

Bouncy Balls

Collect

- 2 bowls
- 4 tbsp warm water
- 1 tsp borax
- 1 tbsp cornstarch
- 1 tbsp liquid school glue
- measuring spoons
- craft stick or spoon
- food coloring (optional)
- glitter (optional)

Get mixing

1. In one bowl, combine 4 tablespoons of warm water and 1 teaspoon of borax. Stir to dissolve the borax.
2. Add a few drops of food coloring if you would like to color your bouncy ball.

Create a chemical reaction

1. Place 1 tablespoon of glue in a separate bowl.
2. Add 1/2 teaspoon of the borax mixture to the glue. Add 1 tablespoon of cornstarch. Do not stir yet!
3. Allow the ingredients to interact on their own for 10–15 seconds.
4. Mix them together with a craft stick or spoon until it becomes impossible to stir and forms a lump in the center of the bowl.
5. Take the lump out of the bowl and start molding it into a ball with your hands. The ball will start out sticky and messy, but will solidify as you knead it together.
6. If you would like, knead in glitter to make a shiny bouncy ball.

Get bouncing

1. Once the ball is less sticky, it's time to start bouncing! Does the ball bounce better on hard or soft surfaces? Does it bounce higher if the ball is warmer or colder?
2. Store your bouncy ball in a sealable plastic baggie and place it in the fridge.

What's happening?

When you mixed the borax and the glue, the chemical reaction formed long chain molecules called polymers. Store-bought bouncy balls are made of rubber, another material that is made of polymers. When the bouncy ball is stretched, these polymer chains uncoil and straighten. When released, the chains coil back up again. This makes the material stretchy and bouncy. When your ball bounces, it is squishing when it hits the ground, and as it bounces back up it is un-squishing.