

Making Oobleck



You'll need:

- A nice container to fit everything in
- A strong stirrer to mix things with
- A cup of cornflower
- 1/3 a cup of water
- Food colouring (if you want colour on your kids and furniture.)

Warnings:

- Oobleck is MESSY! You'll need science clothes, hair tied back, and some glasses. Be prepared to do this activity outside on the grass, or inside with a drop down sheet.
- As if Oobleck isn't bad enough, if you choose to colour it with food dye, the colour will get all over your fingers, clothes, and anything the Oobleck touches. Beware!
- Cornflour is a very fine flour. It poses a choking and eye hazard if thrown around or mixed too enthusiastically while still mostly dry. Be careful.

End of life:

- Oobleck is completely biodegradable, and can be washed down or thrown out.

Method:

- Place your cornflour in your mixing bowl.
- Add your water.
- Stir till it is all mixed CAREFULLY! It's too easy to make a big mess here!

There, you've made Oobleck

- NOTE: Oobleck's consistency depends on a lot of factors, including air pressure and humidity. You might have to adjust your ingredient levels till you reach a state that you are happy with.

Explain:

Isaac Newton created the idea that the behaviours of all fluids can be described once you know two variables; pressure and temperature.

However, Oobleck changes its behaviour due to a third variable - stress (i.e., how much you squeeze it). Making it a NON-NEWTONIAN FLUID.

When you squeeze Oobleck the cornflour particles lock together, trapping the water and temporarily turning the material into a solid. Release the stress, and the Oobleck turns back into a liquid - weird!

There's still a lot we don't know about Oobleck - what makes the particles move apart after the stress is removed, or do the particles actually touch each other? Maybe you can help us find out!