**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

# 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.