



Super-Bouncy Slime

Everyone knows that when superheroes make slime, it needs to be super too! For this experiment, you'll be making three different slimes to see which one is the super-bounciest!

Collect:

- School glue
- Borax
- Baking Soda
- Regular spoon, plastic or metal
- 3 small bowls
- Measuring cups and spoons
- Paper towel

Procedures:

1. In one bowl, mix up a basic cross-linking bath:
 - 1 cup warm water
 - 1 tablespoon borax
 - 1 teaspoon baking soda
2. Measure out one teaspoon of school glue. Keep the glue in the teaspoon and lower it into the cross-linking bath to submerge the glue.
3. With a regular spoon, gently scrape the glue off the measuring spoon then use your fingers to gently squeeze and squish the glue together into a ball until it holds its shape.

Hint: If the ball is still sticky, try placing it back in the cross-linking bath a few times.

4. Remove the ball from the bath and pat it dry with a paper towel. Try bouncing it a few times on a flat surface. How does it bounce?
5. In another bowl, mix up a second cross-linking bath by reversing the measurements for the borax and baking soda; adding 1 teaspoon of borax and 1 tablespoon of baking soda to 1 cup of warm water.

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6. Follow the same directions as before to make a ball and test it out. Did the second bath make a bouncier ball or a less bouncy ball?
7. Now, it's up to you! In the third bowl, mix up your own cross-linking solution using different amount of warm water, borax, and baking soda. Make sure you write down the recipe! Make one last slime ball and test it out. Is this ball bouncier or less bouncy than the others?

What's happening?

A slime's ability to bounce has a lot to do with how its molecules are put together. Glue is a polymer and is made up of long chains of molecules. Normally, these chains slide past one another fairly easily; this is why glue flows out of the bottle. However, when mixed with borax, those molecules become tangled and create the substance we call slime. The baking soda in the cross-linking bath helps the glue firm up even more which helps the slime bounce.

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