



Curiosity Guide #606

Springs

Accompanies Curious Crew, Season 6, Episode 6 (#606)

Spring Snakes in a Can

Investigation #2

Description

Scare your friend with this springy trick!

Materials

- Snakes in a Can
- A friend

Procedure

- 1) Ask a friend to help you open the can.
- 2) What happened?

My Results

Explanation

Snakes in a can is a classic prank, but the science behind it makes perfect sense. Each of the snakes is made with a compression spring. Compression springs usually are made from heavy gauge material and are not wound as tightly as tension springs are when they are manufactured. This allows the coils to compress closer together when a force acts on the spring. In this case, when the snakes are compressed and placed in the tube, the lid holds the coils in place. The springs are compressed and are therefore holding a lot of elastic potential energy. When the lid is opened, the springs extend outward, transfer the potential energy to kinetic energy, and the snakes spring out of the container.

Investigate further. On the internet or in your library, locate a graphic of different kinds of springs.

Engineers have developed many different springs for different purposes, whether the spring is for absorbing car bumps, winding up tape measures, bouncing on a trampoline, engaging the brakes in a car, keeping a wind-up watch running, or measuring the weight of your caught fish. Springs are usually made of metal. When springs get twisted, squished, or pulled by a force, they store that energy until the force is gone and then bounce back to their original shape. Hey, great spring action!

Parents and Educators: use #CuriousCrew #CuriosityGuide to share what your Curious Crew learned!



Curious Crew is a production of Michigan State University.

Learn more at WKAR.org.

© MSU Board of Trustees. All rights reserved.