

Station 1: Adiabatic Decompression

Materials:

- Can of compressed air
- Infrared thermometer
- Graph paper

Procedure:

1. Using the digital thermometer, take the initial temperature of the can and record it on the table on the activity sheet. **Take all measurements with the laser dot in the center of the can.**
2. Keeping the thermometer pointed at the can, allow gas to spray out of the can for 1 minute. Record the temperature reading every 10 seconds.
3. After 1 minute, stop spraying gas from the can. Continue to take temperature readings at 10 second intervals for another 2 minutes.
4. Use the data you have collected to create a graph of temperature versus time.