

How to Make a Christmas Snow Globe Science Experiment



A homemade snow globe is a lesson in viscosity, light refraction, and gravity. You may also be able to sneak in a lesson about vortexes, as well!

The general design of a snow globe is that “snow” is added inside a jar and shaken. Then, the snow descends, and you can repeat the process.

But the science comes into play when you add glycerin to the water. Glycerin makes the liquid more viscous, which prevents the glitter from falling as fast.

Experiment with different levels of glycerin to find the perfect time for glitter fall!

The globe also distorts the image of the character inside the globe. That’s why changing the character’s position can change how it looks inside the snow globe.

Finally, kids can make a vortex inside their jars by swirling it around and watching the mini “tornado” form.

Supplies Needed:

Snow globe (a jar with a lid will work)

Mineral oil (if you use vegetable oil it will be yellow)

Glitter

Small plastic objects (Christmas tree, deer, snowman etc.)

Hot glue gun and glue sticks

Blue food coloring

Alka seltzer tablets

How to Make a Christmas Snow Globe

First, assemble your objects onto the snow globe floor. Fill the globe about 5/6 of the way with mineral oil. Fill the rest with water dyed blue.

Crumble an alka seltzer tablet into the globe.

Quickly screw on the lid as tightly as possible and flip it over.



The alka seltzer will react with the water and oil, creating a lava-like effect in the snow globe.

One word of caution, the pressure from the tablets can be too much for the globe after a while. It may start to leak. You can place a tray under the globe to catch the drips.

When your snow globe stops bubbling, add another tablet and repeat!

