The Magic Balloon Natural Gas Experiment

In this Gas Smart experiment, you’ll learn how natural gas takes up space. Natural gas companies use special tools to fit gas inside pipelines so it can move to other locations. Follow the directions carefully, and ask your teacher for help.

Materials needed:
- Empty bottle
- Balloon (don’t blow it up)
- Funnel
- Baking soda
- Vinegar

Directions:
1) Collect all materials listed above.
2) Using the funnel, fill the body part of the balloon with baking soda. Don’t stretch it too much.
3) Wipe off the funnel.
4) Using the clean funnel, fill the bottle about 1/4-full with vinegar.
5) Stretch the balloon over the open end of the bottle. Let the balloon hang down on the side of the bottle so none of the baking soda spills into the bottle.
6) Make sure the balloon is tightly wrapped around the bottle’s base.
7) Quickly lift the balloon so the baking soda falls into the bottle.

Lab Questions:
1) What do you think is happening inside the bottle?
2) As the bubbles pop, they are releasing gas into the air. Where is that gas going?
3) Is the balloon filling up with gas? It’s taking up space, right?