

How to Make a Bouncy Ball

It's a simple toy that provides hours of enjoyment – the bouncy ball! When your child sees one in a gumball machine, he likely clamors for some change. You spend the 25 or 50 cents only to discover the ball has bounced away into some land where lost bouncy balls live, never to be seen again. What if your child could make his own bouncy ball? Scratch that. What if he could make a whole bunch of bouncy balls? Then you'd never have to worry about finding the one that got away, because there would be countless others to take its place. In this activity, you'll not only make your own bouncy balls at home, but your child will also learn how polymers are made.

What You Need:

- Glue
- Cornstarch
- Borax
- Lukewarm water
- Food coloring
- Heavy spoon that won't bend easily
- Measuring spoons
- 2 plastic containers (old margarine tubs work well)
- Plastic baggie with zip top
- Permanent marker
- Clock
- Ruler



What You Do:

1. Have your child add 2 tablespoons of lukewarm water to an empty plastic container. Help him measure $\frac{1}{2}$ teaspoon of Borax and add to the water. Stir until the Borax has dissolved completely.
2. If you want the balls to have a specific color, add a few drops of food coloring. How deep you want the color is up to you. For a darker, truer color, add more drops. For a more translucent color, add less.
3. Ask your child to measure one tablespoon of glue and dump it into the second empty plastic container.
4. Help him add $\frac{1}{2}$ teaspoon of the Borax and water solution as well as 1 tablespoon of cornstarch to the glue. Don't start stirring immediately. Wait 20 to 30 seconds to begin.
5. Now tell your child to stir, mixing the ingredients completely. When the mixture becomes too hard to stir, remove it from the plastic container and have your child knead it between his hands. He should begin to form the mixture into the shape of a ball.
6. The ball will start off being a little sticky, but it'll harden as it dries. Once it's dry, it should bounce. Set this ball aside and make additional balls until you have the perfect number.
7. After you're done bouncing, store the balls in the plastic baggie.

Did you know? Polymers are used to make a number of different products including all kinds of plastic items and even bulletproof vests.