



Dissect an Appliance

PLAN

- Help Scouts find old appliances to dissect. Keep in mind that these appliances may never work again.
- Consider that some appliances or equipment, like microwaves, televisions and computer monitors, have sections that should not be taken apart due to electrical risks. Mechanical equipment may be more interesting for youth to take apart and easier to understand.
- Some good options include a toaster, computer tower or CD player.



SAFETY TIP

- Everyone involved in this Adventure should wear safety glasses at all times.
- Keep in mind that some appliances or equipment, like microwaves, televisions or computer monitors, have sections that should not be taken apart due to electrical risks. Be sure to obey all warning labels.
- Some appliances may have sharp parts or blades, and should be approached with caution.
- Appliances should be disconnected from any battery or electrical supply before taking them apart.

DO

Activity #1: Imagine the design

- Prompt Scouts to think about simple machines and how they can work together.
- Remind Scouts that this is only a hypothesis and does not have to be exact.

Activity #2: Take it apart

- Allow Scouts to work independently, only offering support when a group seems stuck.
- Ask Scouts questions about the parts of their appliances, prompting further understanding of how the appliance works.
- Scouts should come up with three to five unanswered questions to be answered at the next meeting.

(continued)





DO

Activity #3 and #4

- Encourage Scouts to discuss their ideas with each other, and collaborate on how to improve their appliances.

Activity #5: Make something new

- Encourage Scouts to be creative.
- Remind them that this appliance does not have to work, but should represent a possible solution to a common problem or an improvement of the original appliance.

SUGGESTED TIMING:

- Planning – 10 minutes
- Safety Discussion – 5 minutes
- Imagining and drawing the sketch of the appliance – 15 minutes
- Taking the appliance apart – 60 minutes
- Discussion and Research – 20 minutes
- Revising the explanations – 10 minutes
- Make something new – 30 minutes
- Review – 15 minutes

