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Computer Systems Servicing



Computer Systems Servicing
Quarter 1 – Module 9: Personal Protective Equipment (PPE) and Tools

First Edition, 2020

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Computer Systems Servicing

Quarter 1

Self-Learning Module 9

Personal Protective Equipment (PPE) and Tools



Introductory Message

For the Facilitator:

Welcome to the **Computer Systems Servicing** Self-Learning Module on **Personal Protective Equipment (PPE) and Tools!**

This Self-Learning Module was collaboratively designed, developed and reviewed by educators from the Schools Division Office of Pasig City headed by its Officer-in-Charge Schools Division Superintendent, Ma. Evalou Concepcion A. Agustin, in partnership with the City Government of Pasig through its mayor, Honorable Victor Ma. Regis N. Sotto. The writers utilized the standards set by the K to 12 Curriculum using the Most Essential Learning Competencies (MELC) in developing this instructional resource.

This learning material hopes to engage the learners in guided and independent learning activities at their own pace and time. Further, this also aims to help learners acquire the needed 21st century skills especially the 5 Cs, namely: Communication, Collaboration, Creativity, Critical Thinking, and Character while taking into consideration their needs and circumstances.

In addition to the material in the main text, you will also see this box in the body of the module:



Notes to the Teacher

This contains helpful tips or strategies that will help you in guiding the learners.

As a facilitator you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their own learning. Moreover, you are expected to encourage and assist the learners as they do the tasks included in the module.



For the Learner:

Welcome to the **Computer Systems Servicing** Self-Learning Module on **Personal Protective Equipment (PPE) and Tools!**

This module was designed to provide you with fun and meaningful opportunities for guided and independent learning at your own pace and time. You will be enabled to process the contents of the learning material while being an active learner.

This module has the following parts and corresponding icons:



Expectations - This points to the set of knowledge and skills that you will learn after completing the module.



Pre-test - This measures your prior knowledge about the lesson at hand.



Recap - This part of the module provides a review of concepts and skills that you already know about a previous lesson.



Lesson - This section discusses the topic in the module.



Activities - This is a set of activities that you need to perform.



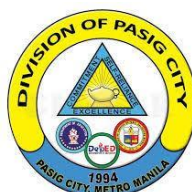
Wrap-Up - This section summarizes the concepts and application of the lesson.



Valuing - This part integrates a desirable moral value in the lesson.



Post-test - This measure how much you have learned from the entire module.





EXPECTATIONS

After completing this lesson, you should be able to:

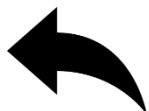
1. Identify and discuss the use of Personal Protective Equipment (PPE).
2. List down and differentiate the proper tools used for assembly/disassembly of computer.
3. Appreciate the importance of using PPE and proper tools in work area.



PRE-TEST

Direction: Read each statement below carefully. Write **T** if the statement is TRUE. Write **F** if the statement is FALSE.

- _____ 1. Selecting a tool for each task requires the proper use of tools.
- _____ 2. Diagnostic tools are used to find problems that may be disrupting your computer's normal performance.
- _____ 3. It is safe to use a substitute tool for a specific task.
- _____ 4. All tools should be kept in good condition with regular maintenance.
- _____ 5. Hand tools are used for performing work on a material or a physical system using hands.



RECAP

Direction: Match the computer system specification of column A to the sample value of column B. Write the answer at the blank space before the number.

A

B

___ 1. Operating System

a. 4 gigabytes (GB)

___ 2. Processor Speed

b. NVIDIA GeForce GTX 1060



___3. Memory (RAM)

c. 1 terabytes (TB)

___4. Graphics Card

d. 1366 x 768 60Hz

___5. Hard Disk Space

e. Windows 10 Pro

f. Intel i5 3.2 GHz



LESSON

Personal Protective Equipment (PPE)

It refers to protective clothing, goggles, or other gear designed to protect the wearer's body or clothing from injury by electrical hazards, heat, chemicals, and infection, for job-related occupational safety and health purposes.

It is important that students and teachers during their laboratory period should be required to use personal protective equipment. Some of these are:

1. Goggles is used for protecting the eyes from dust, excessive light and wind.



<https://www.andhrasurgicals.com/products/ppe-safety-goggles>

2. Gloves the covering material with a separate sheath for each finger used for hand protection.





<https://amazon.com/Universal-Electronic-Computer-Antiskid-Protection/dp/B01CKZAUS4>

3. Face Mask a covering for the face to prevent the inhaling or absorbing dust and other chemicals.

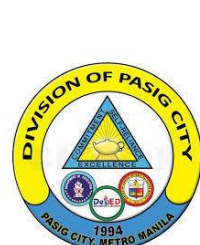


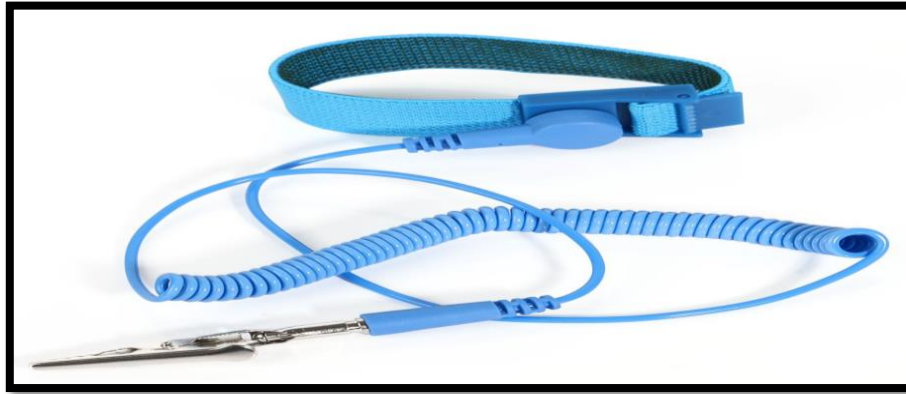
<https://www.robobull.com/products/kn95-face-mask-without-respirator-valve?variant=32151385604156>

Types of tools use for assembly/disassembly of computer:

A. Electro-Static Discharge (ESD) Tools is used to control discharge of electrostatic electricity.

1. Anti-static wrist strap is use to prevent ESD damage to computer equipment.





<https://shopee.ph/Anti-Static-ESD-Wrist-Strap-Discharge-Band-Grounding-i.23880785.970103884>

2. Anti-static mat is use to place hardware component to prevent static electricity from building-up.



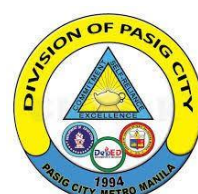
<https://www.clipart.email/clipart/anti-static-mat-clipart-442566.html>

B. Hand Tools is use for performing work on a material or a physical system using hands.

1. **Philips screwdriver** is used to loosen or tighten crosshead screws.



<https://www.handymanguides.com/tips/phillips-screwdriver-history/>



2. **Flat screwdriver** is use to loosen or tighten slotted screws.



<http://tataagricousa.com/flat-tip-striking-screwdriver-8x200.html>

C. Diagnostic Tools is use to find problems that may be disrupting your computer's normal performance.

1. **Multimeter** is use to test the integrity of circuits and the quality of electricity in computer components.

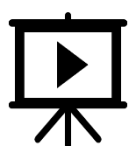


<https://en.wikipedia.org/wiki/Multimeter>

2. **Loopback Adapter** is use to test the functionality of computer ports.



<http://cejudoangelo.weebly.com/pc-hardware-servicing.html>



ACTIVITIES

Activity 1:

Direction: List down 3 personal protective equipment (PPE) and give the uses.

Personal protective equipment	Uses
1.	
2.	
3.	

Activity 2:

Direction: Enumerate at least 2 tools for each types tools used for assembly/disassembly of computer and give the functions of each tool.

Types Tools	Tools	Functions
Electro-Static Discharge (ESD) Tools	1.	1.
	2.	2.
Hand Tools	1.	1.
	2.	2.
Diagnostic Tools	1.	1.
	2.	2.





WRAP-UP

Personal protective equipment (PPE) refers to protective clothing, goggles, other garments or equipment designed to protect the wearer's body from injury. Protective equipment may be worn for job-related occupational safety and health purposes.

Each tool is precisely designed for a specific purpose, so choosing the correct tool will also decrease the amount of effort required to get a job done right without causing damage to either the equipment or the surface being worked on.



VALUING

Direction: Read and answer the following questions carefully in two to three sentences each number.

1. What are the importance of personal protective equipment (PPE) and tools?

2. Cite a situation in which you can apply the knowledge of personal protective equipment (PPE) and tools.

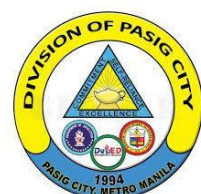




POST-TEST

Direction: Read each statement carefully. Write the letter of the correct answer.

- ___ 1. This tool is used to prevent ESD damage to computer equipment.
 - a. Multimeter
 - b. Anti-static wrist strap
 - c. Loopback adapter
 - d. Anti-static mat
- ___ 2. Which tool is used to loosen or tighten cross-head screws?
 - a. Hex driver
 - b. Flat screwdriver
 - c. Torx screwdriver
 - d. Philips screwdriver
- ___ 3. This tool is used for hardware to stand on to prevent static electricity from building up.
 - a. Anti-static wrist strap
 - b. Anti-static mat
 - c. Loopback adaptor
 - d. Multimeter
- ___ 4. Which tool is used to test the integrity of circuits and the quality of electricity in computer components?
 - a. Anti-static wrist strap
 - b. Multimeter
 - c. Anti-static mat
 - d. Loopback adaptor
- ___ 5. This tool is used to loosen or tighten slotted screws.
 - a. Philips screwdriver
 - b. Torx screwdriver
 - c. Flat screwdriver
 - d. Hex driver





Recap:

<https://www.scribd.com/document/346444834/CHS-Module>

