# Computer Studies 10 – Computer Parts

The goal of this assignment is for you to make an explanation for the parts of a computer. You will make this website with HTML. One of your group members will be the photographer. This person’s job is to get high quality photos of each of the parts of the machine, for all of the group members to make their website afterwards (individual).

#### If you are the photographer:

* Before you start, make sure your phone’s photo format is set to “Most compatible” or “JPEG”.
On iPhone: Settings – Camera – Formats
* As soon as you start, take a photo so that you know what it looks like with everything fully built.
* After you finish putting the machine back together, e-mail your group members the photos.

## Taking Apart the Computer

Make sure the box is unplugged so you don’t get zapped!

Remove the following parts (in no particular order):

* Hard drive
* SATA cables
* System memory (RAM)
* Processor plastic vent / Heat sink
* Power Supply
* Motherboard

### Possible De-Merits

|  |  |
| --- | --- |
| Marks Lost | For |
| -1 to -5 | Computer will not boot Windows properly… and you can’t figure out why.(Depends on how much advice Mr. Hapke gives you)Mr. Hapke tells you if something is obviously wrong after you re-built the PCRacing through the steps, and being reckless with the hardware. Take your time! |
| -10 | Computer will not turn onParts left over after re-assemblyScrewdriver bit(s) lost |
| Instant Zero | Working on PC internals with power hooked upAny group member gets electrocuted |
| Teacher’s Discretion | Throwing computer partsIntentionally breaking thingsRuining another group’s work |

### Show Mr. Hapke When:

* All computer parts have been removed from the case
* All computer parts have been re-installed
* Computer has been connected to Keyboard/Monitor/etc. and you’ve started it.

# Content for Your Website

### Home Page (Index.html)

* Show what a computer looks like fully built.
* Introduce the purpose of this website.
* Make sure you provide links to get to each of the following pages on a menu.

### Peripherals Page

Show what needs to get hooked up to the back of the PC. Keyboard, Mouse, Monitor, Power, Networking etc.

Take a good photo of the back of your computer’s case. Label each of the different ports, and what they are for. Take photos of each of the different cables that you are hooking up.

### Building It Page

Show me how to build a computer from an empty case. You must show how and where each peripheral connects to the motherboard using arrows. Example: Hard Drive -> SATA Cable -> SATA port on the motherboard

* Motherboard
	+ Show the location of the screws
	+ Give a description of the important expansion slots, and what cards could be used in each type of slot (PCI, PCI-E x1, PCI-E x16)
	+ Show the CPU+Heat sink, etc.
	+ Show where the case’s power button, front usb ports, speaker, headphone jack, etc. connect.
	Take good pictures of each connector.
* Power Supply
	+ How does it mount to the case?
	+ Talk about the different power connectors, and where they need to connect to.
* Case Fan
	+ How does it mount to the case?
	+ How is it powered?
* System memory (RAM)
	+ Which parts of the RAM chips should I touch / not touch? Why?
	+ Explain the function of white tabs on the side of the RAM slots.
	+ Explain the procedure Mr. Hapke taught for installing RAM chips.
* Hard drive
	+ What cable is used to talk to the CPU?
	+ What is the difference between the Hard Drive and RAM?
	(ie: which component saves data while it is turned off?)

### Pricing Page

Design a computer using an online configurator such as Memory Express’s designer: <https://www.memoryexpress.com/Tool/Configurator>

Each group member should pick a different type of computer from these categories:

1. Regular Fancy Desktop for Emails and Surfing Websites, Must include 2 monitors
2. Gaming
3. Home Theater PC, Must include a TV
4. Graphic Design, Must include a tablet of some kind. Could be a Wacom tablet, or a Tablet monitor.

Make sure you have a Keyboard, Mouse and Screen (Monitor/TV).

Put your parts in a table so that it shows:

|  |  |  |
| --- | --- | --- |
| Type of Part |  Model  |  Price |
| Motherboard |  |  |
| RAM |  |  |
| etc… |  |  |

Each person can spend up to $2500 Canadian including tax. Show the total price after the table. You’ll need to have each part that you saw inside the PC.

I am looking for a new computer, not some old, used junk off Craigslist/eBay!