

Demonstration: Flask and green water.

Ms. Kim put a little bit of water in a glass flask and then corked it with a stopper that has a glass pipe with tube in it (it's still open to the air). She then heated up the flask on the hot plate until she could see steam coming out of the pipe.

- a. As Ms. Kim heats up the flask, what is happening to the number of gas particles? Why?
- b. Where do the gas particles go?
- c. What do we know about the pressure inside the glass flask because the flask is open to the air?

Ms. Kim then quickly removed the flask from the hot plate, inverting the flask so that the opening to the tube was under the cool green water she had put in a basin.

- a. What do you predict will happen?
- b. What did you actually observe?

Why?

- a. When Ms. Kim removed the flask from the hot plate, what happened to the temperature of the gas?
- b. What happened to the number of gas particles? Why? Where did the gas particles go?
- c. What happened to the pressure inside the glass flask?

Explain in full sentences WHY you observed what you did. You should include words like "temperature" and "pressure" in your explanation.

Demonstration: Can demo

Ms. Kim put a little water in the can and then heated up the can on the hot plate until she could see steam coming out of it.

- a. As Ms. Kim heats up the can, what is happening to the number of gas particles? Why?
- b. Where do the gas particles go?
- c. What do we know about the pressure inside the can because the can is open to the air?

Ms. Kim then quickly removed the can from the hot plate, inverting the can so that the opening was under the ice water she had put in a basin.

- a. What do you predict will happen?
- b. What did you actually observe?

Why?

- a. When Ms. Kim removed the can from the hot plate, what happened to the temperature of the gas?
- b. What happened to the number of gas particles? Why? Where did the gas particles go?
- c. What happened to the pressure inside the aluminum can?

Explain in full sentences WHY you observed what you did. You should include words like “temperature” and “pressure” in your explanation.

