You will need:

- Cans of soda at room temperature
- Instant-read thermometer
- 2 styrofoam coolers
- Ice cubes
- Water
- Clock or timer
- Plastic wrap

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THE OHIO STATE UNIVERSITY EXTENSION

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Chilling soda fast

Have you ever grabbed a soda and realized that it's warm? Lucky for you, using our knowledge of heat transfer, we can cool it down at record speed.

Try it yourself.

We're testing some cooling methods: Ice-only bath and ice-water bath

1. **Set up the coolers:**
   - Cooler #1 gets filled with ice only, enough to cover the cans.
   - Cooler #2 gets ice plus water, just until the ice is covered.

2. **Let's get testing!**
   - Record the temperature of everything. Each soda can, the ice-only bath, and the ice-water bath.
   - Then place one can in each of the coolers.
   - Start your timer and record the time and temperature every five minutes.
   - Open each can quickly, check with the thermometer, and cover the opening with plastic wrap so it doesn't evaporate too much.
   - And remember: don't keep the lid off the coolers for too long, that'll mess up your results.

3. **Watch the sodas cool.**
   - Make a graph with the time on the bottom and temperature on the side.
   - Each line on the graph shows how quickly each method works.
   - Mark which one cooled the fastest.