



What is in a Computer?

Instructional Days: 1-2 days

Topic Description: Students will learn that computers are made of hardware, and that we use software as a set of instructions for the hardware.

Objectives:

The student will:

- Learn about different hardware parts and their basic functions
- Learn about software
- Understand that software is used to control the hardware to create a desired result

Outline of the Lesson and Teaching Strategies:

- Discuss motivation and context
 - Watch the Intro video: "Inside Your Computer"
- Introduce the students to hardware
 - Read the introduction that explains hardware in the context of secret agents
 - Read the profiles of each type of hardware to the class
- Complete the "Hardware Expert" worksheet
 - The worksheet can be an individual exercise or a group one
 - Introduce the activity
 - Optional: print out the source slides from the "Meet Team Hardware" presentation so the students have a written reference for what each type of hardware does.
- Introduce the students to software
 - Start with the opening discussion, "What is Software?"
 - Have students come up with software that they can think of and share their answers with the class

Lesson Plan: What is in a Computer?

- Complete the “PB&J Computer” activity
 - Explain the basics of the activity (refer to the Instructor’s Handout linked at the top of the page)
 - Have students complete their handouts
 - Act out the student’s instructions as specified on the Instructor’s Handout, and follow any other suggestions on the handout.
 - Consider the discussion questions in the activity debrief with the class

Resources:

- All the resources including the worksheets are available on the What is a Computer Overview page of the muddX website.