



# Everyday Engineering

## Take Aparts

### What you need:

- Something to take apart! This can be an old electronic like a VCR or landline phone, broken radio or record player, or a no longer needed keyboard. For safety make sure to take out any batteries, avoid items with glass, and always wear protective eyewear.\*
- Tools! You don't need all of these but here are the tools we've found helpful for most any Take Apart project:
  - Phillips head screwdriver
  - Flathead screwdriver
  - Pliers
  - Small prybar
  - Wirecutters
  - Flashlight

\* Goggles or other protective eyewear must be worn when using tools of any kind.

### What you do:

Open up your item! A great first step is to look for any screws holding an item together. Then, you can identify the proper tool for the situation. Taking apart an item can take some time, but it's a great opportunity to practice how to properly and safely use tools. Remember, "lefty loosey" and "right tighty" with screws.



### Things to think about:

- Is one tool easier to use than another?
- Are there parts you recognize? Things like gears, wires, or springs are often found in devices.
- Which parts are connected? How are they connected?
- If you have more than one thing to take apart, look for similar parts and pieces across technology. Does a VCR have similar things in it compared to a corded phone?
- How does the item compare to a newer version of it? An example is how does an old phone look compared to a new one? Do you think the same pieces are inside?
- Finally, if you want an extra challenge you can try putting it back together!

*Be sure to properly recycle any electronic items when you're all done.  
Check for your local town or city for e-waste recycling programs.*