

## What Do You Think Now?

At the beginning of the activity you were asked:

- What happens to the temperature of water when you boil it?

Now that you have completed this activity, how would you answer the question?

## 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>In Step 3, as you continued to apply heat to the water sample, describe what happened to the temperature of the water.</i>	<i>Describe in words what was happening at the molecular level as more and more heat was applied to the water. Include both the increase in temperature of the water and the change of phase.</i>	<i>An equation can be used to describe the changes in the water as energy is supplied. It has to do with the change in the temperature of the water. Write down each equation and explain what each variable represents.</i>

### How do you know?

Describe how you know that the temperature of water does not rise above 100°C. What happens to the water as you continue to heat it when it reaches 100°C?

### Why do you believe?

Foods are often cooked in boiling water or hot oil. Steam is also used to cook many foods. List a cooking example for each one of these processes.

### Why should you care?

A description of any phase changes occurring during the preparation of food in a cooking-show segment will enhance your audiences' appreciation of the chemistry involved. How can you describe the cooking of pasta or heating milk for hot chocolate in an entertaining and informative way?