

## Make a Non-Newtonian Fluid – **Oobleck**

### MATERIALS

- 1 cup water
- 1.5-2 cups corn starch
- Bowl
- Newspaper or plastic table cloth
- Food coloring (optional)

### INSTRUCTIONS

1. Cover your workspace with newspaper or a plastic tablecloth. Sometimes science gets messy!
2. Pour the water into a bowl. Optional: If you want to make colorful oobleck, add food coloring to the water in this step.
3. Slowly start adding in cornstarch, using your hands to mix.
4. Continue adding cornstarch until you get a gooey consistency. The solution should flow like a liquid, but harden when pressure is applied. If you add too much cornstarch, you can add more water.
5. Play! Try placing your hand in the oobleck quickly, then slowly. What do you notice?
6. To dispose, dilute the cornstarch mixture with warm water before pouring it down the drain.

### WHAT'S HAPPENING?

You created a non-Newtonian fluid called oobleck! Non-Newtonian fluids do not behave like ordinary fluids.

Most fluids flow faster when they are pushed harder, but not Oobleck! When you apply a lot of pressure to Oobleck, it firms up and feels like a solid. When no pressure is applied, it flows like a liquid. The name "oobleck" comes from the Dr. Seuss book *Bartholomew and the Oobleck*. In the story, a gooey green substance called oobleck fell from the sky. Other examples of non-Newtonian fluids include ketchup, toothpaste, and paint.



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