



Republic of the Philippines
Department of Education
National Capital Region
Schools Division Office – Muntinlupa City

SPECIAL PROGRAM IN TECHNICAL VOCATIONAL EDUCATION (SPTVE)
COMPUTER SYSTEMS SERVICING 10 Q3-W1

I. Topic: PREVENTIVE MAINTENANCE

II. Objectives:

1. understand the concepts and purpose of preventive maintenance;
2. plan and prepare for a preventive maintenance and;
3. demonstrate a preventive maintenance.

III. Brief Introduction of the Lesson

Preventive maintenance is the regular and systematic inspection, cleaning, and replacement of worn parts, materials, and systems to prevent failure of parts, materials, and systems by regularly checking whether all parts are in good working order.

Purpose of Preventive Maintenance

- Reduces the probability of hardware or software problems by systematically and periodically checking hardware and software to ensure proper operation.
- Ensures minimal system failure thus, saving a time and money.
- Upgrading hardware or software.

By providing a systematic framework for organization and cleanliness, 5S+ helps facilities avoid lost productivity from delayed work or unplanned downtime. There are five steps in the system, each starting with the letter S:

1. Sort - eliminate things that don't belong in the area.
2. Set In Order - organize the work area
3. Shine - attacks the dirt and works to keep it from coming back.
4. Standardize - writing down what is a normal work procedure.
5. Sustain - The idea here is continuing commitment.
6. Safety – Safe working environment for the people and the equipment.

IV. Activities

Activity 1

Directions: Based from the pictures below write the name of an ICON inside the box specifying the 5s+.



icon: graphicproducts.com





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Activity 2

Planning and preparing a systematic preventive maintenance procedure will save time, money and frustration. In order to design a preventive plan, it is a good idea and opportunity to determine the possible causes of the problem in maintaining the optimal performance of the computer system.

A. Can you categorize the following systematic preventive plan statement into HARDWARE / SOFTWARE / NETWORK? Write your answer before each number.

- _____ 1. Move computers only when it is turned off and unplugged.
- _____ 2. Backup your files
- _____ 3. Install or secure passwords
- _____ 4. Delete temporary files
- _____ 5. IP address conflict

Computers in general, are pretty stable and you can usually rely on them to not fail you. However, if you develop some basic habits, you can postpone serious computer problems, if not avoiding them entirely.

B. What do you think are the PROBLEM OR ISSUE stated by the following statements below? Write a brief statement after each statement.

- 1. Always assume that failure is about to happen. A fatal error results in data loss, damage to your computer and/or its ability to function due to hardware or software failure, power, or other serious issues.
- 2. Know your computer's specifications and its limits. Even the PC is running idly, it will consume a memory storages capacity.
- 3. Unplugged or loose network cables are one of the most common reasons why you might suddenly find yourself unable to connect to the Internet.
- 4. If your computer and another PC on the network both have the same IP address, the conflict between them will prevent either from working properly online.
- 5. The Internet connection is faulty, so try visiting several popular Web sites rather than just one.

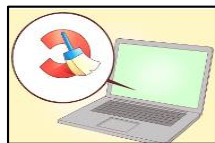
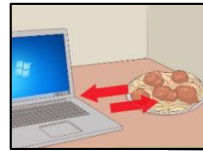




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Activity 3

Directions: Study the picture below. Can you write a phrase/s on the space provided describing each picture?



icon: clipart.email

V. Assessment:

Directions: Read each sentence and encircle the letter of the best answer.

- The regular and systematic inspection, cleaning, and replacement of worn parts, materials, and systems.
 - Preventive Maintenance
 - Corrective Maintenance
 - Unplanned Maintenance
 - Troubleshooting
- The following are purposes of preventive maintenance EXCEPT FOR:
 - Reduces the probability of hardware or software problems
 - Organize electrical-related circuit maintenance
 - Ensures minimal system failure
 - Upgrading certain hardware or software for security and reliability
- Which of the following are the benefits of conducting maintenance?
 - Increased data protection
 - Reduced repair costs
 - Extended device life
 - All of the above
- The following are the techniques and strategies that you may perform when you are trying to solve hardware issues EXCEPT FOR:
 - Trial and Error
 - Check cable issues
 - Document computer issues
 - Run CCleaner





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5. Eliminate clutter and clear up space by removing things that don't belong in the area.
 - a. Sort
 - b. Shine
 - c. Set in order
 - d. Standardize
6. Writing down what is being done, where, and by whom, you can incorporate the new practices into normal work procedure.
 - a. Safety
 - b. Shine
 - c. Set in order
 - d. Standardize
7. Safe working environment for the people and the equipment.
 - a. Safety
 - b. Shine
 - c. Set in order
 - d. Standardize
8. Make sure that there is not too much dust inside, especially on the fans. Dust can reduce performance and cause overheating.
 - a. Hardware issues
 - b. Network issues
 - c. Dust issues
 - d. Malware issues
9. When buying an equipment or computer parts, always take advantage of it for this will protect your hardware or software to be replaced in case of failure.
 - a. Hardware issues
 - b. Warranty issues
 - c. Dust issues
 - d. Malware issues
10. Know your computer's specifications and its limits. Even the PC is running idly, it will consume a memory storages capacity
 - a. Hardware issues
 - b. Warranty issues
 - c. RAM issues
 - d. Malware issues

VI. Reflection:

How would you prevent the computer system from any failures?

References:

1. CHS 10 module
2. www.tesda.gov.ph
3. <http://en.wikipedia.org>
4. www.techsoup.org
5. www.howstuffworks.com
6. www.microsoft.com/technet/network

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