

Name _____

Date _____

Polymers

Pre-Lab:

Polymer-

Monomer-

Lab Procedure:

Materials:

Plastic cups
Borax powder
Liquid glue
Food coloring
Spoons (plastic or metal)

Procedure:

1. Fill two plastic cups halfway with water (roughly 4 ounces).
2. In the first cup, add 2 spoonfuls of borax powder. In the other cup, add 6 spoonfuls of borax powder. Stir both cups for about 2 minutes or until a cloudy solution is formed.
3. Now take 2 more plastic cups and fill them halfway with liquid glue.
4. Add a drop or 2 of food coloring to each cup.
5. In the first cup of glue, add a few (4-5) spoonfuls of the less concentrated borax-water solution. In the other cup, add a few (4-5) spoonfuls of the more concentrated borax-water solution.
6. Stir both mixtures vigorously for approximately 5 minutes.
7. After 5 minutes, you should have two ready-to-use polymers!

8. The polymer that was created with less borax should be easy to bend and fold. On the other hand, the polymer that was created with more borax should be much stiffer!

Observations:

Conclusions

1. What is a polymer?
2. Why was one polymer stiffer than the other? Does the stiffness depend on the amount of borax that is mixed in?

Bonus

3. Why did we use borax? What does it do to the molecules in the glue?