

## Objective

By the end of this lesson, you will understand what Oobleck is and how it behaves. You will also have fun exploring its unique properties.

## Materials and Prep

- Cornstarch
- Water
- Bowl or container
- Measuring spoons
- Food coloring (optional)
- Apron or old clothes to protect your outfit
- Towel or paper towels for cleanup

Make sure to have all the materials ready before starting the activities. It's also a good idea to cover your work area with a plastic tablecloth or newspaper to make cleanup easier.

## Activities

### 1. Activity 1: Mixing Oobleck

Measure 1 cup of cornstarch and pour it into the bowl. Slowly add water, about 1/2 cup at a time, while stirring with your hands or a spoon. Keep adding water until the mixture reaches a gooey consistency. You can add a few drops of food coloring if you want your Oobleck to be colorful.

### 2. Activity 2: Exploring Oobleck's Properties

Dip your hands into the Oobleck and try to pick it up quickly. What happens? Now, try to squeeze it tightly in your fist. Observe how it behaves. Experiment with different ways of interacting with the Oobleck, such as tapping it or poking it with a spoon. How does it react?

### 3. Activity 3: Oobleck Dance Party

Put on some music and place the Oobleck on a large tray or plate. Move the tray around to make the Oobleck dance to the rhythm of the music. Watch how the Oobleck moves and changes shape as you tilt the tray.

## Talking Points

- When we mix cornstarch and water together, we create a substance called Oobleck. It's a special type of liquid that can behave like a solid when we apply force to it.
- Oobleck gets its name from a Dr. Seuss book called "Bartholomew and the Oobleck." In the book, a gooey green substance falls from the sky and causes all sorts of trouble.
- Oobleck is what we call a non-Newtonian fluid. That means it doesn't follow the usual rules of how liquids or solids behave. It can flow like a liquid when we pour it, but it can also act like a

solid when we squeeze or hit it.

- The secret to Oobleck's unique behavior lies in its mixture of cornstarch and water. The tiny cornstarch particles get suspended in the water, creating a substance that is both liquid and solid at the same time.
- When we try to pick up Oobleck quickly, it resists our force and feels like a solid. But when we apply slow pressure, it flows and acts like a liquid. This is because the cornstarch particles get pushed closer together when force is applied slowly, creating a solid-like structure.
- Oobleck is a lot of fun to play with, but remember that it can get messy! Make sure to have a towel or paper towels ready for cleanup. It's also a good idea to play with Oobleck on a tray or in a container to contain the mess.
- Have fun exploring Oobleck's properties and discovering new ways to interact with it. Remember, science is all about asking questions and finding answers through experimentation!