

# Demo Guide: **Cloud in a Bottle**



## Materials:

- Soft plastic bottle (not hard plastic or metal)
- About ½ inch to an inch or water in the bottle (water in photo is colored to be visible, color is not necessary)
- Aerosol spray (could be hair spray, deodorant spray, body spray, etc)

## Instructions:

- 1) Make sure your bottle is prepared. It needs to have a lid. It needs to have a ½ inch to 1 inch or water. It needs to be able to be squeezed.



- 2) Squirt an aerosol (spray deodorant, hair spray, etc) into the bottle and put on the lid.

- 3) Squeeze the bottle with the lid on. Squeezing forces the air pressure in the bottle to change as air molecules are forced to be closer together. Look for a cloud as you release your squeeze.



- 4) You may need to squeeze and unsqueeze several times before a cloud is visible. If you don't see one after many squeezes try adding a little more aerosol. You can also try putting dark paper behind your bottle to see more easily. The cloud will look like a fog in the bottle.

## Tell me about clouds:

*Clouds need water, aerosols, and a change in air pressure to form. Aerosols in the atmosphere can be dust, pollen, or smoke. Clouds come in many shapes, sizes and heights.*

*Fog is a type of cloud that is at ground level. Cumulonimbus are thunderstorm clouds that can be very tall. They can reach heights of over 50,000 feet. Weather forecasters can see clouds move by looking at satellite information.*