Activity Sheet: Building a PC

**Activity #1 (Identifying components)**

Identify all of these computer parts. Once you are confident you have found them all call over the instructor to point out each part.

RAM (Random Access Memory): These memory sticks are found in parallel of each other on the motherboard.

Motherboard: The large main board where all of the components connect to.

CPU/APU (Central Processing Unit): This is the main processor on your motherboard. (**Hint it is located under the CPU/APU cooler)**

CPU cooler: Large aluminum and/or copper fins that is placed on top of the CPU or APU to disperse heat.

GPU (Graphics processing Unit): If you do not have an APU this will be a card plugged into one of the PCI slots of your motherboard.

Sounds Card: If you have one it will be plugged into one of your PCI slots of your motherboard.

Wireless Card: If this is not built into your motherboard it will be plugged into one of your PCI slots of your motherboard.

CD/DVD/Blu-ray Drive: Typically found on the front of your computer case with a SATA cable connecting it to the motherboard.

Hard Drive: rectangular device often hidden on your case that connects to your motherboard with a SATA cable.

Cooling Fans: Fans are located throughout the computer case to bring in cool air and push out hot air.

PSU (Power Supply): Large square/rectangular device with many power cords coming out of it to power your components.

**Activity #2 (Disassembly)**

1. Use your smart phone to take pictures of the computer assembled that way you can look back at the pictures for reference during assembly.
2. Open up your computer
3. Disconnect all cords to every computer component
4. Carefully remove all computer components that are not secured by a screw.
   1. Remember to ground yourself by touching metal before you handle any computer component.
   2. Put these parts in a safe location away from where you are working to avoid damaging them.
5. Locate your paper and pen. Create a circle and label what computer component that circle is for.
6. Remove the screws from a component and place them in the designated circle.
7. Remove the component carefully after all of the screws have been removed.
8. Repeat steps 5-7 for each component.
9. If your computer is dirty this is the best time to clean it with compressed air.

**Activity #3 (Assembly)**

1. If you remember which order you removed components, please place them back in that order if not use the following order
2. Attach the CPU cooler back onto the motherboard and CPU
   1. Remember to ground yourself before handling components
3. Securely screw the motherboard to the case.
4. Attach the power supply, fans, and other components that need screws to be secured to the computer.
5. Install PCI card such as GPUs, wireless card, sound cards, etc.
6. Install the RAM
7. Install the hard drive, optical drive and any other components left.
8. Reconnect the power supply cords to all components
9. Reconnect all SATA from your hard drives and optical drives to the motherboard.
10. Double check all of your connections
11. Double check that all screws have been used
12. Test the computer to power on
    1. If the computer fails, to work properly go back and double check all components and wire connections
13. When the computer functions properly shut it off and close up the case.