





# WHAT YOU WILL NEED:

- Peeps (or other marshmallows)
- Vacuum food container



## MARSHMALLOW VACUUM

#### **Overview and Objective**

Boyle's law is a gas law. When temperature is consistent, then the pressure and volume of a gas have an inverse relationship. This means that when you reduce one, the other will increase.

In this experiment you will test how the volume, or size, of the marshmallow changes as you adjust the amount of pressure in the container.

#### **Process:**

- 1. Place 1 Peep, or marshmallow, in a vacuum food container.
- 2. Close with lid to seal container.
- 3. Pump the air out of the container and watch what happens to the marshmallow as you remove air.
- 4. Then watch what happens to the marshmallow as you let air back into the container.

### What have you found?

Did the size of the marshmallow change?

What are other items could you test? Try to think of things that have a lot of air in them. Here is a list of ideas that may be fun: a piece of bread, bubble wrap, shaving cream, a balloon, slime, or a Twinkie.

Do the items respond differently or the same? Which has the most significant reaction?

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