

Ooblek (Chemical Reactions)

"Bartholomew and the Oobleck," by Dr. Seuss follows the adventures of a young boy named Bartholomew Cubbins, who must rescue his kingdom from a sticky green substance called "oobleck." We will be making Ooblek today!

Oobleck is a **non-Newtonian** fluid. A **non-Newtonian** fluid is a fluid that does not follow Newton's law of viscosity, i.e., constant viscosity independent of stress. In **non-Newtonian fluids**, viscosity can change when under force to either more liquid or more solid, meaning it acts like a liquid when being poured, but like a solid when a force is acting on it. Ketchup, for example, becomes runnier when shaken and is thus a **non-Newtonian** fluid.

What you will need:

- ½ cup water
- 1 cup corn starch
- 1-2 drops of food coloring (optional)

Directions:

Begin with the water in a bowl. Add food color now, if you choose to use it. Next, slowly mix the cornstarch in one spoonful at a time. You'll eventually need to start mixing with your hands to get the right consistency. The goal is to get a consistency where the Oobleck reaches a state that is liquid and yet solid. Once you have the right consistency, it's time to play!

Here are some things to try:

- Grab a handful, squeeze it, and let it ooze out your fingers.
- Make a puddle and quickly drag your fingers through it.
- Put it into a plastic container and shake it or quickly bump it against a table.
- Jab at the Oobleck and then slowly let your finger sink in.