

Technology and Livelihood Education

Home Economics - Cookery

Quarter 0-Module 2

Kitchen Tools, Equipment, and Paraphernalia Maintenance



TLE Cookery– Grade 8
Alternative Delivery Mode
Quarter 0 – Module 2: Kitchen Tools, Equipment, and Paraphernalia Maintenance
First Edition, 2020

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**Technology and
Livelihood Education
Home Economics - Cookery
Quarter 0 -Module 2
Kitchen Tools, Equipment, and
Paraphernalia Maintenance**

Introductory Message

This Self-Learning Module (SLM) is prepared so that you, our dear learners, can continue your studies and learn while at home. Activities, questions, directions, exercises, and discussions are carefully stated for you to understand each lesson.

Each SLM is composed of different parts. Each part shall guide you step-by-step as you discover and understand the lesson prepared for you.

Pre-tests are provided to measure your prior knowledge on lessons in each SLM. This will tell you if you need to proceed on completing this module or if you need to ask your facilitator or your teacher's assistance for better understanding of the lesson. At the end of each module, you need to answer the post-test to self-check your learning. Answer keys are provided for each activity and test. We trust that you will be honest in using these.

In addition to the material in the main text, Notes to the Teacher are also provided to our facilitators and parents for strategies and reminders on how they can best help you on your home-based learning.

Please use this module with care. Do not put unnecessary marks on any part of this SLM. Use a separate sheet of paper in answering the exercises and tests. And read the instructions carefully before performing each task.

If you have any questions in using this SLM or any difficulty in answering the tasks in this module, do not hesitate to consult your teacher or facilitator.

Thank you.



What I Need to Know

This module was designed and written with you in mind. It is here to help you master of Maintenance Kitchen Tools, Equipment, and Paraphernalia. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course.

The module consists:

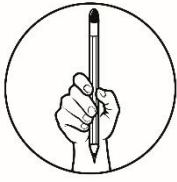
L.O 2: Maintain appropriate kitchen tools, equipment, and paraphernalia
(TLE_HECK7/8MT-Ob-2)

After going through this module, you are expected to:

2.1 select various types of chemicals for cleaning and sanitizing kitchen tools, equipment, and paraphernalia.

2.2 clean and sanitize kitchen tools and equipment following manufacturer's instructions, use cleaning tools, equipment and paraphernalia in accordance to standard operating procedure and maintain kitchen tools equipment and work areas.

2.3 appreciate the importance of proper maintenance of kitchen tools, equipment, and paraphernalia.



What I Know

Directions: Choose the letter of the best answer. Write the chosen letter in your activity notebook.

1. It is the process of removing soiled foods from the surfaces.
 - A. storing
 - B. washing
 - C. cleaning
 - D. sanitizing

2. It is used to remove heavy accumulations of soil that are hard to remove with detergents, solvents and acids.
 - A. detergent
 - B. acid cleaner
 - C. solvent cleaner
 - D. abrasive cleaners

3. A cleaning agent used to remove grease from surfaces.
 - A. detergent
 - B. acid cleaner
 - C. solvent cleaner
 - D. abrasive cleaners

4. A substance that is being used in cleaning or removing dirt.
 - A. chlorine
 - B. ammonium
 - C. cleaning agent
 - D. sanitizing agent

5. These are cleaning agents used to wash tableware, surfaces and equipment.
 - A. detergent
 - B. acid cleaner
 - C. solvent cleaner
 - D. abrasive cleaners

6. Type of acid cleaners that remove rust, blemishes from vinyl, stone and linoleum surfaces.
 - A. oxalic acid
 - B. sulfamic acid
 - C. muriatic acid
 - D. phosphoric acid

7. It is a very corrosive acid that can cause damage, thus used with caution.
 - A. oxalic acid
 - B. muriatic acid
 - C. sulfamic acid
 - D. phosphoric acid

8. It can remove dried cement from masonry.
- A. oxalic acid
 - B. muriatic acid
 - C. sulfamic acid
 - D. phosphoric acid
9. It's weak acid that is used for cleaning.
- A. oxalic acid
 - B. muriatic acid
 - C. sulfamic acid
 - D. phosphoric acid
10. It contains more surfactants and softer abrasives than powdered cleansers.
- A. dry abrasives
 - B. wet abrasives
 - C. abrasive tools
 - D. disinfecting abrasives
10. Abrasive that contains antimicrobial chemicals and used to disinfect surfaces.
- A. dry abrasives
 - B. wet abrasives
 - C. abrasive tools
 - D. disinfecting abrasives
12. All are cleaning agents except one.
- A. detergent
 - B. acid cleaners
 - C. muriatic acid
 - D. solvent cleaners
13. Liza found out that there was burnt food on the top surface of gas range. What cleaning agent should Liza use?
- A. detergent
 - B. acid cleaners
 - C. solvent cleaners
 - D. abrasive cleaners
14. Which of the following is an abrasive tool?
- A. towel
 - B. gloves
 - C. steel wool
 - D. dish cloth
15. Below are the types of abrasive cleaners except one.
- A. oxalic acid
 - B. formic acid
 - C. muriatic acid
 - D. sulfamic acid

Lesson

1

Types of Chemicals for Cleaning and Sanitizing Kitchen Tools, Equipment, and Paraphernalia



What's In

In the previous module, you have learned the function of different kitchen tools, equipment, and paraphernalia. Now, let us determine how much you have learned about the topic.

Directions: Match column **A** to column **B**. Write the letter of the correct answer in your activity notebook.

A

1. Used in trimming of the fins and tail of the fish and that can also be used in cutting large items like sotanghon noodles.
2. It is used to remove dirt or lumps from dry ingredients, also used to combine dry ingredients and extract milk from desiccated coconut.
3. It is an equipment with a low temperature internal atmosphere intended for storing semi-perishable foods like eggs, fruits, vegetables, milk, butter, cheese and leftovers.
4. A kitchen utensil used primarily to measure the volume of liquid or bulk of solid cooking ingredients such as flour and sugar
5. A big spoon made of wood used in creaming fat and mixing and stirring food.

B

- A. Measuring cups
- B. Kitchen shears
- C. Wooden spoon
- D. Refrigerator
- E. Strainer

You are done. Now, how are you going to clean above the kitchen tools and equipment?



What's New

Activity 1

Direction: Answer the question

1. What are the cleaning agents you usually used to home in washing your dishes and other kitchen tools?

Activity 2

Directions: Read the statement clue in each item. Identify the word being described by putting the correct letters in the box. Write the answer in your activity notebook.

1. It is used to wash tableware surfaces and equipment.

D		T		R		E		T
---	--	---	--	---	--	---	--	---

2. An agent commonly referred to as degreasers used on surfaces where grease has burned.

S		L	V		N	
---	--	---	---	--	---	--

3. It is used to remove heavy accumulations of soil that are hard to remove.

A		R		S		V	
---	--	---	--	---	--	---	--

4. The process of removing food residues from the tableware and other kitchen tools.

C	L		A		I		G
---	---	--	---	--	---	--	---

5. It is used to remove mineral deposits and other soils that another agent cannot eliminate.

A			D
---	--	--	---



What is It

Kitchen is the place where food preparation, food storage and clean up stations can be found. It is where kitchen tools and equipment are being placed that needs proper care and maintenance.

Every individual should follow the proper cleaning and use of sanitizing chemicals to ensure that kitchen tools and equipment will be properly cleaned and maintained. It should always be the priority of the owner/manager of a particular establishment to maintain the cleanliness of the kitchen tools and equipment.

Cleaning is a process of removing soil and preventing accumulation of food residues to the plates, glasses, and other kitchen tools and equipment. It is done with a cleaning agent that removes food, remaining foods or other substances. The right cleaning agents must be selected because not all cleaning agents can be used on food-contact surfaces.

Cleaning agents are substances usually liquids, powders, sprays, or granules used to remove dirt, including dust, stains, bad smells, and clutter on surfaces.

Here are the four categories of cleaning agents

1. Detergents. These are cleaning agents used to wash tableware surfaces, and equipment. Examples: soap, soap powders, cleaners
2. Solvent cleaners. It is commonly referred as agent that remove grease from surfaces. Oven and grills are examples of areas that need frequent degreasing. These products are alkaline based and are formulated to dissolve grease.
3. Acid cleaners. It is used periodically used in removing mineral deposits and other soils that detergents cannot eliminate. For our convenience in cleaning the different surfaces at home we used to buy acid cleaners. But, consider the harmful effect and it is your duty to choose the right one which will suit to your needs.

Various types of acid cleaners

1. Phosphoric acid-slightly weaker and is useful for cleaning concrete, porcelain and ceramic surface. It is harmful for your limestone, marble and granite surface.
2. Oxalic Acid-It works as a rust remover. It also removes blemishes from vinyl, stone and linoleum surfaces.

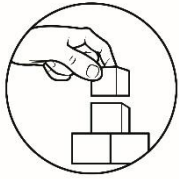
3. Sulfamic acid-for ceramic and metal cleaning purpose. It can remove dried cement from masonry and concrete.
 4. Muriatic acid. It used with caution because this is very corrosive that can cause damaged. It can be used in cleaning the floors and walls of the swimming pool and toilets.
4. Abrasives. It is 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.

They are mechanical cleaners or materials that wear off dirt, stain and tarnish by rubbing. They are composed of either particles or physical abrasives such as sandpaper, steel wool and scrubbing pads. Finer particles are less abrasive. Coarser particles are more abrasive. Baking soda and salt can be used as abrasives.

Four types of abrasive cleaners

1. Dry abrasives: Powdered cleansers
A powdered cleanser that has a cleaning and polishing action because of the fine particles of calcite, feldspar, quartz and silica. It also contains a small amount –of surfactants for removing oily soils.
Surfactants –comes from the word surface-active agent
2. Wet abrasives: Liquid cleaners
It contains more surfactants and softer abrasives than powdered cleansers.
3. Abrasive tools
Scouring pads, steel wool pad, and sponges are commonly used as abrasive tools.
4. Disinfecting abrasives
Some abrasive cleaners contain antimicrobial chemicals and used to disinfect surfaces.

Cleaning agents must be properly used. Make it sure to follow the manufacturer's instruction for effective result and to avoid misused.



What's More

Activity 1

Direction: List down examples on different cleaning agents that usually used in your home.

Detergents	Solvent Cleaners	Acid Cleaners	Abrasive Cleaners

Activity 2

Directions: Write true if the statement is correct and false if it is wrong.

- _____ 1. Powdered cleansers contain more surfactants.
- _____ 2. Oxalic acid is used for ceramic and metal cleaning purposes
- _____ 3. Detergent is used to remove grease from surfaces.
- _____ 4. Abrasive is used to remove heavy accumulations of soil that difficult to remove with detergents, solvents and acids.
- _____ 5. Disinfecting abrasives used to remove mineral deposits and other soils that detergents cannot eliminate.

Activity 3

Directions: Match column **A** with column **B**. Write your answer in your activity notebook.

A

1. It is used to wash tableware surfaces and equipment
2. It is used to remove mineral deposits and other soil that detergent cannot eliminate
3. It removes food, remaining foods or other substances.

B

- A. detergents
- B. abrasive cleaners
- C. acid cleaners

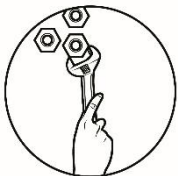
- | | |
|--|---------------------|
| 4. Mechanical cleaners/materials that wear off dirt by rubbing | D. cleaning |
| 5. It is the process of removing soiled foods from surfaces | E. solvent cleaners |
| 6. It is also called degreasers | F. cleaning agents |



What I Have Learned

Directions: Fill in the blank with the correct word or group of words. Write your answer in the activity notebook.

- Cleaning is the process of removing soil and preventing the _____ of food residues to the plates, glasses, and other kitchen tools and equipment.
- _____ are cleaning agents used to wash tableware surfaces, and equipment.
- Solvent cleaners remove _____ from surfaces.
- _____ is used to in removing mineral deposits and other soils that detergents cannot eliminate.
- Abrasive is used to _____ heavy accumulations of soil that are difficult to remove with detergents, solvents, and acid.
- _____ is harmful to your limestone, marble, and granite surface
- The common abrasive tools are scouring pads, _____, and sponges.
- Oxalic acid works as a ___remover.
- Dry abrasives contain a small amount of _____ for removing oily soils.
- Cleaning _____ must be properly used.



What I Can Do

Direction: Draw at least one example for each category of cleaning agent.

Detergent	
Abrasive cleaners	
Solvent cleaners	
Acid cleaners	



Additional Activities

Directions: Make a survey of the most common chemicals used for cleaning and sanitizing among the restaurants/carenderias in the place. Write your findings if it is safe or not in your activity notebook.

Name of Restaurant	Cleaning and sanitizing Agent	Findings
1.		
2.		
3.		
4.		
5.		
6.		

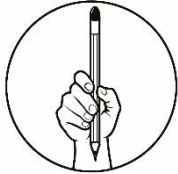


Assessment

Direction: Read the following statements carefully then choose the correct answer from the given choices. Write the chosen letter in your activity notebook.

1. Abrasive that contains antimicrobial chemicals and used to disinfect surfaces.
 - A. dry abrasives
 - B. wet abrasives
 - C. abrasive tools
 - D. disinfecting abrasives
2. Which of the following is an abrasive tool.
 - A. towel
 - B. gloves
 - C. steel wool
 - D. dish cloth
3. It is the process of removing soiled foods from the surfaces.
 - A. storing
 - B. washing
 - C. cleaning
 - D. sanitizing
4. It is used to remove heavy accumulations of soil that are hard to remove with detergents, solvents and acids
 - A. detergent
 - B. acid cleaner
 - C. solvent cleaner
 - D. abrasive cleaners
5. A substance that is being used in cleaning or removing dirt.
 - A. chlorine
 - B. ammonium
 - C. cleaning agent
 - D. sanitizing agent
6. It is very corrosive acid that can cause damage, thus used with caution.
 - A. oxalic acid
 - B. muriatic acid
 - C. sulfamic acid
 - D. phosphoric acid
7. All are cleaning agents except one.
 - A. detergent
 - B. acid cleaners
 - C. muriatic acid
 - D. solvent cleaners

8. It contains more surfactants and softer abrasives than powdered cleansers.
- A. dry abrasives
 - B. wet abrasives
 - C. abrasive tools
 - D. disinfecting tools
9. Liza found out that there was burnt food on the top surface of gas range. What cleaning agent should Liza use?
- A. detergent
 - B. acid cleaners
 - C. solvent cleaners
 - D. abrasive cleaners
10. It can remove dried cement from masonry.
- A. oxalic acid
 - B. muriatic acid
 - C. sulfamic acid
 - D. phosphoric acid
11. It is weak acid that is used for cleaning.
- A. oxalic acid
 - B. muriatic acid
 - C. sulfamic acid
 - D. phosphoric acid
12. A cleaning agent used to remove grease from surfaces.
- A. detergent
 - B. acid cleaner
 - C. solvent cleaner
 - D. abrasive cleaners
13. These are cleaning agents used for tableware, surfaces, and equipment.
- A. detergent
 - B. acid cleaner
 - C. solvent cleaner
 - D. abrasive cleaners
14. Type of acid cleaners that remove rust, blemishes from vinyl, stone and linoleum surfaces.
- A. oxalic acid
 - B. sulfamic acid
 - C. muriatic acid
 - D. phosphoric acid
15. Below are the types of abrasive cleaners except one.
- A. oxalic acid
 - B. formic acid
 - C. muriatic acid
 - D. sulfamic acid

Lesson**2****Cleaning and Sanitizing
Kitchen Tools, Equipment and
Paraphernalia*****What I Know***

Direction: Choose the letter of the best answer. Write the chosen letter in your activity notebook.

1. It is the process of killing pathogens and other microorganisms by using heat or chemicals.
 - A. storing
 - B. washing
 - C. cleaning
 - D. sanitizing
2. The last step in cleaning operation
 - A. dry
 - B. rinse
 - C. sanitize
 - D. pre-wash
3. The removal of gross food before applying the cleaning solution.
 - A. wash
 - B. rinse
 - C. air dry
 - D. pre-wash
4. The following are sanitizing agent except one,
 - A. iodine
 - B. sulfur
 - C. chlorine
 - D. quaternary ammonium compound
5. Which of the following is the correct order of cleaning and sanitizing a surface?
 - A. scrape, wash, rinse, sanitize, air dry
 - B. rinse, scrape, wash, air, dry, sanitize
 - C. scrape, air dry, sanitize, rinse, and wash
 - D. wash, rinse, air dry, sanitize, sanitize, air dry

6. This involves the use of hot water or steam.
 - A. chemicals
 - B. temperature
 - C. concentration
 - D. thermal sanitizing

7. The presence of too little sanitizer will result in an adequate reduction of harmful microorganisms.
 - A. chemicals
 - B. temperature
 - C. concentration
 - D. thermal sanitizing

8. Chemical sanitizers work best in water when it is _____.
 - A. between 60-degree Fahrenheit and 120 degree Fahrenheit
 - B. between 55-degree Fahrenheit and 130 degree Fahrenheit
 - C. between 55-degree Fahrenheit and 120 degree Fahrenheit
 - D. between 65-degree Fahrenheit and 130 degree Fahrenheit

9. This is effective against a wide variety of microorganisms.
 - A. iodine
 - B. sulphur
 - C. chlorine
 - D. quaternary ammonium compounds

10. It is slow acting at pH 7.0 above, vaporizes at 120-degree Fahrenheit.
 - A. iodine
 - B. sulphur
 - C. chlorine
 - D. quaternary ammonium compounds

11. This is used in chopping to prevent knife from dulling.
 - A. pans
 - B. spatulas
 - C. wooden spoon
 - D. cutting board

12. Below are the factors to be considered in sanitizing except one.
 - A. chemicals
 - B. temperature
 - C. time contact
 - D. concentration

13. The application of cleaning compound
 - A. wash
 - B. rinse
 - C. sanitize
 - D. pre-wash

14. The cleaned item must be sanitized for the recommended length of time.
- A. chemicals
 - B. temperature
 - C. time contact
 - D. concentration
15. A non-corrosive, non-irritating, no taste or odor used in dilutions.
- A. iodine
 - B. sulphur
 - C. chlorine
 - D. quaternary ammonium compounds



What's In

Congrats you have done your Lesson 1. This time recall what you have learned from the previous topics.

Directions: Read the statement carefully. Write agree when the statement is correct and disagree if it is wrong.

1. Oven and grills are examples of equipment that need frequent degreasing.	
2. Abrasives are products that must be carefully handled to avoid damage to the surface being cleaned.	
3. The right cleaning agents must be selected because not all can be used on food-contact surfaces.	
4. Sanitizing agents are substances usually liquids, powders, sprays, or granules used to remove dirt, including dust, stains, bad smells, and clutter on surfaces.	
5. In using cleaning agents, follow the manufacturer's instruction for effective result.	

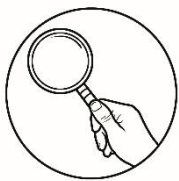


What's New

Kim is assigned to clean the used casseroles in the laboratory, and you are asked to help her. What will you do?

Directions: Below are the common steps. Decide which of these comes first by writing 1 for the first step, 2 for the second step and so on down to the last. Write the answers in your activity notebook.

- _____ A. Wipe with clean towel and dry.
- _____ B. Wash with detergent.
- _____ C. Remove gross foods from the casseroles.
- _____ D. Rinse it thoroughly.



What is It

The Cleaning Operation

There are five steps involved in cleaning and sanitizing whether it is done manually or by machine. These steps must be done to avoid cross-contamination between surfaces and food.

1. Prewash – the removal of gross food before applying the cleaning solution
2. Wash – the application of cleaning compound
3. Rinse – the removal of all traces of the cleaning solution with clean potable water
4. Sanitize – the kitchen utensils, tools and equipment must be sanitized using either heat or chemicals
5. Air dry- drying dishes without motivating the growth of bacteria.

Tips in washing the dishes

1. Soak stubborn food deposits for cleaning up the pots and pans.
2. Use good sponge.
3. Wash your dishes from the least greasy and the least dirty to the greasiest and dirtiest.
 - Wash your glassware and any drinking vessels

- Cutlery-knives, fork, spoons
 - Plates and bowls
 - Pots and pans
4. Drain and refill the water if needed, if you notice it getting greasy.

Cleaning the kitchen

Consider the following;

1. Empty dishwashers/sink and dish drainer, as necessary.
2. Wash dirty dishes as they happen.
3. Wipe spills from counters, floors and appliances.
4. Clean counters.
5. Sweep floor.
6. Set out clean rag for the next day.
7. Clean outside of electric kitchen appliances.

Sanitizing -is the process of reducing the number of microorganisms on that clean surface to safer level.

It is done using heat, radiation, or chemicals. Heat and chemicals are commonly used as method for sanitizing in a restaurant than radiation. Wash properly kitchen tools before it can be properly sanitized.

Here are the 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.
2. Chemicals. Approved chemical sanitizers are chlorine, iodine and quaternary ammonium.

The factors that must be considered are:

1. Concentration. The presence of too little sanitizer will result in an inadequate reduction of harmful microorganisms. Too much can be toxic.
2. Temperature. Generally, chemical sanitizers work best in water that is between 55-degree Fahrenheit and 120-degree Fahrenheit.
3. Contact time. The cleaned item must be in contact with the sanitizer for the recommended length of item.

Sanitizing Testing

Every food establishment must have the appropriate testing kit to measure chemical sanitizer concentrations. Use the proper test kit for accurate testing of the strength of a sanitizing solution. The suitable test kit must then be used throughout the day to measure chemical sanitizer concentration.

Advantages and disadvantages of Chemical Sanitizers

Chemical	Advantages	Disadvantages
Chlorine	Effective against a wide variety of microorganisms. Not affected by water hardness Non-staining Concentration easily measured by field tests Generally inexpensive	Corrosive Irritating to skin Short shelf life
Iodine	Non-corrosive and non-irritation to skin Rapid bacterial action in acid pH range in cold or hard water	Slow acting at pH 7.0 above, vaporizes at 120-degree Fahrenheit Relatively expensive
Quaternary Ammonium Compounds	Non-corrosive Non-irritating to skin No taste or odor in use dilutions	Not compatible with some detergents and hard water Relatively expensive

Maintenance of Kitchen Tools and Equipment

For a long term of use of kitchen tools and equipment, proper maintenance must be considered. There are ways and tips to follow:

1. Wooden spoons, cutting boards and bowls require hand washing. Wash wooden tools with warm soapy water and then thoroughly rinse and wipe dry.
2. Knives
Use cutting board when chopping to prevent knife blade from dulling. Wash knives in hot soapy water. You can dry stainless steel knives, but not carbon steel because it will quickly rust. Dry knives after washing and rinsing. Sharpen knives as soon as they become dull.
3. Plastic tools, including spoons, spatulas and microwave oven wares are usually dishwasher safe, but always check with the manufacture first. Hand wash the plastic tools in a soapy water. Avoid harsh abrasives, which can scratch plastic surfaces.
4. Broilers
Empty grease pan. Remove grids and scrub them with soft wire brush with detergent and water in the pot sink. Thoroughly wash and dry.

5. Stoves/ ranges

Keep the stovetops clean this will help transfer the heat to the cookware. The more accumulated debris, the harder it is for the stove to heat the food and the more energy will be required to do the job.

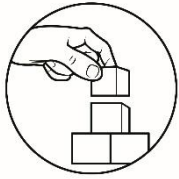
6. Iron pots, pans and utensils

Wash with soap and water, using a stiff brush or steel wool. If there is rust present, wipe items with an oil-saturated cloth or a commercial rust remover. If using commercial remover, be sure to follow the label instructions.

7. Disinfect the sink and clean faucets.

Tips in keeping the kitchen clean and safe

1. Clean up after meal. Clean food and dishes after each meal.
 - Clear the table
 - Transfer the leftovers to airtight containers and store them in the refrigerator or freezer
 - Wash, dry, and put away all the dishes
2. Clean spills when it happens.
 - Clean up excess liquids or sauces with a cloth.
 - Spray the area with an all-purpose cleaner and wipe it dry.
 - When it spills involve meat, use disinfecting spray to clean the mess to prevent the spread of bacteria.
3. Clean your garbage disposal regularly.
4. Clean the refrigerator and freezer.
 - The refrigerator is where you keep most of your food, so it is important for both safety and cleanliness to keep this appliance clean.
5. Sweep the floor daily.
 - Sweeping regularly around the whole house will help minimize dust
6. Wash the floor weekly.



What's More

Activity 1

Directions: Modified True or False. If the statement is true write T and F if it is false, change the word/words in the statement to make it correct.

1. Use good sponge in washing dishes.
2. Wash your dishes from most greasy and most dirty to the least greasy and the least dirty.
3. Wipe spills from counter, floors and electric kitchen appliances.
4. Chlorine a chemical that is effective against a wide variety of microorganisms.
5. Soak stubborn food deposits for cleaning up the pots and pans.

Activity 2

Directions: Collect at least five pictures of kitchen tools. Paste it on a bond paper and write each proper maintenance based on manufacturer's instructions.



What I Have Learned

Activity 1

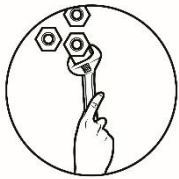
Directions: Fill in the blanks with correct answer. Write the answer in your activity notebook.

1. Cleaning operation starts by pre-wash, _____, rinse, _____ and _____.
2. Sanitizing is done using _____ and _____.
3. The approved chemical sanitizers are _____, _____, and _____.
4. Cleaning is the process of _____ food residues/ splatters on surfaces.
5. Every food establishment must have the appropriate testing kit to measure chemical sanitizer _____.

Activity 2

Direction: Place a (✓) if the statement is correct, (X) if it is wrong. Write the answer in your activity notebook.

- ___ 1. Keep the stove tops clean this will help transfer the heat to the cook ware.
- ___ 2. Use cutting board when chopping to prevent knife blade from dulling.
- ___ 3. Do not disinfect the sink and faucet.
- ___ 4. Wooden spoons, cutting boards and bowls does not require hand washing.
- ___ 5. Wash the kitchen tools with soap and water.



What I Can Do

Activity 1

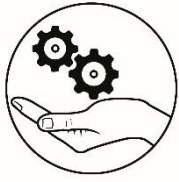
Directions: Arrange the following steps in cleaning and sanitizing stationery equipment by writing 1 for the first step, 2 for the second step and so on down to the last. Write the answers in your activity notebook.

- ___ A. Allow the surfaces to air dry.
- ___ B. Unplug the equipment.
- ___ C. Sanitize the equipment surface.
- ___ D. Wash the equipment surfaces.
- ___ E. Rinse the equipment surfaces with clean water.

Activity 2

Directions: Look for a kitchen tool or equipment that is available at home. Demonstrate the proper cleaning and sanitizing by following manufacturer's instructions. Read the procedures aloud upon doing it. Request someone who can take the video for your performance. Send it through fb or email. Below is the rubric to be used in giving a score.

Criteria	Score
Following the instructions	
Complete and correct	20
Missed one procedure	19
Missed 2 to 3 procedures	17
Not at all	10



Additional Activities

Activity 1

Make a cleaning activity checklist of your kitchen. Write it in your activity notebook.

Time	Date/day	Activity	Remarks

Activity 2

Directions: Answer the question below.

1. Write at least three reasons on why it is important to maintain tools and equipment?

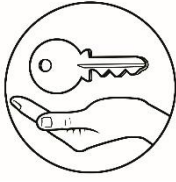


Assessment

Direction: Read the following statements carefully then choose the correct answer from the given choices.

1. This is used in chopping to prevent knife from dulling.
 - A. pans
 - B. spatulas
 - C. wooden spoon
 - D. cutting board
2. The application of cleaning compound
 - A. wash
 - B. rinse
 - C. sanitize
 - D. prewash
3. This involves the use of hot water or steam.
 - A. chemicals
 - B. temperature
 - C. concentration
 - D. thermal sanitizing
4. The removal of gross food before applying the cleaning solution.
 - A. wash
 - B. rinse
 - C. air dry
 - D. pre-wash
5. The last step in cleaning operation
 - A. drying
 - B. rinsing
 - C. sanitizing
 - D. prewashing
6. It is the process of killing pathogens and other microorganisms by using heat or chemicals.
 - A. storing
 - B. washing
 - C. cleaning
 - D. sanitizing
7. It is a slow acting at p.h 7.0 above, vaporizes at 120-degree Fahrenheit.
 - A. iodine
 - B. sulphur
 - C. chlorine
 - D. quaternary ammonium compound

8. The cleaned item must be sanitized for the recommended length of time.
 - A. chemicals
 - B. temperature
 - C. time contact
 - D. concentration
9. A non –corrosive, non –irritating, no taste or odor use in dilutions.
 - A. iodine
 - B. sulfur
 - C. chlorine
 - D. quaternary ammonium compounds
10. The presence of too little sanitizer will result in an adequate reduction of harmful microorganisms.
 - A. chemicals
 - B. temperature
 - C. concentration
 - D. thermal sanitizing
11. This is effective against a wide variety of microorganisms.
 - A. iodine
 - B. sulfur
 - C. chlorine
 - D. quaternary ammonium compounds
12. Chemical sanitizers work best in water when it is _____.
 - A. between 60 degree Fahrenheit and 120 degree Fahrenheit
 - B. between 55 degree Fahrenheit and 130 degree Fahrenheit
 - C. between 55 degree Fahrenheit and 120 degree Fahrenheit
 - D. between 65 degree Fahrenheit and 130 degree Fahrenheit
13. The following are sanitizing agent except one
 - A. iodine
 - B. sulfur
 - C. chlorine
 - D. quaternary ammonium compound
14. Below are the factors to be considered in sanitizing except one.
 - A. chemicals
 - B. temperature
 - C. time contact
 - D. concentration
15. Which of the following is the correct order of cleaning and sanitizing a surface?
 - A. scrape, wash, rinse, sanitize, air dry
 - B. rinse, scrape, wash, air, dry, sanitize
 - C. scrape, air dry, sanitize, rinse, and wash
 - D. wash, rinse, air dry, sanitize, sanitize, air dry



Answer Key

Lesson 1

<p>What I Know</p> <p>1. D 2. A 3. D 4. B 5. A 6. D 7. C 8. C 9. C 10. A 11. D 12. A 13. A 14. C 15. D</p>	<p>What's In</p> <p>1. agree 2. agree 3. agree 4. disagree 5. agree</p> <p>What's New</p> <p>Activity 1</p> <p>4. A 2. B 1. C 3. D</p>	<p>What's More</p> <p>1. T 2. F 3. T 4. T 5. T</p> <p>What I Can Do</p> <p>5. A 1. B 4. C 2. D 3. E</p>	<p>What I Have Learned</p> <p>Activity 1</p> <p>1. Wash, sanitize, air dry 2. Heat and chemical 3. Chlorine, iodine quaternary ammonium 4. removing 5. concentration</p> <p>Activity 2</p> <p>1. ✓ 2. ✓ 3. X 4. X 5. ✓</p>	<p>Assessment</p> <p>1. D 2. A 3. D 4. D 5. A 6. D 7. A 8. C 9. D 10. C 11. C 12. C 13. B 14. A 15. A</p>
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Lesson 2

<p>What I Know</p> <p>1. C 2. D 3. C 4. C 5. A 6. A 7. B 8. C 9. D 10. B 11. C 12. C 13. B 14. C 15. B</p>	<p>What's In</p> <p>1. B 2. E 3. D 4. A 5. C</p> <p>What's New</p> <p>1. Detergent 2. Solvent 3. Abrasive 4. Cleaning 5. Acid</p>	<p>What's More</p> <p>Activity 2</p> <p>1. F 2. F 3. F 4. T 5. F</p> <p>Activity 3</p> <p>1. A 2. C 3. F 4. B 5. D 6. E</p>	<p>What I Have Learned</p> <p>1. accumulation 2. detergents 3. grease 4. acid cleaner 5. remove 6. Phosphoric acid 7. steel wool 8. Rust 9. surfactant 10. agents</p>	<p>Assessment</p> <p>1. D 2. C 3. C 4. D 5. C 6. B 7. C 8. B 9. B 10. C 11. C 12. C 13. B 14. A 15. A</p>
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