



## Snowstorm In a Jar

In this activity, students will use a glass jar to create their own snow globe, as common household substances of paint, baby oil and Alka-Seltzer tablets become a swirling snowstorm right before their eyes!

### Fun Facts:

Snow globes were invented in 1900 by an Austrian tradesman named Erwin Perzy I. Perzy was asked to develop an extra bright light source for use during surgery. He tried putting metal flakes into a glass globe filled with water and placing it in front of a lightbulb to magnify the light. The experiment failed when the metal flakes sunk to the bottom of the globe. Perzy, however, thought that the sinking flakes resembled falling snow and decided to replace them with white wax particles, creating the first snow globe. He applied for a patent and started a company that still exists today, making snow globes that are sold around the world.

### Learning Objective:

Create a solution to observe chemical reactions and the formation of layers as a result of liquid densities.



### Materials Needed:

- White liquid Tempera paint
- Mason jar or any other clear glass jar with lid
- 20 ounces of baby oil
- Alka-Seltzer tablets or any calcium carbonate antacid tablet
- Stirrer (plastic spoon, craft stick, etc.)
- Measuring cup
- Newspaper or plastic bag

### Procedure:

- Step 1: Place the newspaper or plastic bag under your glass container to prevent staining. Remove the lid from the jar.

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Step 2: Pour 2/3 cup of paint into the jar.

Step 3: Stir the paint in your jar.

Step 4: Fill the jar with baby oil until it is about three quarters full.

Step 5: Drop one or two Alka Seltzer tablets into the jar.

Step 6: Put the lid on the jar and watch your storm form.

### **Discussion Questions:**

*Has the paint and the oil mixed or separated?*

*What do you observe happening inside of your jar?*

*What is causing the paint to rise in your jar? (Alka-Seltzer reaction)*

*Why is the paint falling again after it rises? (denser than oil)*