SCHOOLS DIVISION OF PASAY CITY

9

# TLE – ICT - CSS

# QUARTER 2

Week 7

DEPARTMENT OF EDUCATION
NATIONAL CAPITAL REGION
CIT

# Introductory Message

**MODULE 4-Q2 GRADE 9**

**WELCOME TO THE WORLD OF COMPUTER SYSTEM SERVICING**

This module covers the two of seven (7) common competencies in Computer System Servicing which will lead you to acquire a National Certificate Level II (NC II). It contains information and suggested learning activities for you to complete. Completion of this module will help you better understand the succeeding module on setting up computer networks.

This module consists of two (2) lessons and (6) six learning outcomes. Each lesson and learning outcome contains other sub-learning outcome and learning activities supported by each instruction sheets. Before you perform the activities read the information in What's New and What is It, to ascertain yourself and your teacher that you have acquired the knowledge necessary to perform the skill required of the particular learning outcome.

The specific competency covered in this module and their schedule of recitation are as follows:

**LESSON 3: PERFORMING MENSURATION AND CALCULATION (PMC)**

LO 1. Select measuring instruments

LO 2. Carry out measurements and calculations

LO 3. Maintain measuring instruments

**LESSON 4: PREPARING AND INTERPRETING TECHNICAL DRAWING (PITD)**

LO 1. Identify different kinds of technical drawings

LO 2. Interpret technical drawings

LO 3. Prepare/make changes to electrical/electronic schematics and drawing

# Lesson 4 Performing Mensuration and Calculation

## *What I Need to Know*

**Learning Competency:** Lesson 4: Preparing and Interpreting Technical Drawing

**Learning Outcomes:** LO 2. Interpret technical drawings

**Learning Objectives:**

This module contains unit of competency on "PREPARING AND INTERPRETING TECHNICAL DRAWING (PITD)". This covers the knowledge, skills, attitudes, and values needed in preparing and interpreting technical drawing. At the end of this module, you are expected to:

1. Determine the steps in creating flowchart.
2. Create a simple flowchart; and
3. Follow the rules and steps in creating flowchart.

In the previous lesson, you have learned the different elements and symbols used in creating a flowchart. Before you embark in creating your own flowchart, let us recall the elements and symbols used in creating flowcharts.

## *What's In*

**I. Directions:** Complete the table below.

| Element | Symbol | Purpose |
|---|---|---|
| Terminator | 1. | 2. |
| 3. |  | 4. |
| 5. |  | It refers to an action in a business process. |

**II. Activity**

1. Using the basic symbols in flowcharting, create a simple step by step process or flow of activities that you do before you go out in this time of pandemic.

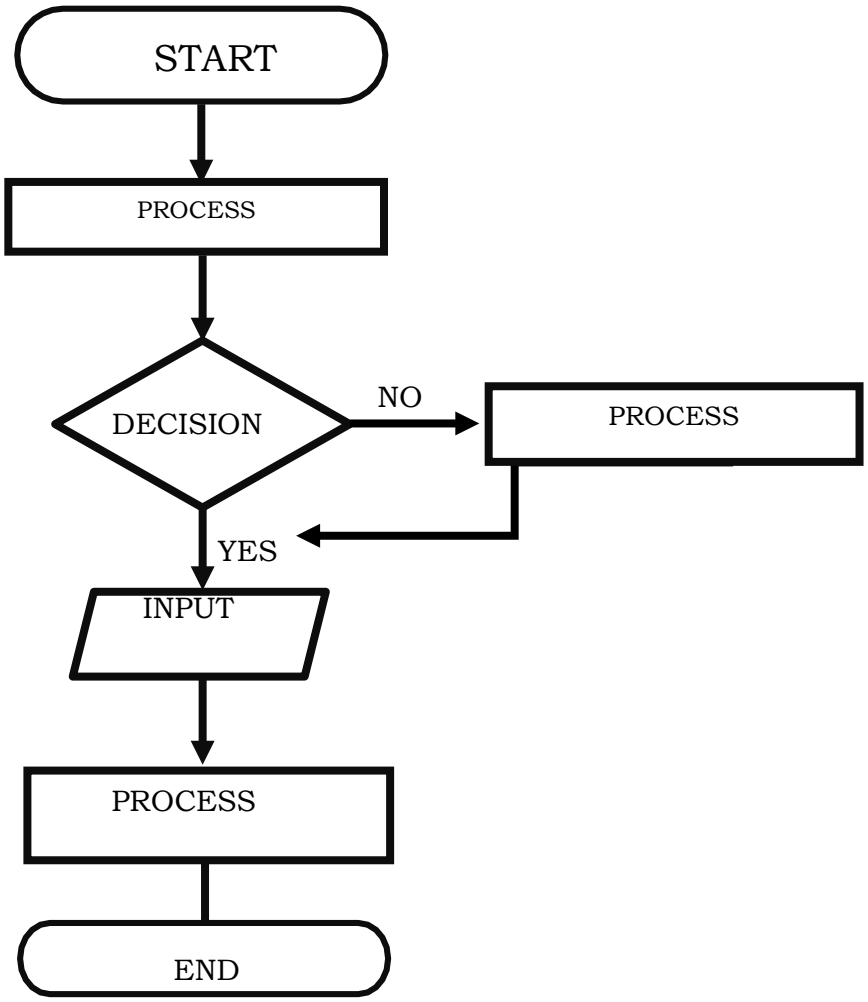
Share your drawing to anyone in your house. Did they understand or identify the activity that you draw?

In this module, you will learn more about creating and interpreting a flowchart.

## *What is It*

A **Flowchart** will help you understand your process and uncover ways to improve and analyze what is happening. It shows the breakdown of a task into all the needed steps.

Each step is represented by a symbol and connecting lines that shows the step-by-step progress. The diagram below shows the basic structure of a flowchart.



**TYPES OF FLOWCHART**

1. **Linear Flowchart.** A linear flowchart is a diagram that displays the sequence of work steps that make up a process. This tool can help identify rework and redundant or unnecessary steps within a process.
2. **Deployment Flowchart.** A deployment flowchart shows the actual process flow and identifies the people or groups involved at each step. Horizontal lines define customer-supplier relationships. This type of chart shows where the people or groups fit into the process sequence and how they relate to one another throughout the process.

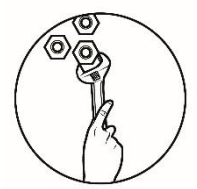
There are lots of methods for constructing flowcharts that have been described and you can safely use any one of them. Just remember that you start out by doing these things:

- ✓ identify the right people to develop the chart.
- ✓ determine what you expect to get from the flowchart.
- ✓ identify who will use it and how will use it.
- ✓ define the level of details you need.
- ✓ establish the boundaries of the process to be improved.

It is important that you start by depicting the process exactly how it works, not the way you think it should work. You need to chart the process as it is. Later you can chart it as it is supposed to work or as you would like it to work.

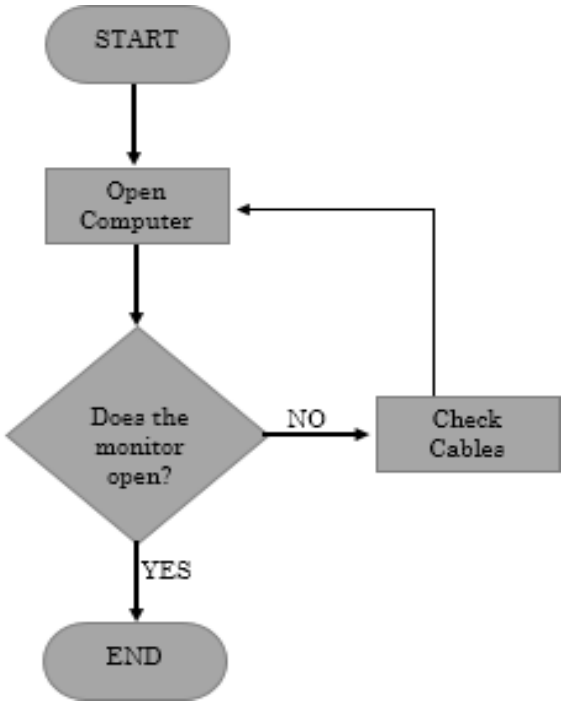
**HERE ARE THE FOLLOWING KEY STEPS IN DEVELOPING A LINEAR FLOWCHART**

1. ***Define the process to be flowcharted***. The purpose for flowcharting it.
2. ***Assemble the right people to develop the flowchart***. Those operators, technicians, or office workers who are involved in the process.
3. ***Establish process boundaries***. The starting and ending points.
    - Identify the major activities or sub processes that are included in the process.
    - Determine what is not included in the scope of the process to remove any doubt or confusion about the boundaries. This may also help establish the scope of related processes.
4. ***List the steps, activities, and decisions to be charted***. If your team is not sure about a step, mark it to be investigated later.
5. ***Put the steps in chronological sequence***. Sometimes it is easier to start with the last step and work back to the first step.
6. ***Assign flowchart symbols*** such as boxes, diamonds, and triangles.
7. ***Review and title the flowchart***.



## *What I Can Do*

**Directions:** Using the basic symbols used in the flowchart, make your own simple chart to show the process of "Basic Troubleshooting for Computer Audio Problem". (Below is the example of Basic Troubleshooting for No Video Output)




# *References*

"Flowchart" www.computerhope.com, last modified October 11, 2017, https://www.computerhope.com/jargon/f/flowchar.htm

Ronaldo V. Ramilo and Deover M. Pasco, Computer Hardware Servicing K to 12 Learning Module Exploratory (for Grade 7 & 8) p.49-62 http://www.depedbataan.com/resources/9/k_to_12_pc_hardware_servicing_learning_module.pdf

Flowchart, p.6-8 https://saferpak.com/flowchart_articles/howto_flowchart.pdf