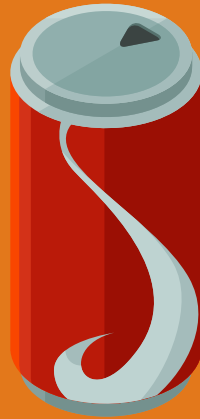


SCIENCE EXPERIMENT!

Putting static electricity to work!



CAN YOU ROLL A SODA CAN
WITHOUT ACTUALLY TOUCHING IT?

Dr. Nicole Grimes

WWW.DRNICOLEGRIMES.COM

SODA CAN CHALLENGE!



MATERIALS:

- * an empty soda can
- * blown-up balloon
- * a head of hair

INSTRUCTIONS:

1. Place the can on its side on a flat smooth surface like a table or a smooth floor.
2. Rub the blown up balloon back and forth through your hair really fast.
3. Hold the balloon close to the can without actually touching the can. The can will start to roll towards the balloon without you even touching it!



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How does it Work?

All matter/objects are made up of tiny particles called atoms..

inside atoms are even smaller particles called electrons. When you rub the balloon through your hair, electrons build up on the surface of the balloon. Electrons have a negative charge.

When electrons build up, this is called **STATIC ELECTRICITY** which means "non-moving electricity" It's the zap you feel when you grab a door handle sometimes!



Electrons (in large numbers) have the power to pull very light objects with a positive charge) toward them – like the soda can!

This kid-friendly Youtube video nails it:
<https://www.youtube.com/watch?v=5TAIUCYMIQ>

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Follow ups!

TRY THESE TOO!

1. **A**dd water to the soda can! Experiment: How much water can you put in the can until the balloon can't pull it anymore?
2. While you've got the balloon out, tear up tiny bits of paper, tissue or use confetti. Rub the balloon in your hair again and bring it close to the tiny pieces. See what happens!



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Follow ups!



Charge a balloon or a plastic hair comb with electrons and bring it near a stream of water from the faucet!

How far can you make the water "magically" bend?!



HAVE FUN!

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HAVE FUN!

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