



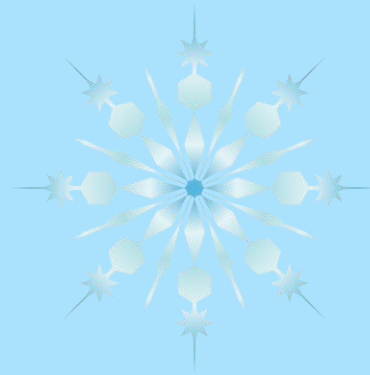
EXPLORE LAB SCIENCE

Snowstorm in a Bottle

This science experiment will allow you to create a snowstorm in a bottle in just a few short steps. The best part of this experiment is that you can make this snowstorm in a bottle in the warm comfort of your own home!

What you will need:

- 1 clear jar or bottle
- Baby oil or vegetable oil
- Alka-Seltzer tablets
- White paint
- Food coloring(optional)



Procedure

- 1.) Fill up the jar with about $\frac{1}{4}$ cup of water. Add a small squirt of white paint and carefully mix. The water should now be a milky color.
- 2.) Add $\frac{2}{3}$ cup of baby oil to the mixture. Feel free to add glitter and food coloring if you would like.
- 3.) Break up one Alka-Seltzer tablet into tiny pieces and add to the bottle slowly. Watch what happens next!



What's the Science behind the Snowstorm in a Bottle?



Water and oil do not mix because the structure of water is polar while the structure of oil is non polar. A **polar** molecule is when one side of the molecule is positively charged and the other side of the molecule is charged. **Non-polar** molecules are neither negatively charged or positively charged. It is impossible to mix oil and water due to one of them being polar and the other being non-polar, they will never attract each other.

The Alka-Seltzer tablets contain baking soda. When dropped into the water, the Alka-Seltzer tablets dissolve and start to fizz up the bottle, creating carbon dioxide. The fizzy bubbles that are filled with carbon dioxide push the water mixture, but the oil forces the pressure to lower, this makes the water mixture go back down. This results in a snowstorm in a bottle!

