

in this experiment, you will learn...

- What **viscosity** is
- What a **non-Newtonian fluid** is

Share your results and tag us! #SPARKCuriosity

Curiosity Labs™ by Merck: oobleck

SUPPLIES

- Water
- Corn starch
- Food coloring (optional)
- Bowl
- Marbles

Instructions

STEP 1

Gradually mix 2 cups (250 g) of corn starch with 6 oz (180 mL) of water. (The measurements can be adjusted to your preference on how much Oobleck you would like to create. Just keep the ratio approximately 2:1)

STEP 2

Mix together completely.

STEP 3

Add food coloring, if desired. And an additional 1 cup (125 g) of corn starch, if needed.

STEP 4

Drop marbles in and see what happens. Make a fist and punch the mixture to see what happens.

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FUN FACTS

Oobleck allows us to observe and understand viscosity, or resistance to flow.

When not put under stress, Oobleck is less viscous and flows easily. When under the stress of someone's hands or another tool such as a hammer, its viscosity increases, and it starts behaving more like a solid.



WHAT HAPPENED?

This substance is called Oobleck! Oobleck is a non-Newtonian fluid, which means it has properties of both solid and a liquid depending on how much force is exerted upon it.

With less push, it oozes and slimes around, but as soon as it is squeezed, molded and shaped, Oobleck solidifies.