

# CORNSTARCH: A SUPER SCIENCE SUBSTANCE!

## PART 2



**SUPERNOVA**  
DALHOUSIE UNIVERSITY | HALIFAX, NOVA SCOTIA

### LEARN ABOUT NON-NEWTONIAN FLUIDS

# 4

#### MATERIALS

- 1/4 cup of cornstarch
- 1/4 cup of water
- 1 large bowl
- 1 spoon
- Paper towel

# 15 MINS

#### PROCEDURE

##### Step 1

Add 1/4 cup of dry cornstarch to the bowl. Add about 2 tbsp of water, and stir the mixture until all the powder is wet.

##### Step 2

Continue to add water until the cornstarch acts as a liquid when you stir it slowly. When you touch the liquid with your finger, it shouldn't splash, but rather become hard. You've created a non-newtonian fluid! If your mixture is too liquid, add more cornstarch until you achieve this balance.

##### Step 3

If you decide to make a bigger batch of this, explore how different substances float or react to pressure on the fluid surface.

#### EXPERIMENT WITH DIFFERING PRESSURES AND EXPLORE HOW THE FLUID ACTS!

#### PURPOSE & SCIENCE OUTCOMES

- You created a non-newtonian fluid!
- A non-newtonian fluid is a substance that does not follow Newton's law of viscosity.
- Viscosity refers to the thickness of a fluid, and how well it resists deformation.
- Non-newtonian fluids are those that do not have a **constant** viscosity under stress or pressure.
- Another example would be ketchup: it becomes runnier when shaken.

ANY QUESTIONS? REACH OUT @SUPERNOVAATDAL