. Fruits also contain small quantity of carotene and B group of vitamin

5. Fruits also contain pectin which assists in the formation of jellies.

6. It contain little or no protein or fat

7. Ripe fruits contain no starch as they have been converted to sugar

8. Fructose and glucose are chief sugar found in fruits

9. Fruit provides little mineral salt,

10. The unripe fruits contain different types of organic acids

11. Some acids present in fruits are citric , oxalic, malic, tartaric acid.

PREPARATION OF FRUITS

1. RAW FRUITS : - Most fresh fruits, when thoroughly ripe are suitable for serving in raw form. Most of the nutrients especially vitamin c are retained and consumed when consuming fruits . They must be washed properly . Washing is necessary so as to remove dust, residual soil and other microorganisms which may be present on the fruit. After washing, peel the fruits in respect of some fruits like banana, pawpaw, citrus, pineapple.

2. COOKED FRUITS : - Some times, fruits are cooked for variety to make it more nurishin, soften cellulose or cook the starch.

b) Green apples are cooked so as to improve their starch content

3. STEWING :- Fruits can be stewed in water or cooked in sugar syrup. Those fruits cooked in syrup usually maintain their shape better than those cooked in water

4. BAKING : - Another method used in cooking fruits is baking method . Apples are prepared for baking by cooking and slitting the skin at right angles to core around the middle of the apple to avoid splitting during baking . Fruits can be baked together with different ingredients for variety reasons

EFFECTS OF COOKING ON FRUITS

1. The vitamin c content is partially destroyed and may even be destroyed completely if the cooking heat is high.

2. The cellulose is soften and the fruit becomes softer and more digestible

3. During cooking, pectin, necessary for the sitting of jams and jellies is releas.

4. Mineral salts are drained out into the water, but not lost if syrup made from the cooking water.. The cooking water is served with the fruits

5. cooking destroys bacteria that may be present in the fruit

METHODS OF SERVING FRUITS

1. Fruits can be served whole, fresh, ripe and raw

2. Unripe fruits, sour fruits, and fruits with hard seeds may be cooked

3. The juice of the ripe fruits can be squeezed out and served in cups
4. The juice of unripe fruits can also be used after it has been cooked to make jellies or fruit food and served as in form of salads

Summary : - Fruits are seeds bearing structure that develops from the ovary of a flowering plants, whereas vegetables are all other plants parts such as roots, leaves and stems

Fruits are classified into two groups such as fresh fruits hard fruits and citrus. Then the major nutrient in fruit is ascorbic acid

Evaluation

1. What are fruits
2. State any two classes of fruits
3. Mention. any three nutritive values of fruits
4. List and explain any three methods of fruits preparations

TOPIC : - VEGETABLES

SPECIFIC OBJECTIVES : - by the end of the lesson the students will be able to

1. Explain what vegetables are
2. State and explain any three classifications of vegetables
3. Mention any three nutritive values of vegetables
4. Enumerate any three factors to consider when choosing vegetables

VEGETABLES : - Vegetables are plants cultivated for edible parts, roots, stems, leaves, or flowers, vegetables are among the high perishable foodstuff and are seasonal.

(b) They can be kept for a reasonable long period of time and are made available during off season due to the advancement in science and technology.

CLASSIFICATION OF VEGETABLES : - Vegetables are classified into the following groups

1. ROOT VEGETABLES : - eg carrots, parsnips, turnips
2. TUBERS : - e.g potatoes
3. GREEN LEAVES : - eh water leaf , cabbage, spinach, amaranthus, lettuce etc
4. SWOLLEN LEAVES : - bulbs e.g onions,
5. MISCELLANEOUS VEGETABLES e.g cucumber, pumpkin, pepper, garden eggs, okro.

NUTRITIVE VALUE OF VEGETABLES

1. Leafy vegetables rich in B - complex vitamins and fair amount of vitamin c.
2. They are also rich in carotene which helps to reduce vitamin A.
 - b) Leafy vegetables are good source of crude fibre which are the property of absorbing water and assists in easy defecation.
3. Vegetables are also good source of the mineral elements like iron, calcium, phosphorus, sodium and sulphur.
 - b) The presence of phatic acids and oxalates in vegetables often interfere with the proper utilization of iron and calcium found in these mineral elements
4. Vegetables are low in energy content and efficiency especially for being deficient in fat and carbohydrates.
5. They are not highly proteinous but should be complemented with other source of protein

FACTORS TO CONSIDER WHEN CHOOSING VEGETABLES

1. The color should be attractive and they should look crisp and fresh

2. The mid rib of large leaves eh spinach, snap sharply when broken a cross.
3. They should be free from insect attack.
4. The leaves should not drop when the branch is shaken

MISCELLANEOUS VEGETABLES

1. They should not be over ripe and should be free from insect attack eg maggots
2. They should be fresh eh okro should snap sharply when broken
3. Onions should be firm and well covered with skins

ROOT VEGETABLES

1. Should be free from soil
2. Skin should be smooth, unwrinkled and firm
3. They should be free from bruises caused by cuts or spades
4. They should be free from signs of decay
5. Medium sized vegetables should be chosen in preference to very small or very large ones

REASONS FOR COOKING VEGETABLES

- a) Vegetables are cooked to make them more digest able by softening the cellulose and starch grains in starchy vegetables
- b) To make them more pleasant to taste and appetizing

Summary : - Vegetables are plants cultivated for edible parts, roots, stems, leaves or flowers.vegetables are among the highly perishable foodstuffs and are seasonal.

Evaluation : -

1. Explain what vegetables are

2. State and explain any three classifications of vegetables
3. Mention any three nutritive value of vegetables
4. Enumerate any three factors to be considered when selecting vegetables.