



BOUNCING BALL

Overview and objective:

Students will use basic chemical techniques to make a bouncing ball. The mixture of glue with Borax and water produces a putty-like material called a **polymer**.

Presented by **BASF**
We create chemistry

A **polymer** is a substance that has a molecular structure consisting mainly or entirely of a large number of similar units bonded together.

WHAT YOU WILL NEED:

- Borax
- Lukewarm water
- Cornstarch
- Glue (Clear or white)
- 2 small mixing cups or plastic containers
- A stirring stick or a spoon
- Food coloring
- Safety goggles
- Safety gloves
- Adult supervision

Procedure:

1. Add 2 tablespoons of lukewarm water to an empty plastic container
2. Measure a half teaspoon of Borax and add it to the water. Stir until completely dissolved.
3. Add food coloring to mixture to make it a specific color. (OPTIONAL)
4. Pour the glue into one of the plastic cups. Add a few drops of food coloring to the glue and mix with one of the craft sticks until your desired color is achieved.
5. In the second cup, add one tablespoon of glue.
6. Add a half teaspoon of the Borax water solution from the first cup to the second cup.
7. Add one tablespoon of cornstarch to the second cup.
8. Wait 20 to 30 seconds and stir with a craft stick until fully mixed together and the mixture becomes very difficult to stir.
9. Mold the ball in your hands. It will be sticky at first but will become more solid as you roll it in your hands.
10. You now have a bouncy ball! Store your ball in an airtight container or Ziploc bag so it doesn't dry out and crumble.

Discussion:

- *Try bouncing your ball. How high does it go?*
- *Which two ingredients in the bouncing ball create a chemical reaction?*

