

STEM Activity: Slime

Students study the chemical reaction that turns Glue into Slime.

Grade Range: 4th-8th

Time: 30-45 min

Synopsis: Glue is a polymer, a large molecule chain that is made up of smaller repeating molecular units. Ingredients in the contact lens solution and baking soda react to crosslink or connect the glue polymers together and make an even larger polymer. Students make observations how the reaction affects the properties.

Safety: Provide instructions before handing out ingredients. Remind students to avoid getting ingredients in eyes and mouth. Wash hands at the end of the experiment. At the end, collect slime in plastic bags and dispose.

Materials (individual):

Zip seal plastic bag

Glue (Glitter, Clear, White) – 3 teaspoons

Baking soda – ½ teaspoon

Contact lens solution – 1 teaspoon

Experiment:

1. Place 3 teaspoons of Glue into a plastic bag with a zip seal. Describe the glue.
2. Add ½ teaspoon of Baking Soda into plastic bag and seal. Mix the ingredients by placing the sealed bag between your palms and rubbing together. Make your observations. How is it the same and how is it different?
3. Open the bag and add 1 teaspoon of Contact Lens Solution. Seal the bag and mix the ingredients as before vigorously. Be patient, it might take time! Observe what happens and describe the change.
4. If you want, open the bag to handle the Glue Slime. Dispose of the Glue Slime in the plastic bag.

Discussion Questions:

If you were an inventor, what might you make using this new material?

How could you change this experiment? What could you do differently?

The Glue and Slime are both polymers – why do you think they have different properties?