

Oobleck!

IS IT A LIQUID? IS IT A SOLID?
COULD IT BE BOTH?

INTRODUCTION

Viscosity is a physical property of liquids and basically tells us how thick and how resistant to flow it is. Think about running your hands through water - what does it feel like? Is it easy to do? Now, think about running your hands through maple syrup - what does that feel like? Both water and syrup are liquids, but they have different viscosity!

So what makes Oobleck so special? Well, Oobleck is considered a **Non-Newtonian Fluid**, which means that it is a "suspension" and has properties of both a liquid and a solid! When little resistance is applied to the Oobleck, it oozes and flows like a liquid; but as soon as you apply force to it (say, when you try to scoop it up) it becomes hard like a solid.

MATERIALS

Cornstarch
Water
Measuring Cups
Aluminum Pans
Food Coloring
Spoons
Plastic Animals

DIRECTIONS

The ratio of water to cornstarch is 1:1.5
(one part water to 1.5 parts cornstarch)

Start by combining the water, food coloring, and cornstarch and gently mix together. If it appears a little too solid, add a few drops of water. Repeat until desired texture.

Instruct the students to explore and play with the Oobleck! Ask them for their observations, have them describe the texture using buzz words, and encourage them to manipulate the concoction (squeeze, hit, stir, pinch, etc).

This is an open-ended, exploratory activity!
Encourage the students to get messy, test hypotheses,
and be creative!

