



Take Apart

Opening up a toy or appliance can be a valuable learning experience.

Related exhibits: all

Time: 5 to 30 minutes depending on how complicated the item is and individual interest.

Ages: 10 and up (5 and up with parental assistance).

Staff: Floor staff or volunteer.

Safety issues: Proper safety gear, such as eye protection, for handling tools, and instruction on proper use of screwdrivers. Cut any electrical cords prior to taking apart. Watch for small parts as they are removed.

Materials:

- Various old or broken toys, or other items such as tape recorders, old cameras, radios, etc.
- Assorted screwdrivers (generally need more small and mid-sized Phillips head)
- Safety goggles
- Cups or bowls to hold small parts as they are removed from the toy.

Procedure:

1. Ask participants if they have ever taken anything apart. What was it and what did they discover? Are they curious about what is inside something?
2. Allow visitors to select items to take apart.
3. Discuss and demonstrate proper tool use and safety equipment. Show the different types of screwdrivers (flathead vs. Phillips) and how to tighten or loosen a screw (the old “righty tighty, lefty loosey” rhyme)
4. Provide each person or group with a cup or bowl to place small parts.
5. Provide assistance with extra tight screws, parts that don’t want to come apart, etc.
6. Encourage visitors to figure out what parts do and how things work.



Science Content:

The activity allows participants to identify mechanisms and how parts work together. Relating the parts in the toys and the parts in the exhibition should reinforce understanding of how the mechanisms work.

Extensions:

Put Together: For simple items, it is interesting to put the item back together and see if it still works or, even better, is fixed.

Toy Clinic: Have a special day for visitors to bring a broken toy to your museum. Supply the tools and work space to take it apart. Can they figure out why it doesn’t work?