Make a Polymer

What is a Polymer?
A polymer is made up of tiny molecules in long, repeating chains. Think of a chain made out of construction paper links, or one made from paper clips hooked together. Polymers are all around us—even in our own bodies! Polymers are found in DNA, hair, cotton, paint, concrete, glass, and plastics.

With the help of a parent or teacher, you can make your own polymer with these simple supplies:
- White glue
- Water
- Powdered laundry detergent
- Small cup
- Teaspoon
- Spoon for stirring
- Paper towels

Try It
1. Place 1 teaspoon of glue into a small cup.
2. Add 1 teaspoon of water.
3. Add 1 teaspoon of powdered detergent.
4. Stir the mixture.
5. Add 2 teaspoons of glue.
6. Add 1 teaspoon of detergent.
7. Stir the mix until a white glob forms.
8. Take the glob out of the cup.
9. Place it between two paper towels.
10. Press down gently to soak up the water.
11. Examine your polymer and answer the questions below.

What does your polymer look like? ______________________________________
____________________________________________________________________
____________________________________________________________________

What does it feel like? ________________________________________________
____________________________________________________________________
____________________________________________________________________

Does it bounce? _____________________________________________________
Can you stretch it? ___________________________________________________
Can you mold it? ____________________________________________________

What words would you use to describe your polymer?
____________________________________________________________________
____________________________________________________________________
____________________________________________________________________

Explore It

Visit inventionatplay.org to learn about Stephanie Kwolek and her invention of a polymer called Kevlar®.