

What Do You Think Now?

At the beginning of the activity you were asked:

- What is canning?
- How does it preserve foods?

Now that you have completed this activity, how would you explain to someone who had never done any home canning what is happening during the process?

Chem Essential Questions

What does it mean?

Chemistry explains a macroscopic phenomenon (what you observe) with a description of what happens at the nanoscopic level (atoms and molecules) using symbolic structures as a way to communicate. Complete the chart below in your *Active Chemistry* log.

MACRO	NANO	SYMBOLIC
<i>Think back to the demonstration given in Part A of this activity. After cooling, the soda can was crushed by the pressure exerted by air molecules. Describe the event.</i>	<i>Explain in words what occurred inside of the soda can from the perspective of the atoms and molecules.</i>	<i>A way of representing the relation between pressure and volume is through Boyle's Law. Describe this mathematically.</i>

How do you know?

What evidence do you have that increasing the pressure exerted on a gas decreases its volume?

Why do you believe?

There are kitchen appliances like the popcorn popper that make use of Boyle's Law. Would popcorn kernels popped in New York City (1.0 atm, 760 torr) be larger or smaller than identical kernels popped at higher altitude in Denver (0.83 atm, 630 torr)? Explain your answer.

Why should you care?

Explaining the use of a kitchen appliance that makes use of Boyle's Law will make your cooking show more interesting.