



## Sudden Blue Snow

### Getting Ready

What's *Sudden Blue Snow*? Is it snow during a "blue moon"? (Look up "blue moon"!)

### Stuff to Make it Happen (Materials) *(Be careful with these chemicals!)*

ammonium hydroxide      copper sulfate      test tube      water\*  
# 0 stopper                  pipette                  goggles and gloves\*

### Making it Happen *(Wear your goggles and glove in this activity!)*

1. Goggles, aprons, and gloves please! This isn't really "snow", these are chemicals!  
BE CAREFUL, OK??? *Goggles and gloves are a must!*

2. Fill your test tube about half full of room temperature water.

3. Measure a fourth of a capful (about 1/4 teaspoon) of the copper sulfate. Pour this into the test tube. Put the stopper on tightly and mix gently until the copper sulfate is dissolved.

4. Open your ammonium hydroxide bottle. Be careful NOT to get the bottle too close to your nose. *It smells bad!!* Notice how clear it is. *Put the lid back on when you're finished!*

5. With your pipette, add 10-20 drops of the ammonium hydroxide to your test tube full of dissolved copper sulfate. Sing a Christmas song, ring some jingle bells, get a snow shovel, or whatever you feel like doing that's appropriate for a blue snowfall.

5. When you're finished pour the mixture down the drain with a lot of water behind it. Clean up all your equipment and put the lids on the chemicals and put them away!

### Understanding the Science

Notice how clear each solution was before you put them together? That's because both were **Solutions**, meaning things were **Dissolved** in the water. A solution has super tiny little particles surrounding each other, way too small for us to see. But when you poured them together a **Chemical Reaction** happened. (No doubt!) One of the new things you made was **Insoluble**, meaning it won't dissolve, cooperate, or work and play well with others. The chunks of this stuff were too big for the water to keep dissolved, so they just "fell out" of the solution. Chemists call this a **Precipitate**. You call it "blue snow".

### Let's Check the View! (Questions and Assessments)

1. What happened in these two solutions to show us a chemical reaction happened?

