



FARM DAY ADVENTURES!

"The Corn Edition"

Learning Objectives

1. Recognize the vast usage of corn
2. Learn about a Newtonian-fluid and Non-Newtonian fluid

Supplies

- Cornstarch
- Water
- Bowl

Where can I find corn?

Corn can be found all around you! Look around your house to see if you can find soda, popsicles, candy, ketchup, cough drops, hand sanitizer, diapers, crayons, and even toothpaste. Corn is also made into **cornstarch** which is used to make delicious baked goods including cakes, pies, and waffles! Corn is made in a variety of objects we use everyday, even if we don't realize it!

Cornstarch is Crazy!

Cornstarch is used to "thicken" foods. Let's find out why!

1. Add 1/4 cup cornstarch to small bowl.
2. Slowly add water until a liquid forms.
3. Tip: If you tap the liquid quickly, it should act like a solid!
4. Grab a small handful of the mixture and mold into a ball.
5. Hold your hand flat and watch it melt through your fingers.

Newtonian fluids and Non-Newtonian fluids:

- A Newtonian fluid (named after physicist Isaac Newton) will act like a liquid, no matter what type of pressure is put on it. Water and most other liquids are examples of Newtonian fluids.
- A non-Newtonian fluid will sometimes act like a liquid and sometimes like a solid depending on the pressure put on it. Cornstarch combined with water and gravy are examples of Non-Newtonian fluids.

Questions?

1. Can you think of any other uses of corn?
2. Why do you think cornstarch sometimes acts as liquid and others as a solid?

Contact Information

Paige Lilley: paige_fuselier@ncsu.edu

Dylan Lilley: dylan_lilley@ncsu.edu



Adapted from National 4-H and the Nebraska Corn Board.

North Carolina Cooperative Extension is an equal opportunity provider.