



P.O. Box 219 • Batavia, IL 60510
(800) 452-1261 • Fax (866) 452-1436
www.flinnsci.com • E-mail: flinn@flinnsci.com
© 2011 Flinn Scientific, Inc. All Rights Reserved.

FLINN
SCIENTIFIC, INC.
"Your Safer Source for Science Supplies"

Publication No. 10707

Crush the Can Demonstration

Introduction

Here's a pressure-packed demonstration that will convince students that air exerts significant pressure!

Concepts

- Pressure differential
- Atmospheric pressure

Materials

Aluminum beverage can, 12-oz, several	Large bucket
Bunsen burner	Tap water
Support stand and ring	Tongs

Safety Precautions

Be careful of the hot can and the steam created by heating the water in the can. Wear goggles and protective gloves during the demonstration.

Procedure

1. Clear off the demonstration area, it may get wet.
2. Rinse out an empty 12-oz aluminum beverage can.
3. Set up a Bunsen burner underneath a ring and support stand.
4. Fill the bucket or large container with water so it is about half-full.
5. Add approximately 5–10 mL of tap water to the beverage can.
6. Place the aluminum beverage can on the ring and heat the can until the water begins to boil.
7. Allow steam (or the condensed water vapor students associate with steam) to fill the can and begin to rise out of the can.
8. Let the steam escape from the can for about 1–2 minutes. Point out the steam to the students.
9. Turn off the heat.
10. Immediately, pick up the can using tongs and flip it upside-down into the bucket of water. This step may require some practice—the key is to seal off the opening of the can as quickly as possible with the water in the bucket.
11. The can will immediately be crushed, making a loud noise and sending water splashing out of the bucket.

Tips

- Have several cans cleaned and ready to go, your students will want you to repeat this demonstration because it will happen too fast. They will also be amazed at how fast it occurs.
- Practice this demonstration first before showing it to the students. The noise and water splash may surprise you the first time.
- Make sure the water boils long enough to fill the can with water vapor.