WARM UP

Is your computer fast enough to run all your applications?

Discuss with your students two topics: The velocity of processors in terms of frequency (Hz) and the number of cores. Memory also plays an important role in this matter. You can distinguish between RAM Memory, the conventional memory used to store data and instructions and the Cache Memory, which is a small ultra fast memory inside the processor, used to store the next instructions which are going to be executed.

How often do you exchange your computer for a faster one?

According to Moore's Law, the number of transistors that can be placed inexpensively on an integrated circuit doubles approximately every two years. So that can be an acceptable time to replace your computer.

Have you ever opened the case of your computer?

Assembling and disassembling your computer is as easy as assembling and disassembling IKEA furniture. Encourage your students to study the inside of their computer and learn all components in it.

WORKING WITH THE TEXT

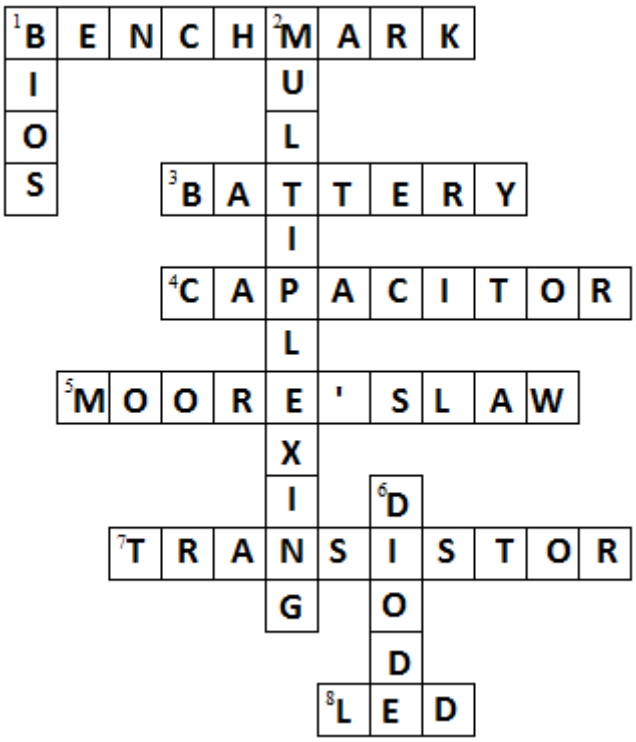
1.-

a) provides the electrical connections by which the other components of the system communicate.
b) Hard disks drives and Solid-state drives.
c) Are cleared.
d) It carries out the instructions of a computer program by performing the basic arithmetic, logical, control and input/output (I/O) operations specified by the instructions.
e) No, it keeps data inside the computer for later use and remains persistent even when the computer has no power.
f) It supplies power to all the components in the computer.
g) Parallel ATA (also called IDE), Serial ATA (SATA), SCSI, Serial Attached SCSI, and Fiber Channel.

3.-

a) 3.5 GHz b) 8GB c) 2TB d) SATA3 e)2400MHz f)7200RPM

VOCABULARY



Transistor: a device used to amplify or switch electronic signals
Diode: two-terminal electronic component that conducts electric current in only one direction
Moore's law: The quantity of transistors that can be placed on an integrated circuit has doubled approximately every two years
Led: light emitting diode
Bios: basic input output system chip.
Battery: a device with two or more electrochemical cells that store chemical energy
Capacitor: a device that stores energy between a pair of conductors
Multiplexing: when multiple signals go through one channel
Benchmark: the result of running a computer program to assess performance

PRACTICE

1.-

a.- In the earliest computers, programmers wrote programs in machine code.

b.- A bit is the smallest unit of data in a computer.

c.- Graphene has greater electron mobility than silicon.

d.- This motherboard supports the latest technologies.

e.- A multi-core processor develops more efficient simultaneous processing of multiple tasks.

f.- Your virus protection has to be the best.

2.-

Workstations are more powerful than desktops.

Netbooks are cheaper than laptops.

Desktops are the most common computers.

Pad computers are trendier than PDAs.

Accept all correct sentences.

3.- Accept all correct answers.

Examples:

a.- The more bandwidth the system bus has, the faster the communication between the memory and the processor will be.

b.- The less latency your RAM has, the faster the access to data cells will be.

c.- The more memory the graphic card has, the higher video definition you will get.

d.- The more GHz the processor has, the more heat you will need to dissipate .

e.- The more time you spend testing the program, the better the final product will be.

REMEMBER

Accept all correct sentences.

e.g. Too many pop-up windows are displayed simultaneously.

I have saved enough files.

There are too many files in the waste basket.

SPEAKING

Roleplay: Student A is a university student who has recently bought a printer, but he/she seems to have some problems with it. Student B is the shop assistant who sold him/her the product. What is the conversation held between the two of them?

Key words:

Student A	**Student B**
Cartridge / smudged characters / skip lines	Receipt / technician / testing period / malfunction

LISTENING
TRANSCRIPTION

MSI Z170A GAMING PRO
The MSI Z17OA is a gaming motherboard with a lot of new exciting features:

It has a 6th Gen Intel Core i3/i5/i7 processor, Intel LGA-1151 and an Intel Z170 Chipset.

This board has enhanced connectivity with USB 3.0 gen 2. So, you can push all your connections to the maximum level.

It has 4 DIMM, maximum 64 GB up to DDR4-3600 of memory and 4 SATA 6 GB/s.

MSI has included integrated devices such as: 1 HDMI port and 1 DVI-D port; It has too an Intel I219 -V Gigabit LAN with turbo M.2 slot.

According to MSI this board has an AMI UEFI BIOS with 128 Mb flash ROM.
MSI Z170A GAMING PRO can support Windows 7, 8.1, 10 and has 3 PCIe, 3.0 x16 slots.

The back panel allows you to connect external devices such as: PS/2 keyboard/ mouse port, USB 2.0 and 3.1 ports , DVI-D, HDMI and other devices

ASUS Z97 PRO WI-FI/USB 3.1

Maybe The Asus Z97 Is Perfect For You because it is basically a motherboard which is designed for gamers.

This motherboard is Ultra-fast 10Gb/s USB 3.1 built in to the board, M.2 & SATA Express which will Speed up your system with lightning-fast 10Gb/s transfer speed and to connect to the Internet it provides you an 802.11ac Wi-Fi.

It's targeted at all your current 4th gen CPUs; it will also fully support the devil's canyon CPU's as well so it is compatible with all Intel LGA 1150 CPU's. The 4 RAM's will support dual channel memory with up to 3400 MHz when over clocking. The BIOS Type is AMI.

There are plenty of expansion slots for you to choose from including 2 PCIe x 16 slots that work in x 8 mode during SLI crossfire setups.

The rear ports include PS2 combo port, HDMI, gigabit LAN, USB 3.0 and USB 2.0 and an 8 channel audio output.

Its Expansion Slots is 4 x DIMM 240-pin and Storage Interfaces SATA-600 -connectors: 2 x 7pin Serial ATA - 2 devices.

The High-class ASUS GPU Increase technology lets you speed up Z97-PRO GAMER's integrated GPU for extreme graphics show safely and easily via a user-friendly interface.

This board has a Chipset Type Intel Z97 Express.

http://listoftech.com/best-gaming-motherboards/#p3

MOTHERBOARD	**MSI Z170A GAMING PRO**	**ASUS Z97 PRO WI-FI/USB 3.1**
SOCKET	Intel LGA-1151	Intel LGA 1150
CHIPSET	Intel Z170 Chipset	Intel Z97
MEMORY	maximum 64 GB up to DDR4-3600	4 RAM dual channel up to 3400 MHz
EXPANSION SLOTS	4 DIMM	4 x DIMM 240-pin
STORAGE	4 SATA 6 GB/s	SATA-600 -connectors: 2 x 7pin Serial ATA - 2 devices
INTEGRATED DEVICES	1 HDMI port, 1 DVI-D port	Ultra-fast 10Gb/s USB 3.1 SATA Express 802.11ac Wi-Fi
BACK PANEL I/O CONNECTORS	PS/2 keyboard/ mouse port, USB 2.0 and 3.1 ports , DVI-D, HDMI	PS2 combo port, HDMI, gigabit LAN, USB 3.0 and USB 2.0 and an 8 channel audio output
BIOS	AMI UEFI with 128 Mb flash ROM	AMI