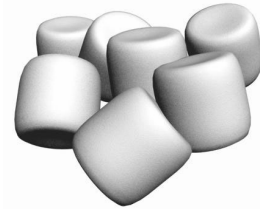


Amazing Marshmallows

Investigate the effects of air pressure in this highly visual demonstration.



What you need:

- glass bottle (a clean, dry wine bottle works well)
- marshmallows
- wine-saver vacuum pump and stopper

What to do:

1. Put a handful of marshmallows into the glass bottle.
2. Place the wine-saver stopper in the neck of the bottle.
3. Watch the marshmallows carefully as you remove the air from the bottle with the wine-saver vacuum pump. What happens to them?
4. Remember to watch the marshmallows when you let the air back in to the bottle.

What is happening?



Marshmallows have small air bubbles inside them. Usually, the air pressure outside the marshmallow is the same as the air pressure in the bubbles (atmospheric pressure). When we pump the air out of the bottle, we reduce the air pressure pushing on the outside of the marshmallows. The air in the bubbles pushes out and makes the marshmallow grow. When you let the air back in to the bottle, the pressure outside the marshmallows goes back to normal and they shrink to normal size.

Tips:

Small marshmallows are the best, but don't use them too much or they become too stretched. The best glass bottles are clear, colourless ones.