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**LEARNING ACTIVITY SHEET**  
**SPECIAL PROGRAM IN ICT 7**  
**OFFICE PRODUCTIVITY 7**  
*First Quarter, Week 1*

Name of Learner: \_\_\_\_\_ Date: \_\_\_\_\_

Grade Level /Section: \_\_\_\_\_

## **Introduction to Computing**

### **BACKGROUND INFORMATION FOR LEARNERS**

Technology becomes integral part of our lives nowadays. It includes but not limited to the use of computer and other communication devices. But despite of these, are we familiar of what a computer is? What are the different hardware components of computer, its characteristics, limitations, and uses?

#### **WHAT IS A COMPUTER?**

A *computer* is an electronic multipurpose device that receives, process, displays and stores data. It process data to create information. *Data* is a collection of unorganized facts, including words, numbers, pictures, and sounds. *Information* is the result of processed data that are organized with its meaning and use.

#### **CHARACTERISTICS OF COMPUTER**

Computer is an electronic device which is used to store the data, as given instructions it gives result quickly and accurately. It becomes man's brainpower extension because of the characteristics such as *speed, accuracy, storage capacity, diligence, versatility, power of remembering, no IQ and no feeling.*

#### **LIMITATIONS OF COMPUTER**

1. *Dependence on Prepared Instructions*
2. *Inability to Derive Meanings from Objects*
3. *Inability to Generate Information*
4. *It Cannot Correct Wrong Instructions*



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## ORGANIZATION OF COMPUTER

It is concerned on understanding of the basic computer hardware structure together with peripheral devices. It realizes the computer operational units and their interconnections to form the computer system.

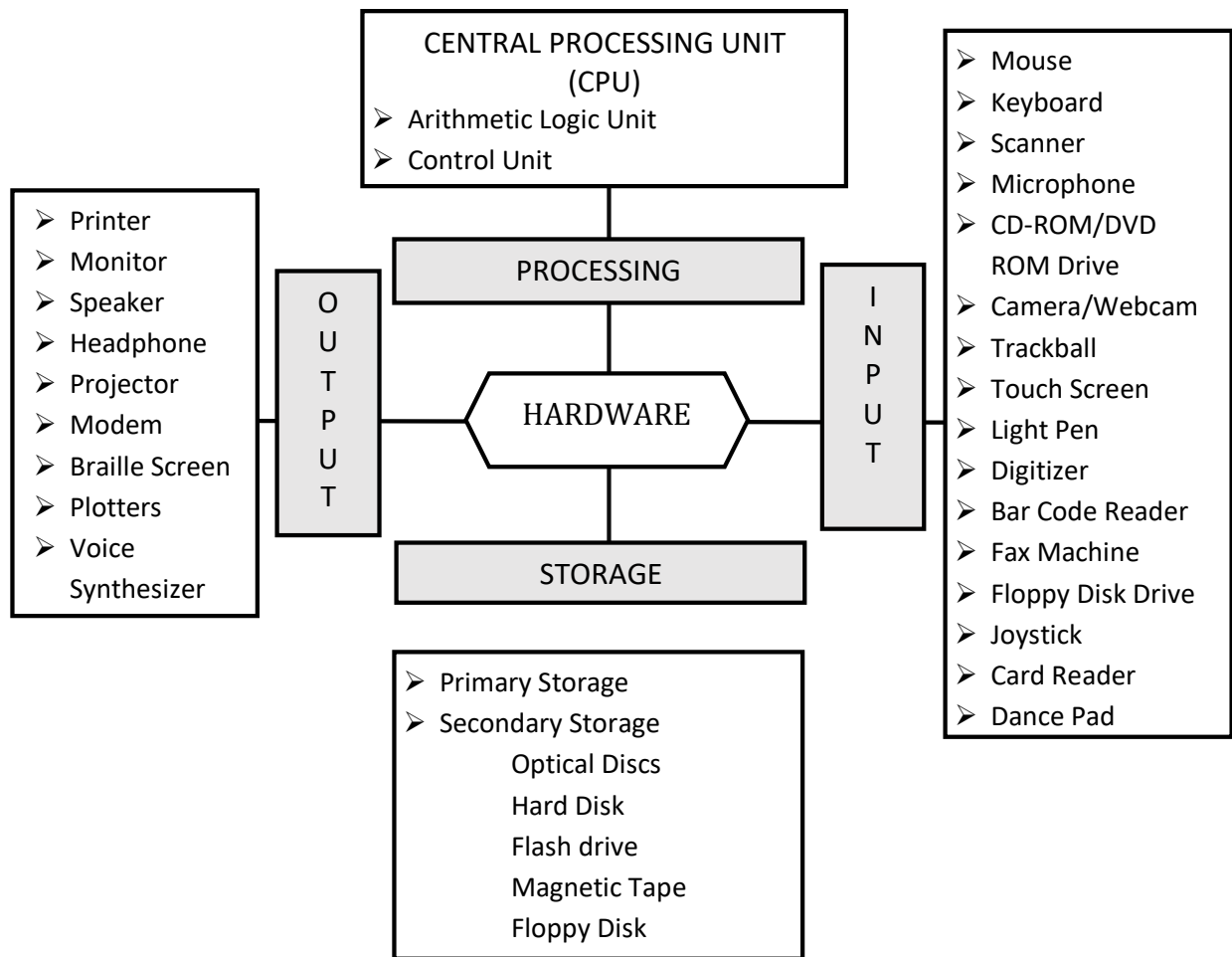


Figure 1. The Basic Organization of a Computer System and its Hardware Components





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### **CENTRAL PROCESSING UNIT (CPU)**

The Central Processing Unit (CPU) or simply referred as *processor*, the brain and heart of the computer. Inside the computer system, the processing is mostly performed by the CPU. It is considered as the most important element in a computer system. It processes the data and produces output, which may store by an application or displayed on the screen.

The CPU has two components, namely:

1. *Arithmetic Logic Unit (ALU)* - performs arithmetic and logical operations.
2. *Control Unit (CU)* - lets the computer's logic unit, memory, as well as both input and output devices know how to respond to instructions received from a program.

*Registers* are the internal memory units of CPU that contain information used in the Arithmetic Logic Unit (ALU) processing.

### **COMPUTER PERIPHERALS**

These devices are the computer external taking in information, allowing the computer to put out information in visible and audible form.

Without peripherals, communication with computer would be far more limited.

Peripheral devices can be external or internal. There are many different peripheral devices, but they fall into the following general categories:

#### ***A. INPUT DEVICES***

- Refer to the physical pieces of computer hardware used for sending data or instructions into computer.



Source: [www.examplesof.net](http://www.examplesof.net)

Figure 2. Example of Input Devices



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### ***B. OUTPUT DEVICES***

It provides and displays output from the computer.



Source: [www.examplesof.net](http://www.examplesof.net)

*Figure 3. Example of Output Devices*

### ***C. INPUT/OUTPUT DEVICES***

Perform both input and output functions, such as computer data storage device including a disk drive, USB flash drive, memory card, and tape drive, smart board and a touch screen.

Gadgets such as digital watches, smartphones, and tablet computers have interfaces which allow them to be used as computer peripheral devices.

### ***D. STORAGE DEVICES***

Aside from the different devices attached on a computer, there are also called storage devices. This device is used to store, port and extract information either in permanent or semi-permanent form.

## **Types of Storage Devices**

### ***1. Primary storage devices***

They are usually design in smaller size but in data access these devices have the fastest speed. Primary storage device includes the RAM, graphic card memory and cache memory. *Primary storage* is also called as main storage, main memory or internal memory.



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## 2. *Secondary storage devices*

They are usually having large storage capacity and are usually used to store data permanently. Secondary storage devices include the hard disk drive, optical disc drive and flash drive. A *secondary storage* device is being known as an auxiliary storage device or external storage.



Source: <http://storagedevicesdiana-keyla.blogspot.com/2010/10/storage-device-definition-and-types-of.html>

Figure 4. Example of Storage Devices

## MODULATOR-DEMODULATOR (MODEM)

A modem is a hardware component that enables computer to connect over the internet through devices like router or switch to transmit data over telephone or cable lines in the form of analog waves.



Source: [ComputerNetworkingNotes.com](http://ComputerNetworkingNotes.com)

Figure 5. Example of Modems



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## LEARNING COMPETENCY

To identify the different physical characteristics, limitations and parts of a computer.

## ACTIVITIES

### ACTIVITY 1

**Directions:** Write *CHARACTERISTIC* if the statement refers to the characteristics of computer and *LIMITATION* if it corresponds to the limitations of computer. Write your answer on the space provided for before the number.

- \_\_\_\_\_ 1. Computers are better than human beings in performing voluminous and repetitive jobs.
- \_\_\_\_\_ 2. The computer cannot generate information on its own.
- \_\_\_\_\_ 3. Computer can remember data for us.
- \_\_\_\_\_ 4. It gives accurate result since it is programmed.
- \_\_\_\_\_ 5. The computer performs only what it is programmed to do and nothing less.
- \_\_\_\_\_ 6. Computers work at an incredible speed. A powerful computer is capable of performing about 3-4 million simple instructions per second.
- \_\_\_\_\_ 7. Computer has no feelings, and unable to recognize and respond to living objects.
- \_\_\_\_\_ 8. Computer can be used to perform completely different types of work at the same time.
- \_\_\_\_\_ 9. Computer will do exactly what is only instructed to do. It cannot decipher the correct instructions from the wrong instructions. It does not have the ability to select and perform only the right ones.
- \_\_\_\_\_ 10. Today's computers can store large volumes of data. A piece of information stored in the computer can never be forgotten and can be retrieved instantly.





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## ACTIVITY 2

**Directions:** The puzzle below consists of hidden computer hardware components. Encircle all the computer components backward, vertically, horizontally or diagonally.

### *REVEAL THE HARDWARE COMPONENTS OF COMPUTER*

G	T	O	U	C	H	S	C	R	E	E	N	C	R	E	E	N	P	A	I	K
H	B	R	E	Y	B	O	A	D	E	E	K	E	Y	B	O	A	R	D	M	S
E	A	I	A	R	E	T	T	O	L	P	I	D	T	A	E	Q	O	I	L	I
A	Y	L	A	C	C	G	M	U	R	O	M	Y	N	M	M	T	J	A	I	D
V	O	I	C	E	S	Y	N	T	H	E	S	I	Z	E	R	E	E	G	N	D
P	N	E	K	L	N	B	G	P	R	P	H	U	L	I	L	W	C	N	I	R
H	G	V	C	H	C	H	A	F	A	T	B	R	R	M	C	H	T	G	W	A
O	M	U	Y	B	Y	B	W	L	A	T	B	I	E	T	Y	B	O	B	A	H
N	A	J	A	R	A	R	A	A	R	A	E	D	S	S	A	R	R	U	N	R
E	G	P	C	C	C	C	N	S	S	A	O	F	A	L	C	C	T	H	S	A
S	I	R	N	K	N	K	S	H	L	M	B	G	P	R	N	K	Y	A	A	C
I	L	I	L	N	L	N	A	D	L	N	B	G	P	U	D	N	U	Y	E	E
C	E	N	T	R	A	L	P	R	O	C	E	S	S	I	N	G	U	N	I	T
L	W	T	L	N	B	G	P	I	L	N	B	G	P	E	T	T	U	N	R	G
A	P	E	L	N	B	G	P	V	S	D	A	R	R	E	N	N	A	C	S	I
N	E	R	L	N	B	G	P	E	L	N	B	G	P	X	A	S	U	M	E	V
M	O	N	I	T	O	R	L	N	B	G	P	E	I	R	P	T	I	C	A	E
G	R	B	K	T	M	U	A	Q	H	N	Y	A	E	A	E	N	M	S	G	N
A	M	P	T	I	C	A	P	T	I	C	A	M	E	R	A	K	T	R	U	B
N	L	O	P	T	I	C	A	T	I	A	A	P	T	I	C	A	A	Y	S	Y
A	A	O	U	S	E	O	P	T	I	C	A	L	D	I	S	C	I	E	T	G
M	S	O	L	S	P	T	I	C	A	P	T	I	C	A	E	R	U	T	P	O
A	N	L	A	B	E	N	G	P	U	S	T	E	R	T	Y	U	I	O	O	S

- |          |           |
|----------|-----------|
| 1. _____ | 6. _____  |
| 2. _____ | 7. _____  |
| 3. _____ | 8. _____  |
| 4. _____ | 9. _____  |
| 5. _____ | 10. _____ |



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11. \_\_\_\_\_
12. \_\_\_\_\_
13. \_\_\_\_\_
14. \_\_\_\_\_
15. \_\_\_\_\_

### ACTIVITY 3

**Directions:** Group the hardware components identified in Activity 2 as input devices, output devices, processing device and/or storage devices. Write your answer on the provided circle.

Input Devices

Output Devices

Processing Device

Storage Devices



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## REFLECTION

What do you think are the importance of the different computer devices?

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**KEY TO CORRECTIONS** (*Copy for Teachers*)

S	D	O	I	U	I	H	E	S	U	P	G	N	B	A	N	A
O	P	U	R	V	I	G	T	P	C	V	P	T	S	O	L	M
G	T	E	S	G	I	G	T	G	P	I	G	P	S	U	V	A
Y	S	Y	A	I	C	A	T	I	A	T	I	C	A	T	I	N
B	U	B	K	R	E	M	E	C	A	T	I	C	A	T	I	A
N	G	N	M	S	E	A	E	A	N	H	A	U	A	T	K	U
E	A	E	I	C	A	E	I	E	P	G	P	L	O	M	I	M
V	E	V	M	E	X	V	S	G	P	N	G	P	L	N	T	N
I	S	I	A	C	E	N	A	R	B	E	D	A	S	N	B	A
G	R	G	T	U	N	P	T	G	P	L	N	G	P	L	N	T
E	E	E	N	G	S	S	I	S	S	E	C	H	P	A	L	H
E	E	E	N	G	S	S	I	S	S	E	C	H	P	A	L	H
C	A	A	Y	A	A	K	N	K	S	H	L	M	B	G	P	H
A	S	A	H	S	A	L	C	O	F	A	O	S	A	O	F	A
R	N	R	U	N	S	A	H	A	E	D	S	A	H	A	E	D
H	A	H	O	S	A	E	T	B	L	E	T	B	L	E	T	B
N	A	N	G	W	A	M	C	H	T	G	W	A	M	C	H	T
R	B	R	C	N	I	L	W	C	N	I	L	W	C	N	I	L
D	D	D	E	G	N	Z	E	B	E	S	I	Z	E	B	E	S
D	D	D	E	G	N	Z	E	B	E	S	I	Z	E	B	E	S
I	I	I	G	L	I	A	E	G	L	I	A	E	G	L	I	A
S	S	S	R	D	M	B	O	A	B	E	F	K	T	Y	B	O
R	A	I	R	A	I	E	N	C	H	E	N	C	H	E	N	C

REVEAL THE HARDWARE COMPONENTS OF COMPUTER

Answer on the role of the computer system may vary.

**ACTIVITY NO. 2**

10. CHARACTERISTIC
9. UNITATION
8. CHARACTERISTIC
7. UNITATION
6. CHARACTERISTIC
5. UNITATION
4. CHARACTERISTIC
3. CHARACTERISTIC
2. UNITATION
1. CHARACTERISTIC

**ACTIVITY NO. 4**



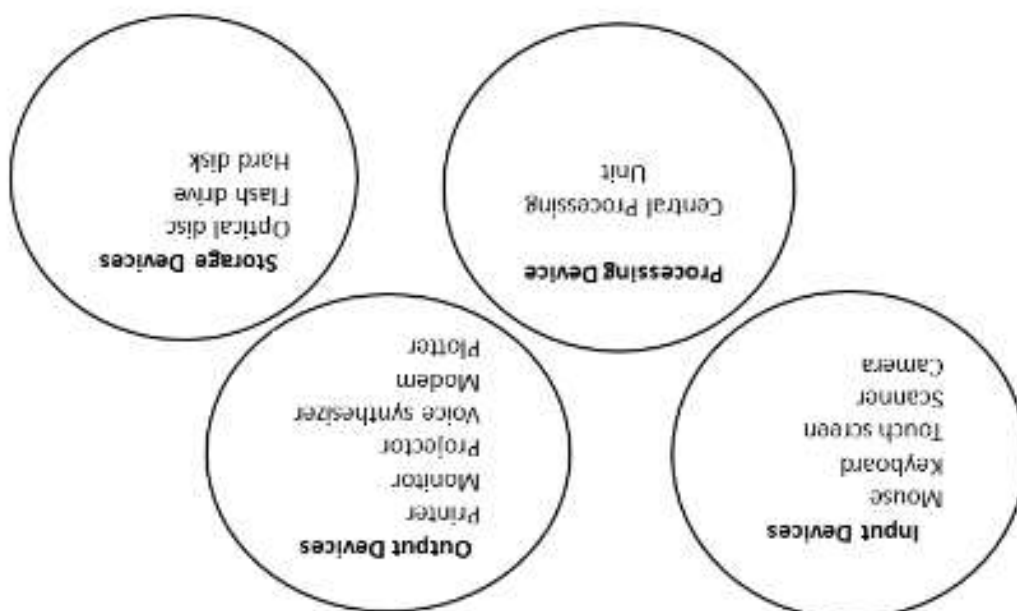
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**ACTIVITY NO. 3**  
*Some of the devices may fall into input device or output device.*



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