

Dissecting a Computer

TOPIC: BASIC KNOWLEDGE OF COMPUTING SYSTEMS

GRADES: 3-5

LESSON DURATION: 2-5 HOURS

SOFT SKILLS: COLLABORATION, PROBLEM SOLVING, GRIT, COMMUNICATION

Introduction:

- This lesson plan requires the use of old, retired devices. The teacher will have to ask for donations. This lesson plan is also technical and would best be completed with the addition of adult/high school mentors with background knowledge of computing hardware.
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Learning Outcome:

- Students will identify the parts of a computer through disassembly and reassembly of the device in a lab environment.
 - Students will develop a basic knowledge to troubleshoot when problems occur.
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Materials:

- Old desktop computers (not plugged in)
 - Screwdrivers
 - Safety equipment (goggles, gloves, aprons)
 - Volunteers/mentors
 - Lab worksheet
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Activities:

1. This lesson requires the teacher to have access to old devices/computers. Teacher will also need parent volunteers or high school mentors to help with this activity.
2. This lesson is designed as a science lab. The dissection will occur on a computing device. The teacher should divide the class into small groups. Teacher has discretion as to which devices can be dissected. The lab included is for the dissection of a classic desktop computer. Each group should have a parent volunteer or mentor.
3. Assign students to a group of 5-6 members with one adult mentor in each group. Students and mentors should have safety goggles, gloves, and an apron. Each group member should be given a lab sheet to complete.
4. [Lab worksheet is available here.](#)
5. Additional Information: If the teacher would like an online reference of parts location, [this lesson plan labels each part.](#) (Lesson plan available from the USNA website)

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