



# SHS11 Q1 Mod1 Cookery NC II Cleanand Maintain Kitchen Toolsand Premises version 3

Professional Education (Lyceum of Subic Bay)



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# **COOKERY NCII**

## **MODULE 1: Clean and Maintain Kitchen Tools and Premises**



**Republic of the Philippines • Department of Education**

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### **Cookery NCII - Grade 11**

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#### **Development Team of the Module**

**Author:** Ariane B. Corotan

**Reviewers** Cherry M. Sadicon  
Marsh Liza L. Ragot  
Fe L. Daludog  
Sheila T. Arellano

Management Team

**Chairperson:** Dr. Arturo B. Bayocot, CESO III  
Regional Director

**Co-Chairperson:** Dr. Victor G. De Gracia Jr. CESO V  
Asst. Regional Director Mala Epra B.  
Magnaong CES, CLMD

**Members:** Dr. Bienvenido U. Tagolimot, EPS-AMD  
Dr. Joel D. Potane, EPS-LRMDS  
Himaya B. Sinatao, EPS-LRMDS

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Department of Education – Bureau of Learning Resources (DepEd-BLR)

Office Address: Zone 1, Upper Balulang Cagayan de Oro City 9000

Telefax: (088) 880-7071, (088) 880-7072

E-mail Address: region10@deped.gov.ph

# **COOKERY NCII**

## **MODULE 1: Clean and Maintain Kitchen Tools and Premises**

This instructional material was collaboratively developed and reviewed by educators from public schools. We encourage teachers and other education stakeholders to email their feedback, comments, and recommendations to the Department of Education at [action@deped.gov.ph](mailto:action@deped.gov.ph).

We value your feedback and recommendations

**Department of Education • Republic of the Philippines**

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## TO THE STUDENT

Greetings!

**Welcome to this module especially made for you!** This module contains training materials and activities for you to finish. You are required to go through a series of learning activities. If you have questions, don't hesitate to ask your teacher for assistance.

This will give you the opportunity to develop your skills in Cleaning and Maintaining Kitchen Tools and Premises according to standard operating procedures, techniques and knowledge of Cookery NCII.

This will prepare you to move on to the next important skills for development in Cleaning and Maintaining Kitchen Tools and Premises.

## HOW TO USE THIS MODULE

In this module, you will find information sheets, self-checks and activities for each learning outcome for you to accomplish. Each learning module contains one performance task with accompanying its rubrics for you to follow and complete.

This module is prepared to help you understand the basic concept and underlying theories and achieve the required competency in Cleaning and Maintaining Kitchen Tools and Premises. This will be the source of information that will enable you to acquire the knowledge and skills in COOKERY NCII independently at your own pace with minimum supervision from your teacher.

In doing the activities to finish the requirements of this module, please be guided by the following:

- Talk to your teacher and agree on how you both will organize the training under this module. Read through this module carefully. It is divided into section, which cover all the skills and knowledge you need to successfully complete.
- Work through all information and complete the activities in each section. Read the Lesson Information and complete the self - checks provided.
- Most probably your teacher will also be your supervisor or manager. He / She is there to support you and show you the right way to do things. Ask help.
- You will be given plenty of opportunities to ask question and practice on the job.
- When you are ready, ask your teacher to watch you perform the activities outlined in this module.

## Overview

This manual provides various and relevant activities and opportunities to determine your understanding of the key concepts and to demonstrate core competencies as prescribed in the TESDA Training Regulation in Cookery. This manual is specifically crafted to focus on the different activities that will gauge your level in terms of skills and knowledge necessary to get a Certificate of Competency and/or National Certification NC II. Successful completion of this specialization ensures that you have attained the essential skills to be on your way to becoming a certified chef.

## Introduction

This module is designed to equip you with essential Knowledge, Skills, and Attitude in performing the tasks on Clean and Maintain Kitchen Tools and Premises which will lead you to acquire **National Certificate Level II**.

This modules includes information and activities to develop desirable values, skills and understanding through step-by-step procedures and helpful techniques that will guide you on how to prepare, decorate and present pastry products. Performance tasks and applications to real life situations are also included for lifelong learning.



### Objectives What to Learn in this Module

At the end of the lesson, you're expected to:

- identify the chemicals to be utilized in cleaning and sanitizing kitchen tools and equipment
- prepare cleaning agents in accordance with manufacturer's instructions
- clean and sanitize kitchen tools in accordance with prescribed standards
- store cleaned kitchen tools and equipment safely in the designated space
- recognize kitchen premises to be cleaned and sanitized



## What I Know?

### Pre-Test

Direction: Multiple Choice. Read the following statements carefully. Choose the letter that best describes the statement. Write your answer on your test notebook.

1. Which of the following is a material used for salad making and dessert that need great care to ensure long shelf life?  
A. double boiler  
B. teflon  
C. glass  
D. stainless steel
2. A special coating applied inside the aluminum or steel pots and pans that prevents food from sticking to it.  
A. double boiler  
B. teflon  
C. glass  
D. stainless steel
3. Ana finds it hard to remove tough soils from the used pots and pans. It does not respond to the different cleaning agents that she has used. If you will help her, which of the following will you recommend that will surely solve her problem?  
A. abrasive  
B. acid cleaner  
C. detergent  
D. solvent cleaner
4. The following are ways on how to take care of glass kitchen tools, EXCEPT;  
A. To remove stain, use 2 table spoon of liquid bleach per cup of water when soaking and cleaning.  
B. Use a nylon scrub.  
C. Scratch it with sharp instrument such as knife or fork  
D. Use baking soda to remove grease crust and boiled vinegar as final rinse.
5. These are the factors that influence the cleaning process, EXCEPT;  
A. Time  
B. Soil  
C. Temperature  
D. Sanitize
6. Which of the following situations is good housekeeping practice best shown?



- A. Emptying the garbage can every other day.
  - B. Using imported sanitizing and disinfecting materials
  - C. Spraying air freshener before and after leaving the room.
  - D. Planning and implementing a program of regular cleaning of fixtures, furniture and home appliances
7. Which of the following knife is used for trimming and paring fruits and vegetables?
- A. butcher knife
  - B. French knife
  - C. paring knife
  - D. shears
8. If the person has been exposed to poisonous fumes such as carbon monoxide, what will you do?
- A. give him water to drink
  - B. remove anything in the mouth
  - C. give him cloth to cover his mouth
  - D. get him or her into fresh air immediately
9. Your younger sister accidentally swallowed poison. What first aid treatment should you do?
- A. Read the label of the poisonous material.
  - B. Remove anything remaining in the mouth.
  - C. Give her a glass of water or any fruit juice.
  - D. Give her a spoonful of sugar or any kind of sweets.
10. Which of the following is the proper steps of washing with the dishwasher machine?
- 1. Add detergent.
  - 2. Fill your dishwasher logically
  - 3. Don't crowd the dishes.
  - 4. Turn it on.
- A. 4 3 2 1    B. 2 3 1 4    C. 3 2 1 4    D. 1 2 3 4
11. The following are the first aid procedure caused by chemical poisoning; EXCEPT:
- A. If the person swallowed the poison, remove anything remaining in the mouth.
  - B. Follow treatment directions given by poison centers.
  - C. If the person has been exposed to poisonous fumes, such as carbon monoxide, get him or her into fresh air immediately.
  - D. If the suspected poison is a household cleaner or other chemical, let the person drink milk and sugar.

12. Remove unnecessary clutter from surfaces means,
- A. To ensure that any germs will not remained
  - B. To discard appliances and gadgets that you don't use any more
  - C. To remove any foul smells
  - D. To avoid accidents
13. Use separate chopping boards for different kinds of food to reduce the spread of?
- A. Germs
  - B. Bacteria
  - C. Virus
  - D. Infections
14. Mila was asked to disinfect their kitchen. She must do the following procedures for disinfecting; EXCEPT?
- A. Preliminary cleaning
  - B. Use hand towel to wipe all surfaces including the floor.
  - C. Rinse all surfaces that come in contact with food such as exterior of appliances, tables and stove top with potable water before rinse.
  - D. Use a spray device for spray application Spray 6-8 inches from the surface, rub with a brush, sponge or cloth
15. Which of the following is done using heat, radiation, or chemicals?
- A. Cleaning
  - B. Rinsing
  - C. Sanitizing
  - D. Washing



## What's New

### Activity 1.1

Direction: Choose the correct match for each pictures. Write the letter only in your test notebook.

1.



- a. Aluminum
- b. Glass
- c. Cast iron

2.



- a. Kitchen shears
- b. Peeler
- c. Citrus zest

3.



- a. Conventional Oven
- b. Microwave oven
- c. Oven toaster

4.



- a. Graters
- b. Peeler
- c. Potato mashers

5.



- a. Stainless Spoon
- b. Spatula
- c. Whisk



## Learning Outcome 1

### **Clean, Sanitize and Store Kitchen Tools and Equipment** **What is It**

Cleanliness is vital in every kitchen where food is prepared, cooked and served. In order to avoid food contamination, kitchen tools, equipment and other utensils used in the preparation of food as well as its premises should be cleaned and sanitized, and store properly after each use.

Cleaning and sanitizing kitchen tools and equipment must be part of the standard operating procedures that make up your food safety program. Improper cleaning and sanitizing kitchen surfaces allow harmful microorganisms to be transferred from one food to another.

#### **Lesson Information 1.1**

**The following are list of cooking materials, kitchen utensils and equipment that are commonly found in the kitchen.**

#### **Cooking Materials**

**Aluminum** is mostly used in the kitchen and the most popular because it is lightweight, attractive and less expensive; It requires care to keep it shiny and clean; It also gives even heat distribution no matter what heat temperature you have. It is available in sheet or cast aluminum. Since it is a soft metal, the lighter gauges will dent and scratch easily, making the utensil unusable. Aluminum turns dark when used with alkalis, such as potatoes, beets, carrots and other vegetables. While acid vegetables like tomatoes will brighten it.



**Stainless Steel** is the most popular material used for tools and equipment, but it is more expensive. It is easier to clean and shine and will not wear out easily. Choose those with copper, aluminum or laminated steel bottoms to



spread heat and keep the pot from getting heat dark spots. Stainless steel utensils maybe bought in many gauges, from light to heavy.

**Glass** is used for salad making and dessert but not practical for top or surface cooking. Great care is needed to ensure for long shelf life.

#### **How to take care of Glass?**

1. To remove stain, use 2 table spoon of liquid bleach per cup of water when soaking and cleaning.
2. Use baking soda to remove grease crust and boiled vinegar as final rinse.
3. Use a nylon scrub.



**Cast Iron** is durable but must be kept oiled to avoid rusting. Salad oil with no salt or shortening can be rubbed inside and out and dried. Wash with soap (not detergent) before using.



**Double boiler** is used when temperature must be kept below boiling, such as for egg sauces, puddings; it is used to keep food warm without overcooking.



**Teflon** is a special coating applied inside aluminum or steel pots and pans. It prevents food from sticking to the pan. It is easier to wash and clean, but be careful not to scratch the Teflon coating with sharp instrument such as knife or fork. Use a wooden or a plastic spatula to turn or mix food inside.



## Kitchen Tools

**Can opener** is used to open food containers.



**Colanders** also called a vegetable strainer, are essential for various tasks from cleaning vegetables to straining pasta or contents.



**Plastic and Hard Rubber** are used for cutting and chopping. They are duller than knives. Plastics are greatly durable and cheap but may not last long.



**Cutting boards** are wooden or plastic board where meat, fruits and vegetables are cut.



**Funnels** – are used to fill jars, made of various sizes of stainless steel, aluminum, or of plastic.



**Garlic Press** is a kitchen tool which is specifically designed for the purpose of pulping garlic.



**Graters** are used to grate, shred, slice and separate vegetables such as carrots, cabbage and cheese



**Kitchen shears** They are practical for opening food packages, cutting tapes or strings or simply remove labels or tags from items. Other cutting tools such as box cutters are also handy for opening packages.



**Potato masher** is used for mashing cooked potatoes, turnips, carrots or other soft cooked vegetables.



**Rotary egg beater** is used for beating small amount of eggs or batter. The beater should be made of stainless steel.



**Scraper** is a rubber or silicone tool used to blend or scrape the food from the bowl.



**Serving spoons** are bowl on a handle use serving, or eating food



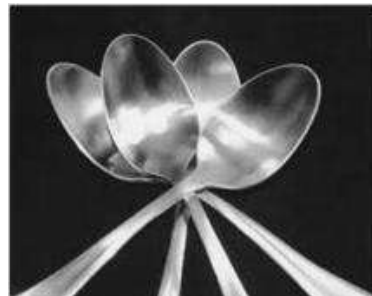
**Serving tongs** are used to grab and transfer food items, poultry or meat portions to a serving platter, hot deep fryer, and plate. They give you a better grip especially when used with a deep fryer, or a large stock pot or at then barbecue.



**Spatula** is used to level off ingredients when measuring and to spread frostings and sandwich fillings.



**Spoons** are solid, slotted, or perforated which are made of stainless steel or plastic. The solid ones are used to spoon liquids over foods and to lift foods, including the liquid out of the pot.



**Temperature scales** are used to measure heat intensity. Different thermometers are used for different purposes in food preparation – for meat, candy or deep-fat frying and other small thermometers are hanged or stand in ovens or refrigerators to check the accuracy of the equipment's thermostat





**Whisks** are used for blending, mixing, whipping eggs or batter, and for blending gravies, sauces, and soups. The beaters are made of looped, steel piano wires which are twisted together to form the handle.



**Wooden spoons** are made of hard wood which are used for creaming, stirring, and mixing.



### Measuring Tools

**Measuring cup for liquid ingredients** is commonly made up of heat-proof glass and transparent so that the liquid can be seen.



**Household Scales** are used to weigh large quantity of ingredients in kilos, commonly in rice, flour, sugar, legumes or vegetables and meat up to 25 pounds.



### Kinds of knives according to use:

**French knife** is used to chop, dice, or mince food. Heavy knives have a saber or flat grind.



**Fruit and salad knives** are used to prepare vegetables, and fruits



**Kitchen knives** often referred to as cook's or chef's tools, used for all types of kitchen tasks such as peeling an onion, slicing carrots, carving a roast or turkey, etc.



**Citrus knife** has a two-sided blade and serrated edge. It is used to section citrus fruits.



**Paring knife** is used to core, peel, and section fruits and vegetables. Blades are short, concave with hollow ground



**Vegetable peeler** is used to scrape vegetables, such as carrots and potatoes, and to peel fruits. The best ones are made of stainless steel with sharp double blade that swivels.



## Equipment

Equipment may refer to a small electrical appliance, such as a mixer, or a large, expensive, power-operated appliance such as ranges or a refrigerator.

Equipment's like ranges, ovens, refrigerators (conventional, convectional and microwave) are mandatory pieces in the kitchen or in any food establishment.

### 1. **Refrigerators/freezers**

Are necessary in preventing bacterial infections from foods. Most refrigerators have special compartment for meat, fruits and vegetables to keep the moisture content of each type of food. Butter compartment hold butter separately to prevent food odors from spoiling its flavor.



Basically, refrigerator or freezer is an insulated box, equipped with refrigeration unit and a control to maintain the proper inside temperature for food storage

2. **Oven** is a chamber or compartment used for cooking, baking, heating, or drying.



3. **Microwave ovens** are used for cooking or heating food.



4. **Blenders** are used to chop, blend, mix, whip, puree, grate, and liquefy all kinds of food. A blender is a very useful appliance. They vary in the amount of power (voltage/wattage)



## Lesson Information 1.2

### Chemicals used in cleaning and sanitizing kitchen tools and equipment.

**Cleaning** is the process of removing food and other types of soil from a surface, such as a dish, glass, or cutting board. Cleaning is done with a cleaning agent that removes food, soil, or other substances. The right cleaning agent must be selected because not all cleaning agents can be used on food-contact surfaces. *(A food-contact surface is the surface of equipment or utensil that food normally comes into contact.)* For example, glass cleaners, some metal cleaners, and most bathroom cleaners cannot be used because they might leave an unsafe residue on the food contact surface. The label should indicate if the product can be used on a food contact surface. The right cleaning agent must also be selected to make cleaning easy

### Cleaning Compound

1. **Detergents** These are cleaning agents, solvents or any substance used to wash tableware's, surfaces, and equipment. Example: soap, soap powders, cleaners, acids, volatile solvents and abrasives.



2. **Solvent Cleaners** commonly referred to as degreasers, they are used on surfaces where grease has burned on. Ovens and grills are examples of areas that need frequent degreasing. These products are alkaline based and are formulated to dissolve grease.



3. **Acid Cleaners** used periodically in removing mineral deposits and other soils that detergents cannot eliminate such as scale in washing machines and steam tables, lime buildup on dishwashing machines and rust on shelving. (Example: phosphoric acid, nitric acid, etc.) These products vary depending on the specific purpose of the product.



4. **Abrasives** are generally used to remove heavy accumulations of soil that are difficult to remove with detergents, solvents and acids. These products must be carefully used to avoid damage to the surface being cleaned.



**Other chemicals used for cleaning and/or sanitizing kitchen equipment and utensils are the following:**

- |                        |                            |
|------------------------|----------------------------|
| 1. Ammonia             | 4. Carbonic Acid           |
| 2. Dish washing liquid | 5. Timsen                  |
| 3. Chlorine            | 6. Disinfectants and Soaps |

**Lesson Information 1.3**

**Steps in Washing Dishes**

1. **Wear** rubber gloves if you have dry hands or other skin problem. If you are wearing long sleeves, roll them up or put them under the gloves. Wear aprons too.
2. **Scrape** all the large pieces of food on the dishes and place it in a compost bin or garbage can.



3. **Stack** the dishes in the proper order namely: glassware, silverware, chinaware, and utensils. Stack them to the right of the sink so that work progresses from right to left
4. **Fill the sink with water** and add a considerable amount of detergent. The hotter the water, the better it's sanitizing and grease-cutting properties but use tolerable heat (66°C /150°F or above) so not to scald yourself. Use rubber gloves.
5. **Wash the lightest soiled items first.** Start with glasses, cups, and flatware. Soap each piece individually and rinse in hot water.
6. **Wash** plates, bowls, and serving dishes. Remember to scrape these items before washing. Soap each piece gently and individually and rinse in hot water. Remember to keep an eye when you should change the dish washing water.
7. **Wash pots and pans last.** Soak them first. Wash the pans thoroughly and don't forget to clean the bottoms. If anything was burnt or overcooked to pots or casserole dishes, put a little extra soap and water in it and let it stand while you wash the other dishes. Take note that any oil residue left will lead to burnt food during the next cooking session.
8. **Lay your dishes** out on a rack to air-dry or wipe them clean with a towel.
9. **There** should be no visible matter and no "greasy" feel. Run a hand over the dish to ensure that they are thoroughly cleaned. If there are still some grease remaining, consider rewashing the item.



**10. Rinse out** brush, sponge and allow to dry. Sterilize your equipment often using boiling water with bleach. When a sponge or brush starts to smell unpleasant, throw it away.

**11. Wipe** down the sink and your tools, Wipe down the sink, dish drainer, and dishpan. Any rags, dish cloths or sponges need to be left out to air dry, or thrown into the washing machine. *Remember to replace sponge and rags frequently.*



### **Washing with the Dishwasher Machine**

Load it Up

#### **Fill your dishwasher logically.**

Establish a routine, and stick with it for most loads. *Things to consider:* Many dishwashers have a variety of spacing to accommodate large bowls, small bowls, utensils, dishes, and plates of varying sizes—on the bottom shelf. The top shelf is given to shorter items such as glasses, mugs, jars, and long utensils such as spatulas and stirring spoons.



#### **Don't crowd the dishes.**

Fill your dishwasher full, but not crammed—you'll maximize the cleaning capacity of your dishwasher and minimize excessive water usage.



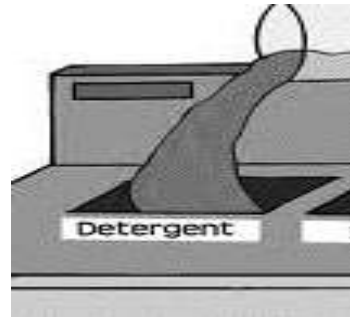
**Add detergent.**

Fill the detergent dispenser with cleanser either liquid or powder and close it up.

- You can add extra cleanser in a secondary cup should your dishes be excessively filthy.
- Add a rinsing agent to prevent spotting, if necessary.

**Turn it on.**

Set the timer as necessary. A shorter time for lightly-soiled dishes, or a longer time for heavily-soiled pots, pans, and dishes.

**Dry the dishes.**

You can use a heated dry (but be careful of plastic dishes or containers), or use air drying. Dishes will still dry relatively quickly, as dishwasher water is usually heated to 140°F

**Methods of Cleaning Equipment:**

1. **Foam** – You use this to increase the contact time of the chemical solutions to improve cleaning with less mechanical force.





**2. Clean In Place (CIP)** – It is utilized to clean the interior surfaces of tanks and pipelines of liquid process equipment. A chemical solution is circulated through a circuit of tanks and or lines then return to a central reservoir allowing the chemical solution to be reused. Time, temperature and mechanical force are manipulated to achieve maximum cleaning.



**3. Clean Out of Place (COP)** – is utilized to clean the parts of filters and parts of other equipment. This requires disassembly for proper cleaning. Parts removed for cleaning are placed in a circulation tank and cleaned using a heated chemical solution and agitation.

**4. Mechanical** – it normally involves the use of brush either by hand or a machine such as a floor scrubber. Mechanical cleaning uses friction for food soil removal.



## Lesson Information 1.4

### Fundamental Cleaning Procedures

1. **Scrape and Pre-rinse** – soiled equipment surfaces are scraped and rinsed with warm water to remove loose food soils.
2. **Cleaning Cycle** – the removal of residual food soils from equipment surfaces is based on the manipulation of the four basic cleaning factors and the method of cleaning. Typically, alkaline chemical solutions are used for the cleaning cycle.
3. **Rinse** – rinse all surfaces with cold to hot water, depending on the temperature of the cleaning cycle, to thoroughly remove all remaining chemical solution and food soil residues.
4. **Acid Rinse** – a mild acid rinse of the equipment neutralizes any alkaline residues left and removes any mineral soil present.
5. **Sanitize** – all equipment surfaces are rinsed or flooded with a sanitizing agent. Both time and chemical concentration are critical for optimum results.

## **Factors that influence the cleaning process**

- **Soil** – varying degrees of food soil will be deposited on the equipment during production. These food soils will require complete removal during the cleaning process and will affect the cleaning compound used, along with the method of cleaning.
- **Time** – the longer a cleaning solution remains in contact with the equipment surface, the greater the amount of food soil that is removed. More time in contact with the soil reduces the chemical concentration requirements.
- **Temperature** – soils are affected by temperature in varying degrees. In the presence of a cleaning solution most soils become more readily soluble as the temperature increases.
- **Chemical concentrations** – it varies depending on the chemical itself, type of food soil, and the equipment to be cleaned. Concentration will normally be reduced as time and temperature are increased.
- **Mechanical force** – is as simple as hand scrubbing with a brush or as complex as turbulent flow and pressure inside a pipeline. This aids in soil removal and typically reduces time, temperature and concentration requirements.
- **Water** – minerals in hard water can reduce the effectiveness of some detergents or sanitizers. Water pH ranges generally from pH5-8.5. However, highly acidic water may require additional buffering agents. Water used for cleaning and sanitizing must be potable and pathogen free.

## **Lesson Information 1.5**

### **Equipment Sanitation Procedures**

#### **1. Range**

- Remove all burnt sediments and wipe grease from top of range after each use
- Scrape grease from curbs and openings hinges
- When cool, wash top of range
- Run oiled cloth over top of range
- Clean oven by removing grates, scraping off food deposits, washing and drying
- Keep burners clean. Gas burners can be soaked and scrubbed with stiff brush while electric burners should be cleaned with a brush or with a damp cloth

#### **2. Dishwashing machine**

- Remove strainer pans; wash and stock outside machine until next use
- Scrub inside frequently with stiff brush
- Remove and clean the wash and rinse arms and fits daily to remove foreign particles

- D. Wash tables and top of machine
- E. Clean nozzles
- F. Do a special periodic cleaning in hard water area

### **3. Slicers**

- A. Clean immediately after using, especially after slicing vegetables and nuts
- B. Remove all parts to clean
- C. Dry and cover knives after cleaning with oil-damped cloth
- D. Wash carriage slides thoroughly
- E. Wipe outside with cloth
- F. Clean table and pedestal under slicers
- G. Replace guard after cleaning

### **4. Refrigerator**

- A. Wipe up spilled foods immediately
- B. Wash inside shelves and trays at least twice a week with baking soda
- C. Rinse and dry thoroughly
- D. Flush drains weekly

### **5. Sink and Drains**

- 1. Keep outlet screened at all times
- 2. Flush daily with 1 gal. of solution, made up of strong solution soda (4oz. to 2 gal. of water)
- 3. Clean and replace greased tray regularly
- 4. Use force pump if drain is slow
- 5. Replace washers immediately on leaking faucets

**Sanitizing** is done using heat, radiation, or chemicals. Heat and chemicals are commonly used as a method for sanitizing in a restaurant than radiation. The item to be sanitized must first be washed properly before it can be properly sanitized. Some chemical sanitizers, such as chlorine and iodine, react with food and soil and so will be less effective on a surface that has not been properly cleaned.

## **Methods of Sanitizing**

**1. Thermal Sanitizing.** It involves the use of hot water or steam. There are three methods of using heat to sanitize surfaces – steam, hot water, and hot air. Hot water is the most common method used in restaurants. If hot water is used in the third compartment of a three-compartment sink, it must be at least 171°F (77°C). If a high-temperature ware washing machine is used to sanitize cleaned dishes, the final sanitizing rinse must be at least 180°F (82°C). For stationary rack, single temperature machines, it must be at least 165°F (74°C). Cleaned items must be exposed to these temperatures for at least 30 seconds.



## 2. Chemicals.

Approved chemical sanitizers are chlorine, iodine, and quaternary ammonium. Different factors influence the effectiveness of chemical sanitizers.

The three factors that must be considered are:

- a. **Concentration.** The presence of too little sanitizer will result in an inadequate reduction of harmful microorganisms. Too much can be toxic.
- b. **Temperature.** Generally, chemical sanitizers work best in water that is between 55°F (13°C) and 120°F (49°C).
- c. **Contact time.** In order for the sanitizer to kill harmful microorganisms, the cleaned item must be in contact with the sanitizer (either heat or approved chemical) for the recommended length of time

## Lesson Information 1.6

### Proper Storage of Kitchen Tools and Equipment

Proper storage and handling of cleaned and sanitized equipment and utensils are very important to prevent recontamination prior to use.

Cleaned and sanitized equipment and utensils must be:

- Stored in clean storage areas; and
- Handled properly to minimize contamination of food contact surface:

## **9 Steps in Organizing Kitchen Cabinets**

Pretend it has a glass door and that everyone is going to see what's inside.

1. Remove all the equipment and scrub shelves with soapy water.
2. Think about what you reach most often and make sure it gets a position that is easy to reach.
3. Take a cabinet full of glasses and line them up by color. Make sure all of the front are facing out and straight. (Jeff Lewis-Style)
4. Take a step back after one shelf is done and make someone else look at what you have done.
5. They should be stored in a clean dry place adequately protected against vermin and other sources of contamination.
6. Cups, bowls, and glasses must be inverted for storage.
7. When not stored in closed cupboards or lockers, utensils and containers must be covered or inverted whenever possible. Utensils must be stored on the bottom shelves of open cabinets below the working top level.
8. Racks, trays and shelves must be made of materials that are imperious, corrosive-resistant, non-toxic, smooth, durable and resistant to chipping.

Drawers must be made of the same materials and kept clean. Full-lined drawers are not acceptable, but the use of clean and removable towels for lining drawers is acceptable.



### **What I Have Learned** **Self-check 1.1**

Direction: Write True if the statement is correct and False if the statement is incorrect. Write the answer in your test notebook.

1. Wash glassware first before greasy pots and pans.
2. Keep dishwashing liquid out of the reach of children.
3. Dishes cannot be washed easily if you keep them under the water while scrubbing them for particles to lift away. Bring the dish out of the water to check for any missed spots.
4. To remove stains from the cutting board, you can use the following procedure: wet the stained area with water and sprinkle it with salt and allow the salt to melt undisturbed for twenty-four hours.
5. Soil are affected by temperature in varying degrees. In the presence of a cleaning solution most soils become more readily soluble as the temperature increases.

6. Mechanical force is as simple as hand scrubbing with a brush or as complex as turbulent flow and pressure inside a pipeline.
7. Chemical concentrations varying degrees of food soil will be deposited on the equipment during production.
8. Tolerate a broad range of environmental conditions is the characteristic of ideal chemical sanitizer
9. Cleaned and sanitized equipment and utensils must be handled properly to minimize contamination of food contact surface
10. Chemicals involves the use of hot water or steam.



## What's More

### Activity 1.2

**Directions:** Below is a list of competencies in cleaning and maintaining kitchen tools, equipment and premises. Write the number in your test notebook that best represents how you feel in each of the given competencies.

**legend:**     **3 - a lot**  
                   **2 - a little**  
                   **1 - not much**

Competency	How much do I know about this?			How skilled am I in using/performing this?			How interested am I in learning more about this?		
	1	2	3	1	2	3	1	2	3
Tools and equipment used in the preparation of foods									
Use of chemicals in cleaning and sanitizing kitchen tools, equipment and working premises									
Clean and sanitize kitchen tools, equipment and premises									
Store kitchen tools and equipment in the designated place									
Kitchen premises to be cleaned									
Safety and first aid procedure									



## Learning Outcome 2

### Clean and Sanitize Kitchen Premises

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#### What is It

##### Lesson Information 2.1

Cleaning your kitchen's working premises regularly is important to keep it look its best and make it free from germs and bacteria that usually accumulate in the kitchen area during food preparations. Several surfaces around the kitchen such as walls, floors, shelves and other surfaces must always be cleaned and sanitized safely using the proper materials to reduce environmental deficiencies.

#### Procedure for disinfecting premises

- A. Preliminary cleaning is required.
- B. Apply solution to hard, non-porous surface thoroughly wetting it with cloth, mop, and sponge. Treated surface must remain wet for 10 minutes. Wipe with dry cloth.
- C. Sponge on mop or allow to air dry.
- D. Use a spray device for spray application Spray 6-8 inches from the surface, rub with a brush, sponge or cloth. Avoid inhaling sprays.
- E. Rinse all surfaces that come in contact with food such as exterior of appliances, tables and stove top with potable water before rinse.

##### Lesson Information 2.2

#### First aid procedure caused by chemical poisoning.

What to do?

- If the person has been exposed to poisonous fumes, such as carbon monoxide, get him or her into fresh air immediately.
- If the person swallowed the poison, remove anything remaining in the mouth.
- If the suspected poison is a household cleaner or other chemical, read the label and follow instructions for accident poisoning. If the product is toxic, the label will likely advise you to call the hospital/doctor.
- Follow treatment directions given by poison centers.
- If the poison is spilled on the person's clothing, remove the clothing and pour the body with continuous tap water.

Ref: First Aid, Fourth Edition, American College of Emergency Physicians

**Precaution:** Don't administer Ipecac syrup (a medicine that causes vomiting used to partially empty a person's stomach after a poison). The total facility cleaning and maintenance program of a food service department must be planned to reflect concern for sanitation as "a way of life". Facility sanitation results can be obtained

through:

- Establishing high standards
- Rigid scheduling of assignments that are clearly understood by workers
- Ongoing training
- Proper use of cleaning supplies
- Provision of proper materials and equipment to accomplish tasks, and
- Frequent meaningful inspections and performance reviews

Each of the duties on the assignment list must be explained in detail on a written work sheet or “*job breakdown*” for the employee to follow. Job breakdown includes name of the task, tools and equipment and materials to be used, and a step by step list of what to do and how to do it.

## Lesson Information 2.3

### How to Keep Your Kitchen Clean and Safe

**Here are ways to ensure the cleanliness of your kitchen and keep bacteria:**

1. **Remove unnecessary clutter from surfaces.** Discard appliances and gadgets that you don't use any more, as unused appliances would only tend to gather dust. Be sure that any appliances which are still maintained and used are stored in a safe place that is out of reach of children.
2. **Keep your refrigerator clean and tidy.** Before you do your weekly shopping, remove old and rotten food and clean shelves and racks. Look at expiration dates and be sure to label any containers of homemade food or leftovers. Don't make a habit of keeping food for too long in the fridge; rotten food will breed bacteria, and may even contaminate fresh food that is kept in the same area.
3. **Use a rubbish bin with a lid to keep odors out that attracts flies and other insects.** Empty it as soon as it smells, even if it is not yet full. You should ideally do this every day.
4. **Wash and disinfect your rubbish bin once a week.** This will ensure that any germs which might have remained even after you emptied out the rubbish will die and cannot multiply. Also, this will remove any foul smells which might be emanating from the trash bin.
5. **Use separate chopping boards for different kinds of food.** Keep separate chopping boards for your meat and your vegetables to reduce the spread of bacteria. Clean the meat chopping board extra carefully, especially after cutting chicken, as raw food has a higher tendency of containing bacteria.
6. **Change the dishcloth you wipe surfaces with every day.** Use a different cloth for surfaces than for dishes. Wash the cloth with hot water and, as appropriate, bleach. Use separate towels for hands and dishes, and change both of those regularly, too.
7. **Use a paper towel for any mess that is particularly likely to cause contamination, such as raw meat or eggs, and anything that has fallen on the floor.** It is better to use cleaning material that you can easily throw out after and



prevent from contaminating other food, instead of using towels or sponges which you would still be likely to use again afterwards.

**8. Keep kitchen floors free from debris and grease by sweeping and washing regularly.** If something has spilled, make sure to mop it right away instead of letting the mess stay there. Aside from making sure that germs do not use the spillage as a breeding ground, immediate mopping would also prevent unwanted accidents such as slipping from occurring.

**9. Don't leave dirty crockery and pans to fester where they can attract harmful bacteria.** Wash dishes with hot water and soap as soon as you're done using them.

**10. Wash surfaces that get touched.** Periodically wipe doorknobs, handles, buttons and controls, and light switches in and around your kitchen with cleaning agents. Even if they seem clean to the naked eye, they may already be harboring bacteria.

**11. Wash your hands before handling food** and again if you sneeze or cough, blow your nose, go to the bathroom, or touch high-use surfaces.

### **Safety measures**

The following are safety measures that you should do when using cleaning agents:

1. Ensure adequate ventilation
2. Have knowledge of basic first aid
3. Wear cotton clothing to cover your limbs and other parts of your body that might be exposed to the cleaning agent.
4. Wear suitable footwear—it should be closed in and have a steel toe
5. Wear industrial strength, thick plastic or rubber gloves
6. Wear protective eye and face wear

### **Storage and security of chemicals**

The following are recommendations for the storage and security of chemicals and cleaning agents:

1. Keep them in a separate area, away from food and other products
2. Keep on lower shelves to prevent accidents and to keep chemicals from falling into food products
3. Store in a cool, well-lit and well ventilated room
4. Do not store near heat
5. Do not keep punctured aerosol cans
6. Store chemicals with lids tightly on
7. Make sure chemicals and other cleaning agents are clearly labelled, specifying their content and use
8. Ensure that the use by date or manufactured date is clearly readable
9. Storage containers should be free of corrosion and moisture
10. The storage area should be kept secure and locked when not in use
11. Always store chemicals in designated container
12. Do not mix chemicals



## What I Have Learned

### Self-check 2.1

#### Enumeration

##### a. Chemical Sanitizers and Disinfectants

- |          |          |
|----------|----------|
| 1. _____ | 5. _____ |
| 2. _____ | 6. _____ |
| 3. _____ | 7. _____ |
| 4. _____ | 8. _____ |

##### b. Heat Sanitizer Sanitizers and Disinfectants

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

**Now it's your turn!**



## What I Can Do

### Activity 1.3

Situation: You were tasked to help your sister in the preparation and cooking of foods particularly in cleaning, sanitizing and storing of the tools and equipment after using them.

Note: Do not forget to take videos, photos and narrative of your activity for your portfolio.

#### Materials Needed:

- Dish soap
- Hot water
- Double sink or dishpan
- Dishcloths, scrubbers, sponges, steel wool
- Dish rack for drying
- Lint-free cloth for silverware
- Paper towels to dry pots and pans

**Your performance will be rated using the following rubric:**

Dimension	P E R F O R M A N C E L E V E L					
	Excellent (4 pts.)	Very Satisfactory (3 pts.)	Satisfactory (2 pts.)	Needs Improvement (1 pt.)	No Attempt (0 pt.)	Points Earned
1. Use of tools and equipment	Uses tools and equipment correctly and confidently at all times	Uses tools and equipment correctly and confidently most of the times	Uses tools and equipment correctly and but less confidently sometimes	Uses tools and equipment incorrectly and less confidently most of the time	No attempt	
2. Application of procedures	Manifests very clear understanding of the step- by- step procedure	Manifests clear understanding of the step- by- step procedure	Manifests understanding of the step-by- step procedure but sometimes seeks clarification	Manifests less understanding of the step- by- step procedure seeking clarification most of the time	No attempt	
	Works independently with ease and confidence at all times	Works independently with ease and confidence most of the time	Works independently with ease and confidence sometimes	Works independently but with assistance from others most of the time	No attempt	
3. Safety work habits	Observes safety precautions at all times	Observes safety precautions most of the time	Observes safety precautions sometimes	Most of the time not observing safety precautions	No attempt	
4. Completeness of Task	Task is completed following the procedures in the activity improvement/in novations	Task is completed following the procedures in the project plan	Task is nearly completed following the procedures in the project plan	Task is started but not completed following the procedures in the project plan	No attempt	
5. Time management	Work completed ahead of time	Work completed within allotted time	Work completed ____ (min./hours /days) beyond	Work completed ____ (min./hours/ days) beyond	No attempt	
TOTAL POINTS						

**Congratulations! You did very well!**



## Post Test

Direction: Multiple Choice. Read the following statements carefully. Choose the letter that best describes the statement. Write your answer on your test notebook.

1. Which of the following is a material used for salad making and dessert that need great care to ensure long shelf life?
  - A. double boiler
  - B. teflon
  - C. glass
  - D. stainless steel
2. A special coating applied inside aluminum or steel pots and pans that prevents food from sticking to it.
  - A. double boiler
  - B. teflon
  - C. glass
  - D. stainless steel
3. Ana finds it hard to remove tough soils from the used pots and pans. It does not respond to the different cleaning agents that she has used. If you will help her, which of the following will you recommend that will surely solve her problem?
  - A. abrasive
  - B. acid cleaner
  - C. detergent
  - D. solvent cleaner
4. The following are ways how to take care of glass kitchen tools, EXCEPT;
  - A. To remove stain, use 2 table spoon of liquid bleach per cup of water when soaking and cleaning.
  - B. Use a nylon scrub.
  - C. Scratch it with sharp instrument such as knife or fork
  - D. Use baking soda to remove grease crust and boiled vinegar as final rinse.
5. These are the factors that influence the cleaning process, EXCEPT;
  - A. Time
  - B. Soil
  - C. Temperature
  - D. Sanitize
6. Which of the following situations is good housekeeping practice best shown?
  - A. Emptying the garbage can every other day.
  - B. Using imported sanitizing and disinfecting materials

- C. Spraying air freshener before and after leaving the room.
  - D. Planning and implementing a program of regular cleaning of fixtures, furniture and home appliances
7. Which of the following knife is used for trimming and paring fruits and vegetables?
- A. butcher knife
  - B. French knife
  - C. paring knife
  - D. shears
8. If the person has been exposed to poisonous fumes such as carbon monoxide, what will you do?
- A. give him water to drink
  - B. remove anything in the mouth
  - C. give him cloth to cover his mouth
  - D. get him or her into fresh air immediately
9. Your younger sister accidentally swallowed poison. What first aid treatment should you do?
- A. Read the label of the poisonous material.
  - B. Remove anything remaining in the mouth.
  - C. Give her a glass of water or any fruit juice.
  - D. Give her a spoonful of sugar or any kind of sweets.
10. Which of the following is the proper steps of washing with the dishwasher machine?
- 1. Add detergent.
  - 2. Fill your dishwasher logically
  - 3. Don't crowd the dishes.
  - 4. Turn it on.
- A. 4 3 2 1      B. 2 3 1 4      C. 3 2 1 4      D. 1 2 3 4
11. The following are the first aid procedure caused by chemical poisoning; EXCEPT:
- A. If the person swallowed the poison, remove anything remaining in the mouth.
  - B. Follow treatment directions given by poison centers.
  - C. If the person has been exposed to poisonous fumes, such as carbon monoxide, get him or her into fresh air immediately.
  - D. If the suspected poison is a household cleaner or other chemical, let the person drink milk and sugar.
12. Remove unnecessary clutter from surfaces means,
- A. To ensure that any germs will not remained
  - B. To discard appliances and gadgets that you don't use any more
  - C. To remove any foul smells
  - D. To avoid accidents

13. Use separate chopping boards for different kinds of food to reduce the spread of?
- A. Germs
  - B. Bacteria
  - C. Virus
  - D. Infections
14. Mila are asked to disinfect their kitchen. She must do the following procedures for disinfecting; EXCEPT?
- A. Preliminary cleaning
  - B. Use hand towel to wipe all surfaces including the floor.
  - C. Rinse all surfaces that come in contact with food such as exterior of appliances, tables and stove top with potable water before rinse.
  - D. Use a spray device for spray application Spray 6-8 inches from the surface, rub with a brush, sponge or cloth
15. This is done using heat, radiation, or chemicals.
- A. Cleaning
  - B. Rinsing
  - C. Sanitizing
  - D. Washing

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## Answer Keys

### LO1

#### Self-check 1.1

A. True or False	1. True
	2. True
	3. False
	4. True
	5. False
	6. True
	7. False
	8. True
	9. True
	10. False

### LO2

#### Self-check 2.1

a. Chemical	A. chlorine
	B. carbolic acid
	C. ammonia
	D. detergents
	E. dishwashing liquid
	F. timsen
	G. soap
	H. alcohol
	I. boric acid
b. Heat Sanitizer	A. Hot water
	B. Steam
	C. Dry heat
	D. UV light (ultraviolet light)
	E. Filtration

### Pre-test/Post Test

1. C
2. B
3. A
4. C
5. D
6. D
7. C
8. D
9. B
10. B
11. D
12. B
13. B
14. B
15. C