**SECOND TERM E-NOTES FOR S.S.S. TWO FOODS & NUTRITION**

**WEEK ONE TO WEEK TWELVE**

**SCHEME OF WORK**

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| **WEEKS** | **TOPICS** |
| 1 | Revision of last term’s work |
| 2 | Kitchen equipment and utensils: identification and types of Kitchen equipment and utensils, uses, care and storage of equipment |
| 3 | Labour saving devices: uses and factors to consider when choosing labour saving devices, care and maintenance |
| 4 & 5 | Time and energy management in food preparation: definition of Time and energy management, tasks that required Time and energy management e.g. cake baking, bread, yam pounding e.t.c. guidelines on Time and energy management, identification of Time and energy management devices |
| 6 | Flour mixtures: types of flour in cookery e.g. whole wheat, all purpose, instanding flour e.t.c., properties and composition of flour, examples of foods produced from these flour types. |
| 7 | Raising agents: air, baking powder, yeast, palm wine, steam e.t.c. properties and composition |
| 8 | Practical on flour mixtures – cake baking, pastry, dough e.t.c. |
| 9 | Flours from local food stuffs in cookery e.g. cassava flour, soybean flour, corn flour e.t.c. |
| 10 | Practical work on local flour mixtures (composite flour) |
| 11 | Special nutritional needs: infants and children, adolescents, adults and the aged, pregnant and lactating mothers. |
| 12 & 13 | Revision and examination. |

**WEEK: ONE**

**TOPIC: REVISION OF LAST TERM’S WORK**

**WEEK: TWO**

**TOPIC: KITCHEN EQUIPMENT AND UTENSILS:**

**SUB-TOPIC: IDENTIFICATION, USES, CARE AND STORAGE OF EQUIPMENT**

Kitchen can be described as the laboratory in the room were family meals are prepared. Kitchen equipment is the material used in the kitchen in carrying out food preparation effectively. There are small and large items needed to perform various tasks in the kitchen. They can be grouped under the following headings according to their functions in the kitchen; ***these include***

1. Large equipment
2. Mechanical equipment
3. Tools and utensils or small equipment
4. Measuring tools

**Large equipment**; they are fitted permanently in the kitchen once they are installed. They are usually not removed frequently

***Types***

1. Cooker
2. Sinks
3. Dish washer
4. Working surfaces and shelves
5. Grill and salamanders

**Mechanical equipment**

1. Refrigerator
2. Food mixers
3. Food slicers and choppers
4. Masher

**Tools and utensils:** they are those materials that are often move about in the kitchen almost on a daily basis.

***Types***

1. Cooking pots and pans
2. Kitchen cutlery
3. Tim wares
4. Graters
5. Wooden articles such as wooden spoons, mortals and pestles, chopping board, rolling pin e.t.c.
6. Earthen wares
7. Plastic wares

**Measuring tools (tools for weighing)**

1. Scales ***(balance scales and spring scales)***
2. Measuring cups
3. Measuring spoons

**USES AND CARE OF COOKERS**

1. Cookers are used for cooking food
2. Some gas cookers are used for baking
3. Some are also used for grilling

***Care***

The cooker should be cleaned each time it is used. The wire gauze should be removed and washed with warm soapy water and rinsed properly. The enamel part should be washed with warm soapy water using a duster so as not to scratch the surface.

**USES OF SINKS**

1. Dirty plates ad cutlery are stored in the sink pending the times they will be washed
2. Cooking utensils are washed in the sink
3. Fruits and vegetables as well as meat and fish can also be washed there.

***Care***

The sink should be washed with hot soapy water and thoroughly rinsed after each use, if necessary, it should be scoured with cleaning agent e.g vim. Solid or left over food like rice, beans, yam e.t.c. should not be poured into the sink as this particles may clog the drain pipes. Use sink basket to prevent blockages of the sink outlet. Disinfect the outlet occasionally.

**USES OF REFRIGERATOR**

1. They are used for preserving raw food
2. They are used for preserving cooked food items and other materials that are easily perishable

***Care***

1. Hot food should not be arranged inside the refrigerator
2. Do not open the door for too long. If does, warm air will enter. Thus, giving in additional work.
3. Never remove material from the freezer component with sharp object.
4. Always remember to defrost the refrigerator when too much ice-crystals accumulate in the freezer compartment.

**USES OF FOOD MIXERS**

1. They are used for mixing pastry for cakes
2. They are used for mashing potatoes
3. They are used for beating white eggs, mayonnaise, chopping vegetables and meat.

***Care***

1. All the compartment as well as the main machine should be thoroughly washed
2. Care should be taking to ensure that no rust occurs on any part

**USES OF KITCHEN TOOLS AND UTENSILS (CUTLERY)**

1. Spoons are used for eating as well as fork.
2. Kitchen scissors are used for cutting as well as knife
3. Potatoes peeler is used for peeling potatoes

***Care***

1. Wash immediately after use in hot soapy water
2. Do not soak, remove stains with steel wools
3. Keep knife on rack
4. Hang spoons or fish slicer on hanger to drip dry.

**USES OF WOODEN ARTICLES**

1. Rolling pins are used for rolling out pastry
2. Wooden spoons are used for stirring food to prevent burning

***Care***

Scrub along the grain of the wood using a brush or scourers. Rinse well and air dry.

**MEASURING SCALE AND THEIR USES**

**A. SCALES;** these are used to weigh dry or solid ingredients. There are two types of scales.

1. ***Balance scale (with weight);*** the correct weight is obtained when the food on the scale’s pan balanced the weight on the other weight, so that the both sides are levelled. This is more accurate.
2. ***Spring scales;*** the correct weight when an indicator needle is pointing to the required weight on the dial. It is important that the indicator needle points to zero before one begins to weigh.

**B. MEASURING CUPS;** these are for measuring liquid or dry ingredients. To obtain a correct measurement of liquid, a cup must be placed on a large surface and the reading taking on a flat level. To maintain a measurement of dry ingredient, one must levelled up the ingredient before a reading is taking.

**C. MEASURING SPOONS;** These are used for measuring liquids and dry ingredients

***Evaluation:***

1. ***Differentiate between large and small kitchen equipment with examples***
2. ***State the uses of the equipment mentioned above***
3. ***highlight methods of cleaning the kitchen equipment mentioned above***

***Assignment:***

1. ***List five factors that should be considered when purchasing a refrigerator***
2. ***Outline the procedures to follow in the proper care of the refrigerator***

**WEEK: THREE**

**TOPIC: LABOUR SAVING DEVICES**

**SUB-TOPIC: FACTORS TO CONSIDER WHEN CHOOSING LABOUR SAVING DEVICES**

Labour saving devices are pieces of equipment that reduces the physical task involved in carrying out some cooking processes. These include:

|  |  |  |
| --- | --- | --- |
| **DEVICES** | **USES** | **CARE** |
| MIXER | To mix cakes and pastry | Wipe base with wet napkins, wash mixing bowl attachment with warm soapy water, dry and store in a dry place. |
| YAM POUNDER | To pound yam | Wipe base with wet napkin, separate accessories, wash with soapy water, rinse and dry. |
| PRESSURE COOKER | For though cut of meat, it is fast and save fuel | Follow instructions for uses, wash with warm soapy water, rinse and dry before storing. |
| Meat mincer | Basically for grinding meat, but could be used for nuts and vegetables | Separate the blade, wash with warm soapy water, rinse and dry, wrap blades in greasy paper and store in a dry place. |
| BLENDER | For pureeing and grinding ingredient | Wipe base with wet napkin, wash cup without allowing water to touch the bottom, store in a dry place. |
| ORANGE SQUEEZER | For squeezing juice of fruit e.g. oranges, grape, lemon e.t.c | Wash in warm soapy water, rinse and dry before storing |
| MICROWAVE OVEN | For warming food, the one with grill bakes cake and grills fish and meat. | Use clean cloth and dry splits, clean the outside. Use wet napkin to clean inside and outside. |

**FACTORS TO CONSIDER WHEN CHOOSING KITCHEN EQUIPMENT**

**AND LABOUR SAVING DEVICES**

1. The money at hand
2. The family size
3. The size of the kitchen
4. Durability, efficiency, reliability and ease of cleaning of the equipment
5. The nature of food to be cooked
6. If a lid is required, the one chosen must have a well-fitting lid
7. Handles should be strong to bear the weight of the container if lifted
8. The convenience of the user.

***Evaluation:***

1. ***What is dove tailing?***
2. ***Outline factors that should be considered when choosing labour saving devices.***

***Assignment:***

***Differentiate between labour saving devices and mechanical equipment with 5 examples each.***

**WEEK: FOUR AND FIVE**

**TOPIC: TIME AND ENERGY MANAGEMENT**

**SUB-TOPIC: GUIDELINES ON TIME AND ENERGY MANAGEMENT**

Time management is the process of planning, organizing, implementing and evaluating the use of time in order to accomplish or perform certain tasks or duties.

Energy is the ability in us which enables us to do work. It is human resources, everyone has energy to use but the one we have is limited. Energy management is the process of planning and controlling the use of energy in order to preserve it. When energy is properly managed more tasks can be accomplished in a shorter time without much fatigue.

Time and energy management is the process of proper use of planned time and energy to carry out food preparation without fatigue. (i.e after meal preparation, the homemaker or food handler is still full of energy)

**TASKS IN FOOD PREPARATION THAT REQUIRES TIME AND ENEGRY MANAGEMENT**

1. Washing up dishes and pots
2. Weighing, cutting and grinding ingredient
3. Arranging working area and ingredient
4. Clearing, cleaning, moping and tiding the kitchen
5. Cooking the meal
6. Arranging the equipment back to shelve
7. Laying and setting table
8. Plan of work

**IMPORTANCE OF TIME AND ENERGY MANAGEMENT IN FOOD PREPARATION**

1. It will reduce waste of time or eliminate prolong cooking
2. It make meal preparation interesting and less fatigue
3. You can prepare many dishes and drinks within a specific period of time
4. It avoid waste of cooking fuel
5. It prevent kitchen accident
6. It makes meal preparation faster
7. It helps to increase the home maker interest in cooking
8. The major reason for energy management is to conserve it.

**GUIDELINES FOR TIME AND ENEGRY MANAGEMENT**

1. Use a time table or a time plan, this will help to avoid confusion and ensure that meal preparation is accomplished at specified time without fatigue.
2. Arrange the kitchen in such a way to prevent retracing of your steps so that work can be carried out in a sequence
3. An arrangement of equipment to suit this sequence can conserve time and energy for the home maker.
4. Use the best method suitable for each dish
5. Prepare properly for the meal preparation, for instance, avoid uncomfortable dress.
6. Avoid distraction, it leads to waste of time and energy
7. Provide and use suitable cooking equipment for the various dishes prepared
8. Allocate time for washing utensil and put them away during cooking process
9. Use labour saving devices or equipment where necessary. E.g. use tray for carrying dishes instead of carrying them one after the other, use electric blender to grind pepper instead of grinding stone.
10. Use convenient food and rechauffe (left over food effectively save time and energy)

***Evaluation:***

1. ***Explain time and energy management***
2. ***Outline five importance of time and energy management in food preparation***
3. ***Mention five guidelines for time and energy management.***

***Assignment:***

***Itemise 10 time and energy management devices.***

**WEEK: SIX**

**TOPIC: FLOUR MIXTURES**

**SUB-TOPIC: PROPERTIES AND COMPOSITION OF FLOUR**

The term ***‘flour’*** refers to the powder derived from grounded wheat. The process of grinding the wheat to obtain the fine powder is called ***‘milling’*** During the process of milling, the whole wheat grain can be used to obtained the flour of the various layers that surround the endosperm can be removed before the remainder is mixed to the powdered form.

**TYPES OF FLOUR IN COOKERY AND THEIR PROPERTIES**

1. **Whole wheat flour**: this is also known as ***graham flour*** or entire wheat flour. It contains all the natural constituents of wheat in undiluted proportions. Because of its high fat content, it can easily go rancid and cannot be stored for a long period.
2. **All-purpose flour:** this is also called ***general purpose or family flour***. It is intermediate to bread flour and cake flour in its characteristic and is intended for all cookery purpose.
3. **Instant blending flour**: Also known as agglomerated flour. It is characterised by a granular texture and is of uniform particles in size. It is free flowing, disperses quickly in cold water, is dust free, does not pack down and hence requires no pre-sifting.
4. **Self-rising flour**: It contains salt and the ingredients of baking powder, hence, it has the characteristics of rising even when used without the addition of raising agents. It is suitable for making scones and plain cakes.
5. **Composite flour:** these are mixtures of two or more different types of flour. E.g wheat flour can be mixed with corn or millet or cassava flour in specific ratio. The resulting flour is known as composite flour and can be used in caking.

***Evaluation:***

1. ***Describe the term milling***
2. ***Outline five types of flour in cookery and state their uses.***

***Assignment:***

***Explain the following types of flour:***

1. ***Cake flour***
2. ***Pastry flour***
3. ***Soft-wheat flour***
4. ***Hard-wheat flour***

**WEEK: SEVEN**

**TOPIC: RAISING AGENT**

**SUB-TOPIC: TYPES OF RAISING AGENT**

Raising or leaving agents are substances that produce gas in flour mixtures which cause them to rise and become lighter, bigger and softer in texture and porous after cooking. The use of a raising agent is based on the principle that hot air rises and expands.

**TYPES OF RAISING AGENTS**

1. Baking powder: consists of an acid (cream of tartar or tartaric acid) and an alkali (bicarbonate of soda) with the addition of some starchy ingredient such as rice flour which proportion of ingredient is twice the amount of acid to alkali i.e.

4gm cream of tartar

3gm bicarbonate of soda

2gm rice flavour.

1. Yeast: the scientific name for yeast is ***saccharomyces cerevisial***. Yeast is made up of a large number of minute’s cells. When kept cool and dry, the cells are inactive, when added to water with a little sugar and gently warmed, the yeast grows rapidly, giving off carbon dioxide which works through the dough making it light. Extreme heat kills yeast and it can have no further activity. Cold retards or hinders its action but does not kill it.
2. Palm wine: this is a good raising agent for it contains yeast. It is used for commercial bread making and is more economical than yeast. Warmth, sugar and moisture are necessary conditions for its raising action like yeast. Excessive heat, cold and too much sugar retard or stop its growth. Sometimes, for large scale bread making, overripe banana are used to produce a raising agent with the same characteristics as yeast or palm wine. The overripe banana are left to ferment before they are put into use for the purpose. Flour products you can use palm wine as raising agent are bread of different types.
3. Steam: is an effective raising agent. Steam is the principle raising agent in pop overs and cream puffs. Steam contributes to the expansion of baked products in which other raising agents are used.
4. Air: when air is incorporated into flour mixture and put into the oven to bake, the trapped air expands in volume and therefore leavens the product. Air beaten into egg white is the principal raising agent of omelette, sponge cakes and angle cakes.

***Evaluation:***

1. ***What are raising agents?***
2. ***State the composition of baking powder and the ratio of each component***

***Assignment:***

***Describe how palm wine is used in the commercial bread production***

**WEEK: EIGHT**

**TOPIC: PRACTICAL ON FLOUR MIXTURES**

**SUB-TOPIC: cakes, pastries, dough and biscuit**

**WEEK: NINE**

**TOPIC: FLOURS FROM LOCAL FOOD STUFFS IN COOKERY**

**SUB-TOPIC: TYPES OF FLOURS FROM LOCAL FOOD STUFFS IN COOKERY**

1. **Cassava flour**: is made from the root of the cassava plant, in a purified form (pure starch), it is called ***tapioca flour***
2. **Coconut flour**: is made from grounded coconut meat and has the highest fibre content of any flour, having a very low concentration of digestive carbohydrates and thus making an excellent choice for those who want to restrict their carbohydrate intake. It also has a high fat content of about 60%.
3. **Potato starch flour**: is obtained by grinding the tubers to a pulp and removing the fibre and protein by water-washing. Potato starch flour is a very white starch powder used as a thickening agent.
4. **Rice flour:** is ground kernel of rice. It is used in Western Countries especially for people who suffer from gluten intolerance since rice does not contain gluten. Brown rice flour has higher nutritional values than white rice flour.
5. **Soy flour:** is made by roasting the soy-beans, removing the coat and grinding into flour. Soy flour is manufactured at different fat levels. Alternatively, raw soy flour omits the roasting step. Soy flour has 50% protein and 5% fibre. It has higher levels of protein thiamine, riboflavin, phosphorus, calcium and iron than wheat flour. Soy flour thickens sauces, prevents staling in baked food and reduces oil absorption during frying.

***Evaluation:***

***List the different types of flour that can be gotten from local food stuffs.***

***Assignment:***

***State 3 local snacks that can be prepared from flours of local foodstuffs with their recipes.***

**WEEK: TEN**

**TOPIC: PRACTICAL WORK ON LOCAL FLOUR MIXTURES**

**SUB-TOPIC: COMPOSITE FLOUR**

**WEEK: ELEVEN**

**TOPIC: SPECIAL NUTRITIONAL NEEDS**

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

Guidelines for providing children’s meal

1. The food must be rich in protein for body building, energy foods for their activities, minerals and vitamins for vitality.
2. Their food should be rich in milk, meat, fish, eggs, legumes
3. Meal times should be regular.
4. Their food must be cooked by the most easily digested methods
5. An excessive consumption of sweets and candies that may lead to tooth decay should be avoided.

**ADOLESCENTS:** Adolescence is the period of rapid growth. The adolescents therefore need proper feeding. They also have increased appetite. 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 girl’s 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. An adult’s diet should be balanced, it should also be suitable for his work, age and health. The following are special groups of adults

1. **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.
2. **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 this group are often characterised by reduced physical activity. They therefore need less energy. This means that the quantity of energy food required by the aged needs to be slightly decreased. Their needs for proteins, vitamins remain unchanged. Their food must be easy to chew and digested.

***Evaluation:***

1. ***State the guidelines for providing meal for the children***
2. ***Differentiate between a sedentary worker and a manual worker***
3. ***Meals for children should be cooked by easily \_\_\_\_\_\_\_\_\_\_ method?***

***Assignment:***

***Explain the nutritional needs of a pregnant woman and a lactating mother.***

**WEEK: ELEVEN**

**TOPIC: REVISION**

**WEEK: TWELVE**

**TOPIC: EXAMINATION**