This is a tentative plan for the Hour of Hardware event on April 1 from 3:20-4:30p.

Setup

Unplug and set aside computers, keyboards and mice for computers 23, 24 and 25 to allow the table in the center of the room to be used as a workbench for the students.

Presentation will be loaded into computer 26 so it can be displayed on the projector.

Sections

1. Safety
    a. Never take apart a computer while it's plugged in.
    b. Don't shuffle your feet when you walk, you might kill the computer. Static electricity will damage computer parts.
2. Inputs and Outputs
    a. What is an input?
        i. An input is a way to give information to the computer.
        ii. Some examples are keyboard, mouse, microphone.
    b. What is an output?
        i. An output is a way for the computer to give information to the person using it.
        ii. Some examples are monitor, printer, speaker
    c. What ports do you see on the front of the computer?
        i. 2 USB ports (input and output)
        ii. Headphone jack (output)
        iii. Microphone jack (input)
        iv. DVD drive (input)
        v. Power button (input)
        vi. Lights (well you don't see them, but they're there)
    d. What ports do you see on the back of the computer?
        i. Power cable plug (not input or output, just power)
        ii. Speaker/microphone jack (input and output)
        iii. Speaker jack (output)
        iv. 6 USB ports (input and output)
        v. Network cable port (input)
        vi. Printer port (output)
        vii. Video port (output)
        viii. Serial Port (input and output)
3. Boot up process
    a. We will compare some of the parts of a computer to a student doing homework.
        i. Processor = Student's brain.
        ii. Motherboard = Student's body.
        iii. Hard drive/DVD drive = bookshelf or homework folder.
        iv. Memory = desk or table

4. Open the computer by pulling on the tab on the top of the computer and removing the side. What do we see?
    a. Motherboard (allows all the pieces to communicate with each other)
    b. Power Supply (converts power from outlet to usable power for pieces. Where do the cables lead to?)
    c. DVD drive
    d. Hard drive (under the DVD drive)
    e. What is that big black box? (Spoiler: It's the processor, heatsink and fan)
        i. Loosen the 2 screws on the sides of the black box.
        ii. Box will open with the hinge being on the "L" side of "DELL" then it can be pulled out of the computer. Adults may have to do this part.
    f. Remove processor (Processor is a microchip that is the brains of the computer)
5. Data Storage
    a. Look at the DVD drive, there are 2 cables going to it. What are those 2 cables?
        i. Large cable is for power
        ii. Small cable is to allow access to data on the DVD.
    b. To remove DVD drive, pull on blue tab at top of the case and push on the front of the DVD drive. Slide it back and pull it out. Unplug cables.
    c. To remove hard drive, press in blue tabs on sides and press on front of hard drive. Slide it back and pull it out. Unplug cables.
6. Memory
    a. RAM (random access memory) is where information is stored when the processor is working on the information.
    b. To remove a stick of memory, press down on levers on sides of stick. Memory stick will pop up. Remove memory stick.
7. Answer some of the questions from the students before reassembling the computer.
8. Assemble computer in reverse order.
    a. Memory stick needs to line up and be pressed firmly into slot (Adults may have to do this)
    b. Attach cables to hard drive and slide hard drive into place until blue tabs click.
    c. Attach cables to DVD drive and slide it into place until it clicks.
    d. Place processor back on pad. Do not force it, it should line up. Use lever to secure processor.
    e. Place heatsink box back in computer. Have students screw the screws back into place.
    f. Attach side to computer.
    g. If there is still time, have students hook the computers up to a monitor and keyboard to make sure it works.