

NATIONAL

AfterSchool

ASSOCIATION



THE AFTERSCHOOL GUIDE TO
**MAKING
SLIME**

It's gooey and oozy. It stretches and squishes. It's slime!

The National Afterschool Association designed this afterschool guide, along with youth support, to be all about slime. It is a compilation of a variety of slime and putty recipes to create with youth that are not only fun to make and manipulate, but engage STEM skills. The following information provides tips to maximize youth engagement and learning as they mix up these recipes.

As youth concoct these recipes, review the science concepts involved in the creation of slime. Share the following key points and encourage youth to investigate and discuss more about how slime works.

- Slime is a fluid polymer created by mixing a linking agent (sodium borate or Borax) and a polymer (glue).
- A polymer is a long chain of molecules made from thousands of molecules.
- When sodium borate is mixed with glue, it bonds to the polymer chains of the glue and causes the chains to stick together. This makes the glue thicker and more slime-like.

Learn more about polymers and how they work with Andy the Science Wiz's STEM Gem, Glue Slime.

Review the recipes prior to creation to become familiar with the materials and the quantities needed. Each recipe results in a small portion of the slime or putty. Adjust the quantity of materials to accommodate the number of youth participating to ensure all youth have a portion to manipulate. Consider dividing youth into small groups of three or four to create and share one batch of each recipe. Provide re-sealable plastic bags for each youth or a large sealed container for the group to store the slime, which can be taken home or used at a later time.

Provide youth the opportunity to lead the creation

of these recipes. Encourage them to facilitate each experience and provide guidance as needed. Invite all youth to participate at a level in which they feel most comfortable. Consider incorporating modifications to ensure these activities are inclusive of youth of all ability levels, including those with visual, hearing, intellectual or physical impairments. If you are uncertain how to modify an activity to ensure it is inclusive, ask those with impairments for their thoughts on the best approaches that work for them.

Encourage youth to consider each recipe as an experiment. Some recipes do not provide exact measures of ingredients. Youth should test and experiment with the measures of the ingredients to gain the desired outcomes. Remind youth that experimentation might lead to failure, however, much can be learned through failure.

It is important to follow general safety rules when working with chemicals, such as those used in these recipes. Explain and implement these precautions as youth create these slime recipes.

- Do not eat or drink any chemicals at any time*
- Do not touch or smell any chemicals at any time*
- Listen carefully and follow all directions
- Use both hands for stirring and pouring and keep mixing containers flat on the table while mixing
- Ask to have things passed instead of reaching across others
- Wash hands before and after working with chemicals
- Keep paper towels nearby to clean up spills

While creating slime and putty is fun in itself, much fun can be had through examination and play. Be sure to allow adequate time for youth to manipulate, explore, and discuss the properties of the slime and putty they have created. In addition, invite youth to create and experiment with their own recipes.

**Note: Contrary to youth development practices, two of these rules are stated in negative terms to communicate explicit safety expectations.*



METALLIC SLIME

MATERIAL(S) NEEDED:

4 oz. bottle of clear glue

Metallic paint

Borax, contact solution or laundry detergent

Water

Mixing bowl

Mixing spoon

Re-sealable plastic bags or sealed container

INSTRUCTIONS/HOW TO CREATE:

Invite youth to create metallic slime according to the following directions. As exact measurements are not provided, encourage youth to experiment with the amounts of each ingredient to achieve the desired consistency.

Pour about **one-half bottle of clear glue** into the bowl.

Add a small amount of water to the bowl of glue and mix well.

Add a **few drops of metallic paint** and stir until the paint is thoroughly mixed with the glue.

Pour a small amount of your chosen activator, either Borax, contact solution or laundry detergent, into the glue. Stir the mixture as the activator is added. Continue pouring a small amount of the activator into the mixture until it begins to thicken.

Knead the mixture for several minutes until the consistency becomes smooth and loses its stickiness.

Store the slime in re-sealable plastic bags or a sealed container for later use.





CLOUD SLIME

MATERIAL(S) NEEDED:

4 oz. bottle of Elmer's® glue

Shaving cream

Borax

Warm water

Paint, optional for color

2 mixing bowls

Mixing spoon

Measuring cup

Measuring spoons

Re-sealable plastic bags or sealed container

INSTRUCTIONS/HOW TO CREATE:

Invite youth to create cloud slime according to the following directions.

Pour **one bottle of glue** into a mixing bowl.

Add an **equal amount of shaving cream** to the glue and mix well.

Measure **1 cup of warm water** and pour into a second mixing bowl.

Measure **1 to 1 ½ tablespoon of Borax** and add to the water. Stir until the Borax is dissolved.

Slowly mix small amounts of the Borax and water solution to the glue and shaving cream mixture until it is no longer sticky. The entire Borax solution may not be needed.

Stir in a **few drops of paint** to color the slime, if desired.

Continue kneading the mixture as needed.

Store the slime in re-sealable plastic bags or a sealed container for later use.



ALIEN GOOP

MATERIAL(S) NEEDED:

Cornstarch

Borax

Elmer's® glue

Warm water

Green food coloring

2 mixing bowls

Measuring cups

Measuring spoons

Mixing spoons

Re-sealable plastic bags or sealed container

INSTRUCTIONS/HOW TO CREATE:

Invite youth to create alien goop according to the following directions.

Measure **¼ cup of cornstarch** and pour into a mixing bowl.

Measure **8 tablespoons of glue** and add to the cornstarch.

Mix well and set aside for later use.

Measure **¼ cup of warm water** and pour into a second bowl.

Measure **½ teaspoon of Borax** and add to the water.

Mix until the Borax has dissolved.

Add a **few drops of green food coloring** to the Borax solution.

Slowly pour the Borax solution into the cornstarch and glue mixture. Stir constantly for two minutes even after the goop forms.

Knead the mixture until it is smooth and stretchy and loses its stickiness.

Store the goop in re-sealable plastic bags or a sealed container for later use.





FLUFFY FOAM SLIME

MATERIAL(S) NEEDED:

White glue

Clear glue

Liquid hand soap

Liquid starch

Food coloring

Foam or Styrofoam™ beads

Measuring cups

Measuring spoons

Mixing bowl

Jumbo craft stick or mixing spoon

Re-sealable plastic bags or sealed container

INSTRUCTIONS/HOW TO CREATE:

Invite youth to create fluffy foam slime according to the following directions.

Measure **¼ cup of white glue** and pour into a mixing bowl.

Measure **1 tablespoon of clear glue** and add to the white glue.

Measure **¼ cup of liquid starch** and add to the glue mixture.

Add a **few drops of liquid hand soap and food coloring** to the starch and glue mixture.

Add some **foam beads** to the mixture and stir with a jumbo craft stick or mixing spoon.

Knead the mixture until it has reached the desired consistency.

Store the slime in re-sealable plastic bags or a sealed container for later use.





PLAY PUTTY

MATERIAL(S) NEEDED:

Elmer's® white glue-all

Liquid starch

Food coloring

Mixing bowl

Measuring cups

Measuring spoons

Mixing spoon

Re-sealable plastic bags or sealed container

INSTRUCTIONS/HOW TO CREATE:

Invite youth to create play putty according to the following directions.

Measure **½ cup of glue** and pour into the mixing bowl.

Measure **¼ cup of liquid starch** and set aside.

Add a **couple of drops of your desired color of food coloring** to the glue and mix.

Measure **1 tablespoon of liquid starch** from the ¼ cup previously set aside. Add to the glue and mix.

Continue adding and mixing **1 tablespoon of liquid starch** at a time to the glue. The glue will begin to thicken and separate from the sides of the bowl and lose its stickiness. A general rule for making play putty is to mix a ratio of **1 part liquid starch to 2 parts glue**.

Knead the putty for several minutes until it is a smooth and rubber-like.

Store the putty in re-sealable plastic bags or a sealed container for later use.





WATER SLIME

MATERIAL(S) NEEDED:

Borax

4 oz. bottle of clear glue

Warm water

Measuring cups

Measuring spoons

2 mixing bowls

Mixing spoon

Sealed container

Re-sealable plastic bags

INSTRUCTIONS/HOW TO CREATE:

Invite youth to create water slime according to the following directions.

Pour the **bottle of clear glue** into a mixing bowl.

Measure **1 cup of warm water** and pour into a second mixing bowl.

Measure **1 teaspoon of Borax** and add to the warm water. Stir until the Borax has completely dissolved.

Slowly mix small amounts of the Borax and water solution to the glue until it is no longer sticky. The entire Borax solution may not be needed.

Knead the mixture until it is smooth and easily pliable.

Place the slime in a sealed container and store for about a week in order for it to become completely clear and to allow all air bubbles to pop.

Allow time for youth to manipulate the slime and invite them to store their portion in re-sealable plastic bags for later use.

EXTENSION:

Add an element to this water slime recipe to take it to a new level of Super Hero Slime. Begin by following all directions for making the basic water slime recipe. Mix in glitter after adding the Borax solution to the glue. Red or purple glitter is recommended. Knead the mixture until the consistency is smooth and pliable.



LAVA LITE

MATERIAL(S) NEEDED:

Glass jars

Water

Food coloring

Vegetable oil

Salt shaker filled with salt

INSTRUCTIONS/HOW TO CREATE:

Divide youth into small groups of two or three and invite them to create lava lamps according to the following directions.

Have each group collect a glass jar and fill about **three-quarters full with water.**

Invite each group to add **a few drops of their favorite color of food coloring** to the water.

Have each group pour vegetable oil into the jar, filling it to the top. Allow a few moments for the oil and water to settle in separate layers.

Invite each group to shake **a generous amount of salt** into the mixture. Youth should see globs of oil sink to the bottom of the jar, much like a lava lamp.

Once the oil has returned to its separate layer, invite groups to add salt again to repeat the effect.

Discuss with youth how this experiment works. When added to water, oil rises in a layer above because it is less dense, or lighter, than water. Salt is denser, or heavier, than water and sinks when added to water. The oil attaches to the salt grains when the salt is added and sinks. The oil rises above the water again after the salt dissolves.

Be sure to appropriately dispose of the oil and water mixture once youth have completed the activity.



ALL RECIPES HAVE BEEN COMPILED BY JOSLYNN GARCIA.
Joslynn is an alumni of the Extend-A-Care for Kids program in Austin, TX.

NATIONAL
AfterSchool
ASSOCIATION

© National AfterSchool Association 2018