

OUBLECK SLIME



PURPOSE:

In this experiment you will be creating and observing a non-newtonian fluid. This type of fluid doesn't obey Newtons law of viscosity which states: "the viscosity of a liquid does not depend on pressure exerted on it". During this experiment you will get to observe the different interactions a non-newtonian fluid exhibits, depending on the pressure placed on it.

MATERIALS:

- 1 Bowl
- 1 1/2 Cups of corn starch
- 1 Cup of water
- Food colouring (optional)

PROCEDURE:

1. Start with the water in the bowl and gradually add the corn starch
2. Stir in the cornstarch with your hands
3. Add food coloring (optional)
4. Have fun!



Source: <https://www.thebestideasforkids.com/how-to-make-oobleck/>

CONCEPT CHECK:

- What happens when you slowly put your hand in?
- What happens when you quickly poke it?
- Do you know other substances that behave like oobleck?

Key Concepts:

Viscosity: is a measure of a fluid's resistance to flow. It describes the internal friction of a moving fluid. Think of it as how 'thick' a fluid is.

Tag us in your creations!



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Source: <https://www.scientificamerican.com/article/oobleck-bring-science-home/>

YEAST BALLOONS



PURPOSE:

In this experiment you will be observing the process of fermentation through the reaction of yeast and sugar which produces carbon dioxide gas (CO₂)

MATERIALS:

- 1 small clear plastic pop bottle
- 1 package of active yeast
- 1 balloon
- 1 cup warm water
- 2 tablespoons of sugar

PROCEDURE:

1. Fill half your bottle with warm water
2. Add the yeast and sugar to the bottle
3. Put the cap on and shake the bottle
4. Take the cap off the bottle and stretch the neck of the balloon over the opening of the bottle
5. Sit it somewhere undisturbed and observe it every 20 minutes.

Key Concepts:

Fermentation: The chemical breakdown of a substance by yeast, bacteria and other microorganisms that produces a gas and heat.



<https://sciencebob.com/blow-up-a-balloon-with-yeast/>

CONCEPT CHECK:

- What do we need sugar for the experiment?
- Why does the balloon inflate?
- What is yeast used for?
- Try this with hot and cold water, what happens to the size of the balloon? Why?
- Try this with baking soda instead of yeast and leave out sugar, what happens?

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Source: <https://www.howtosmile.org/resource/smile-000-000-001-331>

