

Holiday Fair

Materials:

1. Warm water
2. 1 teaspoon of borax
3. $\frac{1}{2}$ cup glue
4. 1 popsicle stick (as a stir rod)
5. 1 cup with cap
6. 2 drops of dye
7. Add-ons (i.e. glitter)
8. Measurement spoons and beakers
9. Rubber ducky



Procedure:

1. Part 1: Create a mixture of borax and water
 - a. Add 1 cup of water to a bowl
 - b. Add 1 teaspoon of borax into the water bowl and mix
2. Part 2: Create a glue mixture
 - a. Add $\frac{1}{2}$ cup of clear glue into a new bowl
 - b. Add half a cup of water and mix
 - c. Sprinkle in dye and add-ons
3. Add borax mixture to the glue and knead with your hands
4. Divide the slime into portions for the cups
5. Keep the slime in the cups to keep from drying out
6. Add a cute rubber ducky for each

Sell for: \$5

The Science behind it:

Glue is a polymer, which means it is made of identical molecules and has characteristics of a liquid when you pour it (i.e. it takes the shape of the container).

Glue contains a chemical called polyvinyl acetate, a polymer that is runny when you mix it with water or vinegar. However, if you add borax, a crosslinker, it makes all of the glue molecules stick (or link) together in a big glob.

The sodium tetraborate in Borax is a cross-linking substance that makes glue molecules stick together.

Questions:

1. How can you make the polymer stretch the farthest?
2. Does the amount of Borax added change the slime?
3. What method of storage will make the polymer last the longest?
4. What brand of glue makes the stretchiest polymer?
5. Does the amount of water added to the glue affect the gooeyness of the slime?

More info:

- <https://temeculablogs.com/laundry-detergent-slime/>
- <https://www.wikihow.com/Make-Laundry-Detergent-Slime>
- <https://www.wrdw.com/content/news/The-Science-Behind-Slime-415314613.html>
- <https://www.acs.org/content/acs/en/education/whatischemistry/adventures-in-chemistry/experiments/slime.html>
- <http://kitchenpantryscientist.com/tag/slime/>
- <https://www.stevespanglerscience.com/lab/experiments/glue-borax-gak/>
- https://sciencebob.com/make_slime_with_borax/