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**Gas Laws Soda Bottle Lab**

**Materials**

* Balloon
* Empty Soda Bottle
* Ice bath
* Warm Water

**Prelab Questions**

1. What is Charles’ Law?
2. What is Boyle’s Law?
3. What is in your “empty” soda bottle? Is it really empty?

**Part 1.**

1. Place balloon on opening of soda bottle
2. Write a hypothesis for the following question: What will happen when you lightly squeeze the bottle? (remember the proper way of writing a hypothesis - \*\*think of the gas laws for the because part\*\*)

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1. Gently squeeze your bottle and observe what happens. Write down your observations.

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1. Was your hypothesis correct? Explain why or why not. Make sure to use the gas laws to explain.

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**Part B.**

1. Take balloon off of your soda bottle and fill the bottle 1/3 of the way up with warm water. Replace the balloon.
2. Let the bottle sit with warm water in it for 1 minute
3. While waiting, write a hypothesis for the following question: What do you think will happen when you place the bottle with the warm water into an ice bath? (hint: think back to the gas laws)

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1. Place the bottle into the ice bath and write down your observations

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1. Was your hypothesis correct? Explain why or why not. Make sure to use the gas laws to explain.

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