Slime science fair project: why not slime, and oobleck instead

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Why slime makes a poor science fair project (borax and contact-lens solution aren't kitchen things, and goo isn't a test) and oobleck and magic milk to try instead.

Slime is a great thing to make and a poor science fair project, for two reasons: the activator that turns glue into slime is a borate, from borax or from contact-lens solution, which is outside the kitchen cupboard; and making slime on its own isn't a test, because nothing is changed and measured. The closest swap is oobleck: just cornstarch and water, gooey, strange, and measurable. Peabody's oobleck project asks how much cornstarch it takes to hold a penny on top, and it costs about a dollar.

When Peabody gathered Google's suggestions on 30 October 2026, "science fair experiments with slime" was the first one offered after "science fair experiments with". So I wrote a slime page that says why slime isn't on Peabody's fair list and lists eight gooey, colourful projects that are. Here's the longer version for grown-ups.

What's in slime

Slime is usually glue plus an activator. Poison Control's article "Is homemade slime safe? Borax burns, rashes, and ingestion" (National Capital Poison Center, read 31 October 2026) says borax, boric acid or sodium borate "acts as an activator" that cross-links the glue's long chains. It says borax at high concentration can cause burns and blisters, especially if it stays on the skin for a long time, and that swallowed slime can cause stomach upset.

The same article suggests cornstarch, dish soap, or baking soda plus contact lens solution as alternatives to borax for slime at home. That's good advice for play. For a fair project, though, contact-lens solution doesn't get you out of the rule: the saline that slime recipes use is the activator because its label lists boric acid and sodium borate, the same family of chemical as borax. Peabody's own Workshop slime uses it, and a grown-up measures and pours it there.

The rule it runs into

The school rule sets I read allow safe kitchen chemicals and ban dangerous ones. Washington County School District's science fair rules in Utah (the PDF, read 31 October 2026) say dangerous chemicals "are not allowed", and name table salt, sugar and bicarbonate of soda as the safe ones that may be displayed, in quantities under a tablespoon. Peabody's fair projects keep to the kitchen: borax is on the list of words no Peabody project may say, checked in the code before any project is shown, and the contact-lens saline is left off the fair's safe-list for the same reason. The rules page lists each shared rule with its

source.

Your school's sheet wins. If your child has their heart set on slime, ask the teacher before planning anything.

The other problem: slime isn't a test

A judge wants a question answered by changing one thing and measuring what happens, three times at each level. "I made slime" is a demonstration. "Which glue makes the stretchiest slime?" is a test, but it still needs the activator. That's why the swaps below keep the goo and add a measurement.

Eight gooey projects instead

- Project: How much cornstarch makes oobleck hold a penny? · Grades: 3rd–7th · Testing: 45 min · Cost: about $1 · The goo: oobleck, three thicknesses
- Project: Does whole milk swirl farther than skim milk? · Grades: 2nd–6th · Testing: 40 min · Cost: about $2 · The goo: magic milk
- Project: Do the heaviest liquids always sink to the bottom? · Grades: 4th–8th · Testing: 75 min · Cost: about $2 · The goo: honey, corn syrup and soap layers
- Project: Does food colouring spread faster in hot water? · Grades: 2nd–8th · Testing: 45 min · Cost: free · The goo: swirling colour
- Project: Which paper pulls water up the highest? · Grades: 2nd–6th · Testing: 45 min · Cost: about $1 · The goo: colour climbing paper
- Project: Does a wider paper strip walk water faster? · Grades: 2nd–6th · Testing: 60 min · Cost: free · The goo: walking water
- Project: Do leaves help celery pull up coloured water? · Grades: 3rd–8th · Testing: 40 min plus 4 hours · Cost: about $2 · The goo: coloured water in a stalk
- Project: Does dish soap stop oil and water from separating? · Grades: 3rd–8th · Testing: 60 min · Cost: free · The goo: oil, water and soap

Oobleck, the real swap

Oobleck is cornstarch and water. Stir it slowly and it flows like a liquid; poke it fast and it jams like a solid. Scientists call that a non-Newtonian fluid, and slime behaves in a similar way, which is what makes it such a good stand-in.

The project: pour a quarter cup of water into a clear cup, add a quarter cup of cornstarch and mix for a minute. Lay a penny flat on top as gently as you can and time how long it takes to sink out of sight (stop at 60 seconds). Scrape the oobleck into the trash, never down the sink. Then do the same with half a cup and three quarters of a cup of cornstarch, three fresh mixes of each, and draw a line graph. For 7th grade and up, the second test stacks one, two and three pennies on the best mix.

The pennies are small parts, so keep them away from little ones, and put a tray down: oobleck gets everywhere.

Magic milk, for the colour

If it's the swirls of colour your child loves about slime, magic milk gives them. Three plates of skim, 2% and whole milk, one drop of food colouring in the middle of each, then the eraser end of a pencil dipped 1 cm in dish soap touched to the colour. After one minute, measure how far the colour has spread. The milk and the soap aren't for drinking, and the plates get washed after each round.

If your child still wants to make slime

Make it for fun, with a grown-up, on a different day. The Workshop has Stretchy Slime, with goggles on and a grown-up measuring the contact-lens solution. Poison Control's article advises washing hands before and after play and stopping if the skin gets irritated. Then come back to the oobleck for the fair.

Questions grown-ups ask

Is borax-free slime OK for a science fair?

Recipes sold as borax-free usually swap borax for contact-lens solution, which carries the same kind of chemical. It's still outside the kitchen list Peabody keeps to. Ask your teacher if your school's sheet allows it.

Is oobleck safe?

It's cornstarch and water, both from the kitchen. It's still not for eating, it's messy, and it blocks drains, so it goes in the trash.

What do we bring on fair day?

Photos of the cups and the penny at each check, the results table and the graph. The UNM STEM-H Center's K–5 rules (read 31 October 2026) say no liquids on the display, and Washington County's say no open containers.

Peabody (peabody.kids) is free through the end of 2026, with no ads and no sign-up, and nothing a child taps on the science fair pages is sent anywhere. The library has stories by reading level for after the oobleck is scraped up.

Free at peabody.kids/blog/slime-science-fair-project