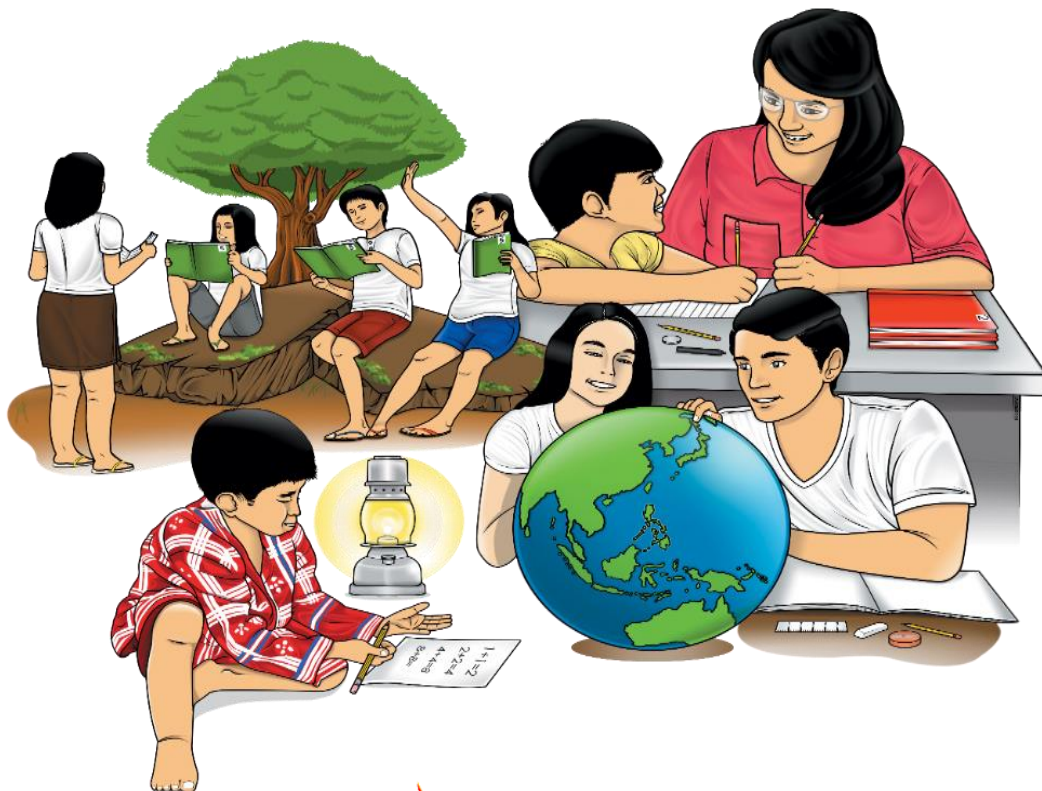


# **Technology and Livelihood Education**

## **Home Economics - Nail Care**

### **Quarter 0-Module 2 & 3**

### **Basic Preventive and Corrective Maintenance**



**TLE – Grade 8 Nail Care**  
**Alternative Delivery Mode**  
**Quarter 0-Module 2: Basic Preventive and Corrective Maintenance**  
**First Edition, 2020**

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**Technology and  
Livelihood Education  
Home Economics - Nail Care  
Quarter 0 -Module 2-3  
Basic Preventive and Corrective  
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***

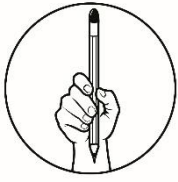
This module was designed and written with you in mind. It is here to help you master basic preventive and corrective maintenance. The scope of this module permits it to be used in many different learning situations. The language used recognizes the diverse vocabulary level of students. The lessons are arranged to follow the standard sequence of the course. But the order in which you read them can be changed to correspond with the textbook you are now using.

The module contains the following learning outcomes:

- LO 1 – Perform Basic Preventive and Corrective Maintenance  
(TLE\_HEBC7/8MT-Od-e-3)

After going through this module, you are expected to:

- 1.1 Clean tools according to standard procedure
- 1.2 Inspected defective tools and equipment



## ***What I Know***

Directions: Read each statement carefully. Write the letter of the correct answer in your activity notebook.

1. A process that physically removes contamination, including some microorganisms.
  - A. cleaning agent
  - B. decontamination
  - C. sterilization
  - D. cleaning
2. It destroys or inactivates pathogens and microorganisms.
  - A. disinfectant
  - B. disinfection
  - C. sterilization
  - D. cleaning
3. It is a disease-causing microorganism.
  - A. pathogens
  - B. cleaning agents
  - C. disinfectant
  - D. sterility
4. It is regularly performed on a piece of equipment to reduce the likelihood of failure, and it also ensures that anything of value to your salon receives consistent maintenance to avoid unexpected breakdowns and costly disruptions.
  - A. inventory
  - B. safekeeping
  - C. preventive maintenance
  - D. predictive maintenance
5. What most likely be the result of using uncleaned tools?
  - A. healthy nail care service
  - B. it won't be harmful at all
  - C. getting nail fungus and nail diseases
  - D. none of these
6. It is the term for the goods and raw materials available for sale.
  - A. listing
  - B. cleaning
  - C. inventory
  - D. safekeeping
7. Which of the following is not true about inventory?
  - A. Inventory requires patience, diligence, and honesty.
  - B. Proper inventory of tools and materials saves money and avoids wastes of materials and products.
  - C. Inventory is not only limited to keeping track of tools and equipment but to the materials and products as well used in the nail care services.
  - D. None of the above

8. Which of the following undergoes inventory?
  - A. work tools
  - B. products
  - C. administrative needs
  - D. all of these
9. Which of the following is the best storage place?
  - A. drawer
  - B. shelf
  - C. portable storage container
  - D. any of these
10. Mrs. Herera bought a new pair of nippers even though there is still one in the shop because she thought it was lost. What did she miss?
  - A. inventory and safekeeping
  - B. labeling
  - C. naming
  - D. none of these
11. In cleaning equipment, what is the prescribed water temperature?
  - A. cold
  - B. very cold
  - C. warm
  - D. hot
12. Which of the following is the best way of cleaning to avoid creating mists that can spread microorganisms?
  - A. scrub below the water surface
  - B. scrub above the water surface
  - C. scrub on a container without water
  - D. any of these
13. Why should emery boards not be shared?
  - A. They are cheap.
  - B. They can be easily purchased.
  - C. It can cause nail diseases.
  - D. It is made of paper and easily ruin.
14. Preventive maintenance is a/an \_\_\_\_\_ activity.
  - A. scheduled
  - B. intuitive
  - C. once-in-a-blue-moon
  - D. yearly
15. Why does equipment need cleaning before disinfection?
  - A. Disinfection contact is maximized
  - B. Maximum result of cleaning is achieved
  - C. Surface debris reduces the effectiveness of the disinfectant
  - D. All of the above

## Lesson

# 1

## Basic Preventive & Corrective Measure

Nail care tools and equipment are essential in nail care services. Some of them are made of porous materials like nail files, buffers, nail brushes that can get bacteria quickly. There are tools also that are in poor condition that pose a danger to the clients.

In this lesson, you will be guided on how to clean tools according to standard procedures using different cleaning agents and disinfectants in decontamination.



### ***What's In***

Cleaning tools and equipment is so vital in nail care. It should be a habit because these tools are shared among a number of people. Cleaning prevents the spread of fungal and bacterial diseases from one person to the other person.

Let us have a simple recall of the different tools and equipment used in Nail Care. Please answer the next activity prepared for you.

Directions: Check the underlined word. Write TRUE if the statement is correct and and if it is false, change the underlined word.

1. A nail pusher is a hand tool made of metal used to trim fingernails and toenails.
2. Cuticle nail pusher is a tool used to push back and loosen the cuticles.
3. The tool used to cut the cuticles is called emery board.
4. A nail file is an implement with pointed and rounded ends used to remove excess polish.
5. A sterilizer is an equipment used to sanitize or kill bacteria or microorganisms in metal implements.

How many points did you get? Are you perfect? If so, you are now ready to learn our new lesson.





## What's New

### Activity 1. Fill Me Up.

An exciting activity prepared for you so that you will familiarize yourself with the topic in this module.

Directions: Write the missing letter to each box to complete the answer for each statement.

- \_\_\_\_\_ is a process that physically removes contamination, including some microorganisms.

	L	E		N			G
--	---	---	--	---	--	--	---

- It eventually destroys or inactivates pathogens and microorganisms.

D		S				E	C			N	T
---	--	---	--	--	--	---	---	--	--	---	---

- \_\_\_\_\_ means soiling with skin or nail debris, cosmetic product, or blood, and it may not need to be visible.

C	O			A		I		A		I	O	
---	---	--	--	---	--	---	--	---	--	---	---	--

- The term used to mean the destruction of microorganisms.

	T	E			L		Z	A		I	O	
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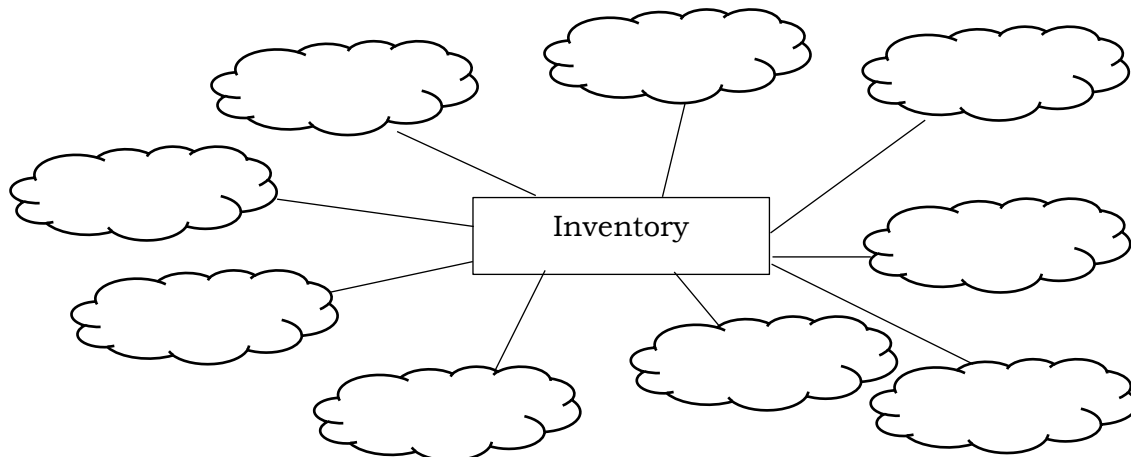
- A product used for cleaning.

C		E			I		G
---	--	---	--	--	---	--	---

	G	E		
--	---	---	--	--

### Activity 2: Word Cloud

Directions: Write the words that you can relate to the phrase INVENTORY inside the clouds.





## ***What is It***

### **Preventive Maintenance**

**Preventive maintenance** is regularly performed on a piece of tools and equipment to reduce failure. It is essential to plan and conduct a maintenance activity to detect defective tools and equipment to determine what particular tools and equipment need repair and replacement.

Sterilizing metal tools, sanitizing wooden tools, disinfecting hand, and foot spa machines are preventive maintenance activities. Contaminated tools can cause bacterial and fungal infections that are unsightly, painful, and sometimes, fatal. There are several methods of cleaning and sterilization.

In the workplace, to avoid contamination, cleaning agents and disinfectants are being used.

**Contamination** means soiling (dirty) like with skin or nails debris, cosmetic product, or blood, and it may not need to be visible. *Decontamination* is a combination of processes that removes or destroys contamination so that disease-causing bacteria won't spread and can cause infection or harm to people.

**Cleaning** is the first step in decontamination. It will be followed by *disinfection* that would eventually destroy or inactivate pathogens and microorganisms. Meanwhile, sterilization, in contrast to disinfection, is used to mean the destruction of microorganisms.

To start cleaning, you must:

- Clean equipment in warm water to remove all debris
- Use liquid soap or detergent according to manufacturers' instructions.
- Don't use disinfectants – these do not help remove organic residues.
- Scrub below the water surface – avoid creating mists that can spread microorganisms
- Wear a washing-up type of gloves and – absorbent apron. Select vinyl or low protein powder to avoid latex allergy
- Discard single-use items like razors to a container after use.

Tools and equipment need cleaning using cleaning agents before disinfection because any surface debris reduces the effectiveness of the disinfectant. A **cleaning agent** is a solvent or product used to aid the cleansing process.

## **Types of Cleaning Agents and Disinfectants**

1. **Detergents** - are the most common type of cleaning agent used in home and commercial kitchens. They work by breaking up dirt or soil, making it easy to wash it away.
2. **Bleach** - is a reliable and effective disinfectant. Its active ingredient, sodium hypochlorite, denatures protein in microorganisms is effective in killing bacteria, fungus, and viruses. Diluted household bleach is well for the disinfection of facilities.
3. **Alcohols** - are effective disinfectants capable of dissolving lipids. They are inexpensive and relatively easy to handle, although their vapors are flammable.
4. **Quaternary Ammonium Compound** - ammonia is used to clean a variety of household surfaces like tubs, sinks, and toilets to the bathroom and kitchen countertops and tiles and stubborn dirt that sticks to nail care metal tools like nail cutter, cuticle pusher, and cuticle nipper. It is also commonly used in glass cleaning solutions because it evaporates quickly.

## **Steps In Cleaning Nail Care Tools And Equipment**

### Equipment

- Read directions on how to use disinfectant before sanitizing equipment.
- Follow correct measures and mixtures of disinfectants, as reflected in the directions.
- Wipe equipment with a cloth soaked in a disinfectant solution.
- Dry the surface disinfected.
- Throw away the sanitizing disinfectant solution to waste bin for hazardous materials.

### Metal tools

- Soak metal tools in hot with soap solution to remove oil residue and rinse them thoroughly.
- Put alcohol solutions to metal tools for 20 minutes.
- Remove the tools from solution, wipe, and dry.

### **To ensure a safety manicure every time, follow these simple steps:**

- Clean clippers, glass files, and cuticle nippers regularly. Wipe off any debris, wash with soap and water, and disinfect by rubbing with an alcohol-soaked cotton ball.
- Avoid sharing emery boards because they are made of paper. Replace them when filing nails no longer produces smooth results.
- Store tools properly. Place dry, disinfected implements in an airtight container. It will keep them germ-free.

As part of the general habit, you must always remember the following:

- a. Clean and store the equipment correctly after every use.
- b. Remove any contaminated liquids.
- c. Never put equipment away unless it's ready for the next day's use.
- d. Always follow the operating instruction in the manual for the equipment.
- e. Always keep your tools and equipment in dry places.

### **Inventory & Safekeeping**

Inventory is an activity to keep track and prevent loss and misplacement of tools and equipment.

Here are some steps in doing an inventory of tools and equipment.

1. Check all tools and equipment needed for nail care services.
2. Stock consumable supplies like color and nail supplies such as nail polish, nail tips, brushes, powder, acrylic compound to ensure the satisfaction of clients.
3. Stock equipment like operator chairs, spa chairs, manicure desks, blow dryers to ensure the same number of manicurists.
4. Label tools, materials, and equipment to have smooth tracking and write down the user of the tools and equipment, especially to those who have much staff.

Now that you are done with your inventory, you are now able to inspect if your tools and equipment are defected or not. But how are you going to do this? Here are some of the steps that you can follow:

1. For electrical devices, always check for chips in its electrical cord for this can cause electrical shock.
2. For tools like nail cutters, cuticle pushers, and cuticle nippers, always check if it has dents and if it has become dull.
3. For chairs and tables, check its legs and look for sign of tear to prevent accidents caused by broken chairs.

As part of the inventory process, inspecting tools is a must. A defective tool means a loss in business and it can cause accidents. These tools and equipment must be properly recorded and stored at a different area where you keep defective items for repair and must be separated from those functional ones.

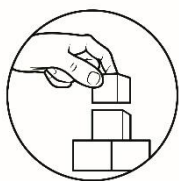
After the inventory and inspection of defective tools and equipment, safekeeping must be done where you store materials or other items of value in a protected area. It also includes the organization of tools and equipment. After conducting inventory, it is crucial to organize your tools and equipment accurately.

Here are some questions to keep in mind:

- Do you use your nail supplies daily, weekly, or every couple of weeks?
- Do you use your supplies in the same location or other areas of the home?
- Would you rather have your supplies out in the open for easy accessibility, or would you rather have them tucked away somewhere for added safety?

Here are a few ways you can do to organize and store your nail supplies:

1. Place all nail supplies in the container that has a lid and look for a room to store your kit.
2. Create a space on a shelf in your bathroom closet or cabinet and add tension rod to hold a bottle of nail polish, creams, etc. Put a magnetic strip on the back wall of the cabinet for storing metal tools.
3. When using a drawer, clear out space and define storage areas like one area will store nail polish, another nail tools, another for cotton swabs.



## ***What's More***

### **Activity 1**

Directions: Put a check on the table that specifies the appropriate use of the following cleaning agents and disinfectants. Write your answer in your activity notebook.

Cleaning agent / disinfectant	For cleaning of:		
	Tools	Skin	Work Surfaces
Powder or Liquid Detergent			
Bleach			
60-80% alcohol			
Quaternary Ammonium Compounds			

## Activity 2

Directions: Complete each statement by writing the appropriate word or phrase from the list. Write your answer on your activity notebook.

failure

regularly

manual

they are made of paper

rubbing with an alcohol-soaked cotton ball.

1. Emery board can't be sanitized because \_\_\_\_\_.
2. Disinfect clippers, glass files, and cuticle nippers by \_\_\_\_\_.
3. Preventive maintenance of tools and equipment should be done \_\_\_\_\_.
4. To prevent work accidents, always operate equipment according to the instructions found in \_\_\_\_\_.
5. Preventive maintenance reduces the likelihood of \_\_\_\_\_.

## Activity 3

Directions: Group the different tools and equipment found in the wordpool by writing the name of the tools on the appropriate box for safekeeping. Write your answer on your activity notebook.

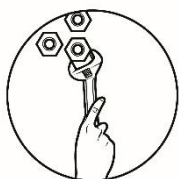
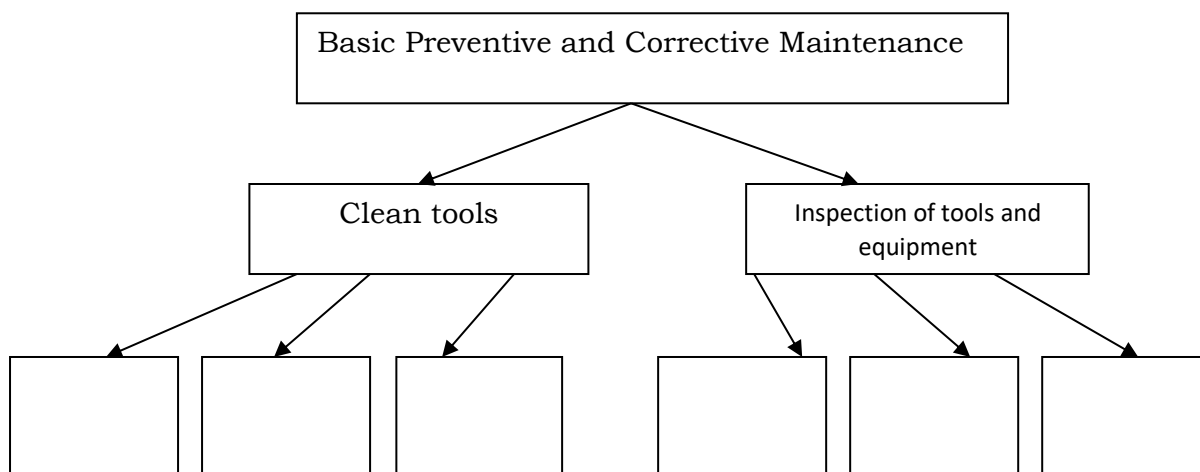
Nail Buffer	Cuticle Nipper	Cotton Buds	Nail File
Orangewood Stick	Cotton	Nail Brush	Hand Lotion
Nail Cutter	Finger Bowl	Towel	Tissue
Hand Cream	Toe Separator	Sanitizer	Manicure Tray
Nail Dyer	Foot File	Cushion	Nail Art Machine
Stool	Tweezers	Manicure Table	Hand Spa Machine

Tools		
Plastic	Metal	Wood
Materials		Equipment
Consumables	Non Consumables	



## What I Have Learned

To check if you have learned the topics in this module, write three ideas in each sub category.



## What I Can Do

Now, let us see more of the knowledge you gained from this module by answering the following activities.

### Activity 1

Read the short story and answer the questions. Write the answer in your activity notebook.

Sandra works in a salon. To make it clean, she uses antibacterial products to sanitize desks and other areas and dry it with a clean cloth. She ensures that the tools like cuticle pushers, tweezers, cuticle nippers are sterilized and disinfect the equipment every after use. Very often, other tools like buffer, orangewood sticks, paper tissues are replaced regularly for these items are impossible to clean.

1. Who works in the salon? \_\_\_\_\_
2. How did Sandra maintain her salon clean and safe? \_\_\_\_\_
3. What did she do to items that are difficult to clean? \_\_\_\_\_
4. How can tools and equipment be kept safe, clean, and functional? \_\_\_\_\_

## Activity 2

Directions: Choose *ONE* of the following tasks. Write down your reflection in your activity notebook.

1. Interview a local beautician on his/her practices and methods in cleaning nail care tools and how does he/she conducts inventory and safekeep it.



## Assessment

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

1. \_\_\_\_\_ is a process that physically removes contamination, including some microorganisms.
  - A. cleaning agent
  - B. decontamination
  - C. sterilization
  - D. cleaning
2. In cleaning equipment, what is the prescribed water temperature?
  - A. cold
  - B. very cold
  - C. warm
  - D. hot
3. Which of the following undergoes inventory?
  - A. work tools
  - B. products
  - C. administrative needs
  - D. all of these
4. Don't share emery boards. Why?
  - A. They are cheap
  - B. They can be easily purchased
  - C. It can cause nail diseases
  - D. They can't be adequately sanitized since they are made of paper
5. What most likely be the result of using uncleaned tools?
  - A. Healthy nail care service
  - B. It won't be harmful at all
  - C. Getting nail fungus and nail diseases
  - D. None of these
6. \_\_\_\_\_ is the term for the goods available for sale and raw materials used to produce products available for sale.
  - A. listing
  - B. cleaning
  - C. inventory
  - D. safekeeping



7. It eventually destroys or inactivates pathogens and microorganisms.
- A. disinfectant
  - B. disinfection
  - C. sterilization
  - D. cleaning
8. A disease-causing microorganism.
- A. pathogens
  - B. cleaning agents
  - C. disinfectant
  - D. sterility
9. Which of the following is the best storage place?
- A. drawer
  - B. shelf
  - C. portable storage container
  - D. any of these
10. Why do equipment needs cleaning before disinfection?
- A. Disinfection contact is maximized
  - B. Maximum result of cleaning is achieved
  - C. Surface debris reduces the effectiveness of a disinfectant
  - D. All of the above
11. Mrs. Herera bought a new pair of nippers when there is still one in the shop. She thought it was lost. What did she miss?
- A. inventory and safekeeping
  - B. labeling
  - C. naming
  - D. none of these
12. To avoid creating mists that can spread microorganisms when cleaning, one must \_\_\_\_\_.
- A. Scrub below the water surface
  - B. Scrub above the water surface
  - C. Scrub on a container without water
  - D. Any of these
13. Preventive maintenance is a/an \_\_\_\_\_ activity.
- A. scheduled
  - B. intuitive
  - C. once-in-a-blue-moon
  - D. yearly
14. Which of the following is not right about inventory?
- A. Inventory requires patience, diligence, and honesty.
  - B. Proper inventory of tools and materials saves money and avoids wastes of materials and products.
  - C. Inventory is not only limited to keeping track of tools and equipment but to the materials and products as well used in the nail care services.
  - D. None of the above

15. \_\_\_\_\_ is regularly performed on a piece of equipment to reduce the likelihood of failure, and it also ensures that anything of value to your salon receives consistent maintenance to avoid unexpected breakdowns and costly disruptions.
- A. inventory
  - B. safekeeping
  - C. preventive maintenance
  - D. predictive maintenance



## ***Additional Activities***

- A. Read this article about keeping the tools and equipment clean. Write your reflection or reaction to the items on your activity notebook.

### **Proper Cleaning and Disinfection**

Just about everything in the salon has a hard or soft surface of some type. Some examples are manicuring tabletops and arm cushions, finger bowls, towels, files/buffers, implements, etc. Any of these surfaces coming into direct contact with a client's skin is considered "contaminated". All contaminated surfaces must be thoroughly and properly cleaned and disinfected.

To be considered properly clean, a surface must first be thoroughly scrubbed free of all visible signs of debris or residue (contamination). Proper cleaning is the total removal of all visible residue from every surface of tables, tools and equipment, followed by a complete and thorough rinsing with clean water.

Proper cleaning (also called sanitizing) must be performed before continuing with the disinfection step. Proper disinfection is the destruction of potentially harmful or infection-causing microorganisms (pathogens) on a pre-cleaned surface.

Proper cleaning requires liquid soap/detergent, water and the use of a clean and disinfected scrub brush to remove all visible debris and residue. All items should be scrubbed with a clean and disinfected scrub brush under running water. Cleaning is not disinfection; disinfection is an entirely separate step. Different items are cleaned in different ways. This often depends on what the item is made of and how it was used. Note: the cleaning step be properly performed before an item can be disinfected. All items must be thoroughly rinsed and dried with clean cloth or paper towels prior to putting them into a disinfectant.

After proper cleaning, all reusable implements/tools must be disinfected by complete immersion in an appropriate disinfecting solution. The item must be completely immersed so that all surfaces, including handles, are soaked for the time required on the disinfectant manufacturer's label.

Remove items after the required time, using clean and disinfected tongs or gloves to avoid skin contact with the disinfectant solution. If required by the instruction label, rinse thoroughly in running water. Allow items to air dry completely by placing them on top of a clean towel and covering them with another clean towel. Thick foam cushioned buffers should have the moisture

pressed out while in between clean towels to ensure the buffer is dry before storing in a sanitary manner. It is recommended to spray 60-90% isopropyl or ethyl alcohol on clean, porous abrasives and buffers to disinfect them. A contact time of 5 minutes is sufficient for proper disinfection.

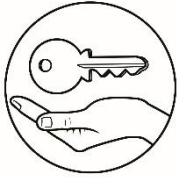
Source: Guidelines for Cleaning and Disinfecting Manicure and Other Nail Enhancement Equipment Supplies <https://www.nailsuperstore.com/tips-detail/sanitation-of-nail-technology-tools/94>

- B. Suppose you are a nail care salon operator, create a schedule on preventive maintenance for your tools and equipment. Choose only 8 tools and 2 equipment from the word pool below. Write it in your activity notebook.

Nail Buffer	Cuticle Nipper	Cotton Buds	Nail File
Orangewood Stick	Cotton	Nail Brush	Hand Lotion
Nail Cutter	Finger Bowl	Towel	Tissue
Hand Cream	Toe Separator	Sanitizer	Manicure Tray
Nail Dyer	Foot File	Cushion	Nail Art Machine
Stool	Tweezers	Manicure Table	Hand Spa Machine

Example:

Tools/Equipment	Schedule
sterilizer	Every three days



## Answer Key

<p>Assessment</p> <p>B. Multiple Choice</p> <p>1. D 2. C 3. D 4. D 5. C 6. C 7. C 8. A 9. D 10. C 11. A 12. A 13. A 14. D 15. C</p> <p>What I Have Learned</p> <p>1. Cleaning 2. Clean 3. Sterilization 4. Correct 5. Regular 6. Lengthens 7. Manual 8. Never 9. Inventory 10. Safekeeping</p> <p>(similar words may do)</p>	<p>What I Know</p> <p>Activity 1</p> <p>1. D 2. C 3. A 4. C 5. B 6. A 7. D 8. D 9. D 10. A 11. C 12. A 13. D 14. A 15. C</p> <p>What's In</p> <p>Activity 1</p> <p>1. Nail cutter 2. True 3. Cuticle nipper 4. Orangewood stick 5. Sanitize</p>	<p>What's New</p> <p>Activity 1</p> <p>1. CLEANING 2. DISINFECTANT 3. CONTAMINATION 4. STERILIZATION 5. CLEANING AGENT</p> <p>What's More</p> <p>Activity 2</p> <p>1. rubbing with an alcohol-soaked cotton ball 2. they are made of paper 3. regularly 4. manual 5. failure</p>
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# References

## Internet

"Ammonia" 2020

Retrieved from

<http://www.chemicalsafetyfacts.org/ammonia/#:~:text=Ammonia%20in%20Household%20Cleaning%20Products&text=Ammonia%20also%20is%20effective%20at,solutions%20to%20help%20avoid%20streaking>. On June 19, 2020

Muraya, Christine, and Richardson, Alison Mead. "Maintain a Safe and Hygienic Salon" 2008

Retrieved from

<https://creativecommons.org/licenses/by-sa/3.0/> on June 19, 2020

"Use of Bleach"

[www.info.gov.hk/info/sars/en/useofbleach.htm](http://www.info.gov.hk/info/sars/en/useofbleach.htm) on December 5, 2019

Smith, Elle. "What Inventory Do I Need To Open A Nail Shop" 2020

Retrieved from

<https://smallbusiness.chron.com/inventory-need-open-nail-shop-41420.html> on December 17, 2019

Alcohol as Disinfectants."

Retrieved from

<https://nzhealthe.co.nz/knowledge-index/alcohol-as-disinfectants> on December 17, 2019

Isip, Rashelle. "How to Organize Nail Supplies" 2020

Retrieved from

<https://www.theorderexpert.com/how-to-organize-nail-supplies/> on December 17, 2019

Kagan, Julia. "safekeeping" 2020

Retrieved from

<https://www.investopedia.com/terms/s/safekeeping.asp> on December 16, 2019

"What is Preventive Maintenance"

Retrieved from

<https://www.accelix.com/community/preventive-maintenance/what-is-preventive-maintenance/> on December 16, 2019

Noll, Morgan. "8 Simple Ways to Banish Dry, Brittle Nails for Good" 2019

Retrieved from

<https://www.realsimple.com/beauty-fashion/skincare/hands-feet/healthy-nail-care-tips>  
<https://www.realsimple.com/beauty-fashion/skincare/hands-feet/healthy-nail-care-tips>

"4 Types of Cleaning Agents and When to Use Them" 2017

Accessed on December 5, 2019.

Retrieved from

<https://www.foodsafety.ca/blog/4-types-cleaning-agents-and-when-use-them> on December 5, 2019

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