Name: ____________________________  

Balloon and Flask

Prelab question
Read the procedure and predict what will happen. Justify your prediction.

Procedure
1. Pour about 25 mL of water into the flask.
2. Heat the water on a hot plate until it boils. Allow it to boil for about two more minutes. Turn off the hot plate. There should still be water in the flask.
3. Using tongs or something to protect your hands, remove the flask from the hot plate and pour the water out.
4. Immediately place a balloon over the mouth of the flask.
5. Place the flask on the table and record observations.

Observations

Analysis
Using arrows, sketch the molecules inside and outside of the flask that make up the air during four points in this experiment (see below). Add the balloon and what it looks like, when appropriate. Use arrows to indicate particles, and longer arrows to indicate faster moving molecules.

Room temperature  Boiling water  With balloon, after heating  With balloon, cooled

Conclusion
What did you learn from this experiment about temperature, pressure, and volume of gases?