

Background Information

Oobleck is a non-Newtonian fluid; it has properties of both liquids and solids. You can slowly dip your hand into it like a liquid, but if you squeeze the oobleck or punch it, it will feel solid. The name oobleck comes from the Dr. Seuss book, "Bartholomew and the Oobleck."



3 States of Matter

Solid	Liquid	Gas
<ul style="list-style-type: none">• Has a definite shape• Has a definite volume• Can't flow	<ul style="list-style-type: none">• Acquires the shape of the container• Definite volume• Can flow	<ul style="list-style-type: none">• Acquires the shape of the container• Indefinite Volume• Can flow

Do

Recipe:

- 0.5 cup of water
- 1.5 cups of cornstarch
- a few drops of food coloring of your choice

Instructions:

1. Start with the water in a bowl and start adding the corn starch to it.
2. When you're getting close to adding 1.5 cups of corn starch, start adding it more slowly and mixing it in with your hand.
3. The goal is to get a consistency where the Oobleck reaches a state that is liquid and yet solid.
4. Add food coloring
5. Play with it!
 - a. grab a handful, squeeze it, and let it ooze out your fingers
 - b. make a puddle and quickly drag your fingers through it
 - c. jab at the Oobleck and then slowly let your fingers sink in

Reflect

- What did you do?
- What happened?
- **Compare:** Did your Oobleck behave the the Oobleck in the story?
- What **observations** did you make?
 - When did the Oobleck act like a solid? **When pressure was applied.**
 - When did the Oobleck act like a liquid? **When it wasn't under pressure.**
 - Why do you think the Oobleck acted like a solid? **The starch molecules are pressing against each other when pressure was applied.**

Apply

- What did you learn about yourself during this process?
- How can you use this information in the future?
 - What are other situations where you might need a product that behaves like the Oobleck?
- What would you do differently if you conducted this activity again?
- What did you learn by participating in this process that will help you in the future?