



# Sciencenter At-Home: Measuring with Flubber

Measure and manipulate flubber using different tools!

In this activity, learners will explore a slime-like material with measuring and impression-making tools.

## Materials:

To make flubber:

- Water
- Elmer's glue
- 20 Mule Team Borax
- Food coloring or liquid watercolor (optional)
- Teaspoon
- 1 cup measuring cup
- $\frac{3}{4}$  cup measuring cup
- $\frac{2}{3}$  cup measuring cup
- Two bowls
- Two spoons

For the activity:

- Ruler
- Measuring cups and spoons
- Items that can make impressions such as forks, potato mashers, stamps, leaves, shells etc.

## Try this:

Make the flubber according to the recipe and instructions below.

Give your child some flubber and encourage them to make observations. Ask guiding questions like:

- What does it feel like?
- What do you notice about the flubber?

Give your child the measuring tools and encourage them to measure the flubber. You can guide them with questions like:

- How long is the flubber? How can you make it longer?
- How much flubber is in the measuring cup? What will happen if we place it into a smaller cup?

Add in the impression tools and explore what textures you can make! Encourage them with questions like:

- What does the stamp look like? What does it feel like?
- Do you think the impression will disappear?
- Can you show/tell me how you made that?

### Change it up!

Depending on the age and need of your child, this activity may look different. This is an open-ended and sensory activity. There is no wrong way to explore flubber!

Here are some activity extensions and adaptations:

- Try this activity with different materials like kinetic sand or playdough.
- Hide different items in the flubber and challenge your child to find them.
- Ask your child to make a pattern with the impression tools.
- Let your child set the pace for the activity. Spend as much or as little time on the different steps as is appropriate for your child.
- Repetition is your friend!

### Science process skills

This activity focuses on building the skills to participate in science over the science content itself. In this activity we highlight measuring skills and observation skills as the children play with flubber.

We observe objects and events using our senses. While observations made only with the senses are qualitative, they help us gather information and learn about the world. Building observations skills help children expand on other science process skills like categorizing and making predictions. When guiding your child through this activity, encourage them to make more detailed observations by prompting them to elaborate.

Measuring allows us to make quantitative observations. We can use tools that have specific units or count and add numbers to our observations. Combining measuring and observation skills allows learners to get a bigger picture of the materials they're working with. Play alongside your child to help demonstrate how to use some of the measuring tools!

## Flubber recipe

### Materials

- Approximately 1½ cups water
- 1 teaspoon 20 Mule Team Borax
- 1 cup Elmer's White Glue
- Food coloring (optional)
- Teaspoon
- 1 cup measuring cup
- Two bowls
- Two spoons



### Steps:

#### 1. Make the glue mixture:

In a large bowl mix together:

- ¾ cups warm water
- 1 cup Elmer's White Glue
- A few drops of food coloring (optional)

Mix with a spoon until fully combined and the color is to your liking.



#### 2. Make the Borax mixture:

*Adults, please do this step!*

In a smaller bowl mix together:

- ⅔ cups hot water
- 1 level teaspoon Mule Team Borax

Stir until the borax is completely dissolved.



### 3. Combine liquids:

Pour the borax mixture into the large bowl and mix the two liquids together. It will start to thicken up immediately. You can start with a stirring utensil, but after the flubber starts to thicken, you'll want to use your hands. You may need to squish, mix and break up the Flubber to get it fully combined.

The flubber is ready when all of the liquid is absorbed and the flubber pulls away cleanly from the sides of the bowl.

Store the flubber in an airtight bag at room temperature. White vinegar removes flubber from hair, clothing, carpet, etc.



This activity exists in many versions. This adaptation was inspired by Using Tools: Flubber from the Collaborative for Early Science Learning copyright 2021, Sciencenter, Ithaca NY.  
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