Laboratory 3 – Kinetic Molecular Theory

Purpose: To investigate the behavior of gases as predicted by the kinetic molecular theory.

Materials:

Soda cans	hot plate
Tongs	Large beaker
Ice	water
Balloon	250 mL Erlenmeyer flask

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Procedure A: Crushing Cans

1. Add a few milliliters of water to an empty can.
2. Place the can on a hot plate.
3. Allow the water to boil until steam is created.
4. QUICKLY grab the can with tongs and invert it into a beaker of ice water. Record your results.

Procedure B: Balloon and a Flask

1. Add about 50mL of water to the flask.
2. Attach the balloon over the mouth of the flask
3. Heat the flask using the hot plate.
4. Heat the water until it has boiled for about a minute.
5. Record your results.

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Observations/Data, Procedure A: Crushing Cans

Observations/Data, Procedure B: Balloon and a Flask

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Results/Conclusions

1. Explain how the kinetic molecular theory relates to each experiment.

2. Explain what happened with pressure in the balloon procedure.

3. Explain what happened with pressure in the can procedure.