

IT BOUNCES IT STRETCHES

It can even...

by Andrea Denish

**You and a friend can make a polymer and explore its properties.
Give it a name of your own and make a mock TV commercial to show
friends and family.**

A **polymer** is a chemical substance characterized by repeating chains of molecules. Polymers behave in a very stable and predictable manner, making them useful in both scientific and household applications. You can find lots of polymers around your house. Polymers make up everything from fishing line, hair gel and nylon stockings to chewing gum, water bottles and baby diapers.

Polymers are important in everyday use because the **properties** of polymers are unique. A **property** is a way to describe the features of a material. For example, one property of the polymer found in modeling clay is that it is bendable. Use the recipe below to make a homemade polymer and then see what special properties you can discover. Ask an adult to help out.



Some polymers have long names like **Polytetrafluoroethylene**. We know this substance better as Teflon®. Teflon® is a polymer used to coat cooking pans. Its special property is that it does not stick to food.

Polymer Ingredients:

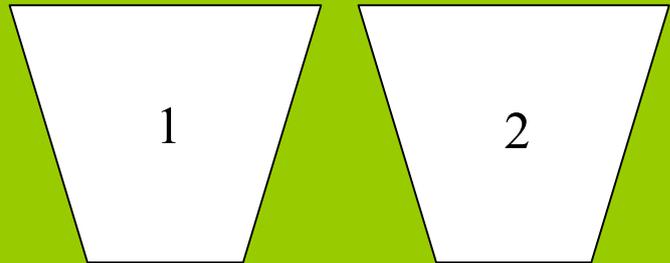
½ -teaspoon Borax detergent
2-tablespoons water
1-tablespoon liquid white school glue
1-tablespoon dry cornstarch
Food coloring (optional)

You Will Also Need:

Measuring spoons
2 paper cups
Craft stick or small spoon for mixing

Directions:

Label 2 paper cups; Cup 1 and Cup 2.



In Cup 1, combine the Borax powder and water. Stir with a spoon. The powder will not completely dissolve.

In Cup 2, mix liquid white glue and cornstarch together with a craft stick. Add 2-4 drops of food coloring if you wish. Next, add ½ teaspoon of the borax solution from Cup 1. Mix until all of the material is stuck to the craft stick. Remove the polymer from the craft stick and knead the material with your hands. Continue to handle the polymer by squeezing and pulling it for several minutes until it is no longer sticky.

Polymer Playtime:

Find the special properties in your newly created polymer. Can you make a mold of your hand? How long can you stretch it? Does it bounce? Can it lift a print from a newspaper?

Make a Mock TV Commercial:

Talk about the properties of the polymer that you created and make a pretend television advertisement. Dream up a suitable name and then make a short commercial to tell everyone why this polymer is a must-have product. Remember to repeat the name of the polymer several times and give examples of how it can be used. You can also make up a catchy jingle or song to help your audience remember your product. Have fun!!!