

## **Station 2**

### **How To Make Fake Snow**

Polymer snow looks a lot like real snow, except you don't need mittens or a coat.

You can make fake snow using a common polymer. The fake snow is non-toxic, feels cool to the touch, lasts for days, and looks similar to the real thing.

**Difficulty:** Easy

**Time Required:** mere minutes

### **How does it work?**

Just mix a cup of water with a scoop of Insta-Snow polymer and within seconds, the liquid turns into a solid and then erupts into a fluffy white, snow-like material (no mixing required). Watch in amazement as it instantly expands up to 100 times its original volume. It's not sticky or clumpy like other Insta-Snow imitations. Insta-Snow® is the only brand of snow polymer that actually erupts into a fluffy white powder. Insta-Snow doesn't melt, it's long-lasting, and it's even reusable after it dries out. Perfect for holiday decorating.

### **What does it teach?**

Explore the ever-changing science of polymers as students experiment with Instant Snow. Each Insta-Snow product comes with an activity guide with suggestions for science fair projects, classroom demonstrations, experiment ideas,

and fun ways to explore the science of polymers. Insta-Snow, the original Instant Snow, is an amazing polymer that turns ordinary water into a white fluffy substance that looks like real snow! It's the latest technology used by movie makers to create incredibly realistic snow scenes.

### **Here's How:**

1. There are a couple of ways to get the ingredient necessary to make fake polymer snow. You can purchase the [fake snow](#) or you can harvest sodium polyacrylate from common household sources. You can find sodium polyacrylate inside [disposable diapers](#) or as crystals in a garden center, used to help keep soil moist.
2. All you need to do to make this type of fake snow is add water to the sodium polyacrylate. Add some water, mix the gel. Add more water until you have the desired amount of wetness. The gel will not dissolve. It's just a matter of how 'slushy' you want your snow.
3. Sodium polyacrylate 'snow' feels cool to the touch because it is mainly water. If you want to add more realism to the fake snow, you can refrigerate or freeze it. The gel will not melt. If it dries out, you can rehydrate it by adding water.

### **Tips:**

1. Fake snow is non-toxic, as you would expect from a material used in disposable diapers. However, don't purposely eat it. 'Non-toxic' is not the same as 'good for you'.

2. When you are done playing with fake snow, it's safe to throw it away.
3. If you want yellow snow (or some other color), you can mix food coloring into the fake snow.
4. If you want drier snow, you can reduce the amount of water the polymer can absorb by adding a small amount of salt.

### **What You Need:**

- sodium polyacrylate
- water

### **Another Explanation:**

Sodium polyacrylate is superabsorbent polymer and absorbs the water by a process called osmosis.

During osmosis the water molecules pass through the large polymer molecule that is sodium polyacrylate, causing the polymer to stretch and swell to a very large size.

You can observe the physical change that takes place by letting the water evaporate and the sodium polyacrylate will return to its original size.

Have fun by food coloring to the water, does that change the color of the fake snow? What happens if you use warm vs. cold water? What happens if you salt water?