



## CAN CRUSHER

### SCIENCE SAFETY

PLEASE follow these safety precautions when doing any science experiment.

- **ALWAYS** have an adult present.
- **ALWAYS** wear the correct safety gear while doing any experiment.
- **NEVER** eat or drink anything while doing any experiment.
- **REMEMBER** experiments may require marbles, small balls, balloons, and other small parts. Those objects could become a CHOKING HAZARD. Adults are to perform those experiments using these objects. Any child can choke or suffocate on uninflated or broken balloons. Keep uninflated or broken balloons away from children.

### INGREDIENTS

- Empty Soda Can
- Hot Plate
- Bowl
- Water
- Ice
- Tongs

### INSTRUCTIONS

**STEP 1:** Fill the bowl with ice and water.

**STEP 2:** Place one tablespoon of water into the empty soda can. Turn on the hot plate and place the soda can onto the hot plate.

**STEP 3:** Wait a few minutes for the water, in the can, to boil.

**STEP 4:** Using the tongs, grasp the sides of the soda can, quickly flip the soda can, and dip it immediately into the cold water. Make observations and explain how this process is similar to how sunlight, on Earth's surface, creates weather.

### EXPLANATION

When the soda can is turned upside down and submerged into the cold water, the air inside the soda can cools and condenses. This decreases the air pressure, on the inside of the soda can, causing the higher pressure, on the outside of the soda can, to crush the soda can.



### SCIENCE BACKGROUND

Sunlight warms Earth's surface. Weather is the combination of sunlight, wind, snow or rain, and temperature in a particular region at a particular time. Clouds form on Earth when warm, moist air rises and cools to the dew point. Water vapor then condenses onto tiny particles in the air like smoke and dust, forming a cloud. An area of sinking air is called a high pressure, which usually brings nice weather. An area of rising air is called a low pressure, which usually brings unsettled weather. Meteorologists record patterns of the weather, across different times and areas, so they can make predictions about what kind of weather might happen next.

### I CAN STATEMENT

- ✓ I can make observations to determine the effects of sunlight on Earth's surface.

### NEXT GENERATION SCIENCE STANDARDS CONNECTION

K – Weather and Climate | Patterns