# Computers 9 – Computer Parts: Part B

The goal of this assignment is for you to make an explanation for the parts of a computer. You will make this document in a program of your choice: Word/PowerPoint/Publisher. 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 document afterwards (individual).

### Taking Apart The Computer

* Make sure the box is unplugged so you don’t get zapped!
* As soon as you remove the side of the case, take a photo so that you know what it looks like with everything intact. (This photo is more for you if you get confused, than for me.)
* Remove the following parts (in no particular order):
	+ Hard drive
	+ SATA cables
	+ System memory (RAM)
	+ Processor plastic vent / Heat sink
	+ Power Supply
	+ Motherboard

### Deliverable Requirements

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?)

Show me how to hook up a computer to the peripherals that are needed to use it. 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.

### Possible De-Merits

|  |  |
| --- | --- |
| Marks Lost | For |
| -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 workBeing a jerk |

### Rough Group Marks

|  |  |
| --- | --- |
| Score /25 | Description |
| 25 | Works perfectly first try |
| 22-24 | Small wiring errorYour group figures out the problem |
| 19-21 | Multiple wiring errorsYour group figures out the problem / Slight feedback from Mr. Hapke needed |
| $\leq $18 | Multiple wiring errorsSignificant feedback from Mr. Hapke needed |

### Show Mr. Hapke When:

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