

JR-SCIENTISTS

IMPLODING CAN

This fascinating (and loud) experiment is based on the science of atmospheric pressure.

INSTRUCTIONS

STEP 1: Put about two tablespoons of water in an empty aluminum can.

STEP 2: Set the can on a stove burner or over a flame until the the water in the can turns to steam.

ADULTS ONLY PLEASE!!

STEP 3: Use an oven mitt or tongs to carefully remove the steaming can from the heat source and immediately turn the can upside down into a bowl of cold water and prepare for a loud POP as the can implodes!

THE SCIENCE

As the water in the can gets hot, it changes to steam. The steam inside will fill the can. When you flip the can and put it in cold water, the steam condenses quickly, so the can is mostly empty, and has low pressure inside of it. The difference between the low pressure inside and the pressure of the air outside creates an inward force on the walls of the can, causing it to implode!

SUPPLIES

Empty aluminum can

Water

Stove

Tongs

Bowl of ice water



Imploding Can Observations

Use this worksheet to process and evaluate your work.



How did your can behave when it was heating? What did you hear?

What happened when you put it in the ice bath?

Why do you think the can behaved the way it did?

What did you learn?
