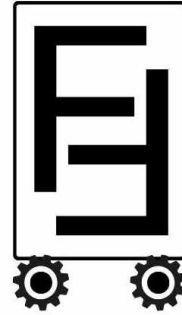


FIX FORWARD LESSON PLAN



Name: Take Apart Party

Grade(s): all ages

Lesson Focus and Goals:

In this lesson students will disassemble objects to learn about their construction, functionality, and the engineering principles behind them. This activity will encourage hands-on learning, critical thinking, and problem-solving.

Materials Needed:

- discarded items (electrical cords cut)
- screwdrivers and pliers
- safety glasses
- small containers for sorting parts

Learning Objectives:

Students will be able to use tools to dismantle an object. Students will begin to understand the relationship between parts and their functions.

Structure / Activity:

Gather a number of items that are unable to be repaired and discuss with the class. If an item can't be fixed, is that considered a failure? How can we learn from these items by taking them apart?

Let the students use the tools. If the students start to struggle ask open-ended questions to get them going again ("How do you think this comes apart?" or "Where do you want to start?") If needed guide the students, but avoid taking over. Encourage students to observe the parts, their connections, and how they interact. Older students can document their findings through sketches, notes, or digital photography.

Note: When sourcing items to take apart make sure not to get anything with glass or hazardous substances, good items to look for are: portable CD/tape players, VCRs, alarm clocks, clock radio, answering machines, etc.

Assessment:

Students can present their findings to the class, with their understanding of the object's design and functionality. Older students could produce a written report summarizing their observations, discoveries, and reflections.



Students use tools to take apart a sewing machine as a supplemental activity to a Repair Cafe held at the Roberts C. Parker School.

