Introduction to Computers
Group Activities

Organize students into groups to complete the following group activities:

1. **What is hardware, what is software?**
   A common problem for students is to understand what is happening when they save a document they have created with the computer. Knowing that the removable storage device is just a container for their work and that it is not a hard disk (hard drive) is important. The hard disk is an internally mounted disk in their computer. If one student wants to carry a file away from the computer, she must understand she needs to insert a removable storage device and instruct the computer to save to it. If another intends to leave the file on the computer he is using, he instructs the computer to save the file to the hard disk. Hardware refers to the physical parts of a computer including any associated devices e.g. printers, scanners or removable storage devices. Hardware is usually encased in metal or plastic to protect its digital circuitry.

   Removable storage devices e.g. memory sticks are common examples of hardware with the contents contained on them being distinguished as Software.

   Students might use memory sticks when preparing and collecting work for a group project. Some examples are:

   - A teacher delivers a presentation on the project topic to their class. Students can copy this presentation to a memory stick and refer to it during homework assignments.

   - Students on a field trip take numerous digital photos and notes. These photos can be stored on a memory stick to be added to the groups' research project.

   - A student working on a related homework assignment can copy their notes to a computer. They can transfer their new files to a memory stick and produce them in class the following day.

   - Each group of students needs to hand-in their project work. Their combined images and text files can be easily transferred to a single classroom computer using their memory sticks

2. **Prominent People in the History of Computers**
   Students have learned about people who are part of the history and development of the computer industry. A fun way to approach this activity is to assign one name to each student. Have each student create a page that includes a graphic with a short discussion of the person and that person's contribution to the computer field. These reports can be printed to create a class book or a Web site linking each student's page.

   People to research include Blaise Pascal, Charles Babbage, Ada Lovelace, Herman Hollerith, John Bardeen, Joseph Jacquard, William Shockley, Walter Brittain, Ted Hoff, Robert Noyce, Jack Kilby, Georg Scheutz, Grace Hopper, Gottfried Leibniz, George Stibitz, Konrad Zuse, Howard Aiken, Alan Kay, John von Neumann, Presper Eckert, John Mauchly, Alan Turing, John Atanasoff, Donald Knuth, Ed Roberts, Gordon Moore, and Bill Gates.

3. **Collage of Processor-Dependent Devices**
   Many items students use in their lives contain processor chips. Have students work in groups to create a collage of these items using pictures from magazines, newspapers, and catalogs. Another option is to use an online photo collage creator, such as Photovisi* or ScrapWalls*.