

Slime Extravaganza



Learning Objectives:

- Students will create slime and explore its properties (texture, stretchiness).
- Students will identify the basic steps of a scientific experiment (mixing, observing).
- Students will be introduced to the concept of a chemical reaction.

Vocabulary:

- **Matter:** Anything that takes up space and has mass (like slime!).
- **Texture:** How something feels (smooth, rough, sticky).
- **Stretchy:** Can be pulled and extended without breaking (like slime!).
- **Mix:** Combining things together.
- **Chemical Reaction:** When ingredients mix and change into something new (like slime!).

Materials:

- Slime Kits (20ml Polyvinyl Alcohol (PVA), 5ml Borax solution, mixing cup, and a stirring stick) • Safety goggles (optional, for older students)
- Paper towels
- Newspaper or plastic sheet (to protect work surfaces)

Procedure:

Introduction (10-15 minutes):

1. **Slime Science.** Briefly explain, in a way appropriate for their grade level. An example:
We make slime by mixing two special liquids together. One is PVA , like the glue we use at school, and the other is a solution made with Borax, a white powder from the ground containing boron, sodium, oxygen, and water. When we mix these liquids, they react and create slime, which is like magic chemistry happening right before our eyes! The Borax helps the PVA molecules stick together in a unique way, giving the slime its stretchy and gooey texture.
2. **Science Words!** Introduce the vocabulary words for today's activity (matter, texture, stretchy, mix, chemical reaction) using age-appropriate definitions and examples. For younger students, focus on 2-3 key words like "texture" and "stretchy".
3. **Slime Experiment!** Briefly explain that students will be scientists today and conduct an experiment to make slime!

Step-by-step Slime Making (10-15 minutes):

1. **Safety First:** Emphasize the importance of following instructions and using materials safely. Ensure that students understand they should not ingest any of the ingredients and should wash their hands thoroughly after the activity.
2. **Prepare Your Workspace:** Set up a clean and organized workspace for each student. Provide each student with a slime kit, which includes a cup, PVA (polyvinyl alcohol) solution, borax solution, and a stirring stick.
3. **Pour the PVA Solution:** Instruct students to carefully pour the provided PVA solution into their cups.
4. **Add the Magic Ingredient:** Add 5 mL of borax solution to the PVA solution. As students are mixing, explain that borax is a special ingredient that helps create slime by linking the polymer chains in the PVA.
5. **Mix Thoroughly:** Instruct students to stir the mixture slowly with their stirring sticks as soon as the PVA and borax are combined. Encourage them to observe the changes in the mixture as they stir. The mixture may start out cloudy and liquid but will gradually become thicker and more solid.
6. **Form the Slime:** Have the students continue stirring until the mixture forms a solid mass that pulls away from the sides of the cup.

Special Notes

7. **Observation and Patience:** Remind students to be patient while stirring. The transformation from liquid to slime can take a few minutes.
8. **Cleanup:** Make sure to have paper towels or wipes available for cleanup. Encourage students to clean their workspaces and wash their hands after the activity.
9. By following these steps, students will safely and effectively create their own slime while learning about the science behind the process.

Slime Exploration (10 minutes):

1. **Touch Time!** Briefly discuss proper hand hygiene before handling the slime. Distribute safety goggles (optional) and have students carefully remove their slime from the cups.
2. **Let's Play!** Encourage students to explore the properties of their slime using their senses. Ask them to describe its texture (sticky, smooth), how it feels when stretched, and if they can roll it into a ball.
3. **Science Chat:** Gather students back together and discuss their observations. Use age-appropriate questions like: "What words can we use to describe the slime?" or "How did the slime change when you played with it?"
4. **Other results to observe:** If pulled slowly, it flows; if pulled quickly, it breaks; and if rolled into a ball, it bounces.