



## Curiosity Guide #710

### Magical Science

Accompanies Curious Crew, Season 7, Episode 10 (#710)

#### Refillable Soda Can

Investigation #1

#### Description

Pour a drink out of an empty soda can!

#### Materials

- Full aluminum soda can
- Needle or safety pin
- Bowl
- Paper
- Black marker
- Scissors
- A friend
- Drinking glass

#### Procedure

- 1) Prepare the can ahead of time by drawing the shape of the pop can opening on a piece of paper with black marker. Cut the shape out.
- 2) Slide the black paper cutout under the end of the pop tab so it appears that the can is open.
- 3) Place the full can into a large bowl and pierce the upper side with a pin. Let a third of the liquid in the can exit through the opening. Pay special attention to where the hole is.
- 4) Gently collapse the sides of the can, placing the can on its side with the pierced hole facing upward. The can should look like a crushed, empty can.

- 5) Point out the empty can to your friend. When you pick the can up, cover the hole with your thumb and begin to rotate the can around in your hand.
- 6) What do you notice?
- 7) Subtly wet the tip of your finger and slide your finger over the top so that the paper sticks to your finger. Drop the paper sneakily to the floor.
- 8) Casually open the soda and pour the contents into a glass.

## Results

## Explanation

The trick is the illusion that the can is empty in the beginning. Seeing the can crushed and "open" convinces your friend that the can must be empty. The can inflates because of the carbonation in the soda. When the can moves around and the hole is covered, pressure begins to build up. The additional pressure causes more gaseous collisions inside the can and makes some of the dents pop back out. The final illusion of the closed tab suddenly being open momentarily confuses your friend so that you can drop the paper without your friend noticing.

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