

Make a Bouncing Polymer Ball

Instructions for this activity came from the following web site
<http://chemistry.about.com/od/demonstrationsexperiments/ss/bounceball.htm>

The shorter version www.chemistry.about.com holds details of lots of simple experiments that can be done at home. As with any experiment care must be taken to follow the instructions and adult supervision must always be present.

Procedure

Each table will need –1 cup of Borax solution (see below), 1 bottle of glue, 1 empty cup per cub, 1 teaspoon per cub, 1 tablespoon per cub, 2 stirrers per cub and a bottle of food colour per table to match their six.

1. (1 per table) Pour 4 tablespoons warm water and 1 teaspoon borax powder into the cup labelled 'Borax Solution'. Stir the mixture to dissolve the borax. Add food colouring, if desired.
2. (per cub) Pour 1 tablespoon of glue into the cup labelled 'Ball Mixture'. Add 1/2 teaspoon of the borax solution you just made and 1 tablespoon of cornstarch. **Do not stir.** Allow the ingredients to interact on their own for 10-15 seconds and then stir them together to fully mix. Once the mixture becomes impossible to stir, take it out of the cup and start moulding the ball with your hands.
3. The ball will start out sticky and messy, but will solidify as you knead it.
4. Once the ball is less sticky, go ahead and bounce it!
5. You can store your plastic ball in a sealed Ziploc bag when you are finished playing with it.
6. Don't eat the materials used to make the ball or the ball itself. Wash your work area, utensils, and hands when you have completed this activity.