## Computer Basics Study Guide

<u>CPU (Central Processing Unit)</u> – This is the brain of the computer. The central processing unit, motherboard, hard drive, memory, etc. are all contained in the computer case...everything that makes the computer work.

<u>Monitor</u> – A device that displays the signals of the computer. Today, monitors are typically thin or slimline LCD displays.

<u>Keyboard</u> – A panel of keys used to operate a computer. It is the primary way we enter data into a computer.

<u>Mouse</u> – a hand-operated electronic device that controls the coordinates of a cursor or pointer on your computer screen as you move it around on a pad. An optical mouse has an optical light on the bottom to control the cursor or pointer. A mechanical mouse has a ball on the bottom that rolls to control the cursor or pointer.

<u>Printer</u> – A machine connected to a computer used to print text or pictures onto paper.

<u>Scanner</u> – a device that captures images from photographic prints, posters, magazine pages, and similar sources for computer editing and display.



**Computer**: An electronic device that can store, retrieve, and process data.

Kinds of Computers: Desktop, laptop, tablets, smartphones, and even some gaming consoles and

TVs

2 Styles of Computers: PC and MAC

## **2 Parts to Computers: Hardware and Software**

<u>Hardware</u> – The physical components of a computer that you can see and touch. Examples: Monitor, CPU, Keyboard, Mouse, Printer, and Scanner

<u>Input Devices</u> – Any peripheral (piece of computer hardware equipment) used to provide data and control signals to an information processing system such as a computer. This is how we get information into the computer. Examples of input devices include keyboards, mice, scanners, digital cameras and joysticks.

<u>Output Devices</u> – Any piece of computer hardware equipment used to communicate the results of data processing carried out by the computer and converts the electronically generated information into human-readable form. This is how we get information out of the computer. Examples: Monitor, Printer

<u>Software</u> – A set of instructions that tells the computer what to do. Software applications are designed for a specific purpose. Examples: Microsoft Word, Microsoft PowerPoint, Games, Internet Explorer, Windows operating system

The MOST important piece of software is the **operating system** because it allows us to communicate with the computer, allows the computer to boot up, and manages the computer's memory and resources. The operating system we use on PCs is <u>Windows</u>. Every computer must have an operating system before any other software applications can be installed.

<u>Cloud Storage</u> – Data and files are stored on Internet servers so that you can access them remotely. This means once you've uploaded and saved your files through a site on the Internet (like DropBox), you can access those files from anywhere in the world as long as you have Internet connection.

## **Inside the Computer**

Inside the computer case, you will find all the important pieces that make a computer work. There is a central processing unit, motherboard, hard drive, and other components such as network card, sound card, and RAM.

<u>Hard Drive</u>: The **hard drive** is the **data center** of the computer. This is where the software is installed, and it's also where your documents and other files are stored. The hard drive is **long-term storage**, which means the data is still saved even if you turn the computer off or unplug it.

**RAM**: RAM is your system's **short-term memory**. Whenever your computer performs calculations or opens a software application, it temporarily stores the data in the RAM until it is needed. The more RAM you have, the more programs you can open at the same time.