



4-H Cabin Fever Friday!

June 12, 2020

4-H is an opportunity to try new activities and learn new skills. If you're looking for an idea to pass the time and want to try something new, check out the projects below. 4-H Cabin Fever Friday will be created weekly with a variety of projects and skill levels highlighted each week. Please remember the social distancing and Safer at Home guidelines while doing these projects. If you would like to take a picture of you or your family doing one of these 4-H projects, feel free to email it to me at holly.luerssen@wisc.edu, with the subject line: 4-H Cabin Fever Friday Photo and each family will be entered into a drawing at a later date for some special gifts!



Langlade & Lincoln Counties

What's the Matter?

Did You Know?

Matter can exist in many phases as solids, liquids, or gases. Some, however, can behave like more than one of these at a time. In this experiment you will make some slime that is considered a non-Newtonian fluid. Liquids, typically flow, but if you put pressure on a non-Newtonian fluid, it acts more like a solid.



Supplies...

- Large bowl
- 1 cup cornstarch
- 1/2 cup water
- Spoon
- Aluminum pan

Learning Outcomes...

- Project Skills: Mixing a liquid and a solid to create a new product
- Life Skill: Reasoning
- Success Indicator: Recognizes and understands the various phases of matter.

What to do...

1. Pour cornstarch into the bowl.
2. Add water slowly and stir carefully.
3. It will be thick but will still be a liquid.
4. Stir it fast and then very slowly.

What happens?



5. Squeeze some mixture and then let it flow through your fingers.
6. Pour some of it into the pie pan and hit it hard with your fist? What did it look like?

Helpful Note

If you add too much water, just add a bit more cornstarch to thicken.



Book Nook: Go to your local library and grab this book to read!

Source: Science Fun with Kitchen Chemistry—Ohio State University



Bubble Transporters

You have probably heard the statement that "oil and water do not mix." In this experiment you will see oil is less dense than water, so oil floats on top of the water. Add some carbon dioxide bubbles through, and you will see something very interesting!

Project Skills: Testing the effects of intermolecular polarity

Time: 10-15 minutes

Supplies:

- ◆ Clear small jar (like a baby food jar)
- ◆ Water
- ◆ Food coloring
- ◆ Spoon
- ◆ Baby oil
- ◆ Effervescent antacid tablet (fizzing)

Directions:

1. Fill the jar about 1/4 full of water.
2. Add a couple drops of food coloring.
3. Mix.
4. Pour baby oil into the jar, leaving an inch or so of room at the top.
5. Break antacid tablet into three or four pieces and drop them into the jar.
6. Watch what happens.

Reflect:

What happened when you added the antacid tablet in the jar?

As the tablet dissolved what did it create?

What is intermolecular polarity? The antacid dissolves in the water and releases carbon dioxide bubbles. The CO₂ gas rises to the top of the jar with molecules of colored water. The bubbles burst releasing the CO₂ into the air. The colored water sinks back to the bottom, traveling through the less dense oil layer to get there. Oil and water don't mix because of intermolecular polarity. **Cool, hey?**

Dancing Raisins

Extra Challenge

Supplies:

- * Clear soda
- * Tall Glass
- * 4-5 raisins

Steps:

1. Pour the clear soda into the tall clear glass.
2. Drop in 4-5 raisins.
3. Watch what happens.



Reflect:

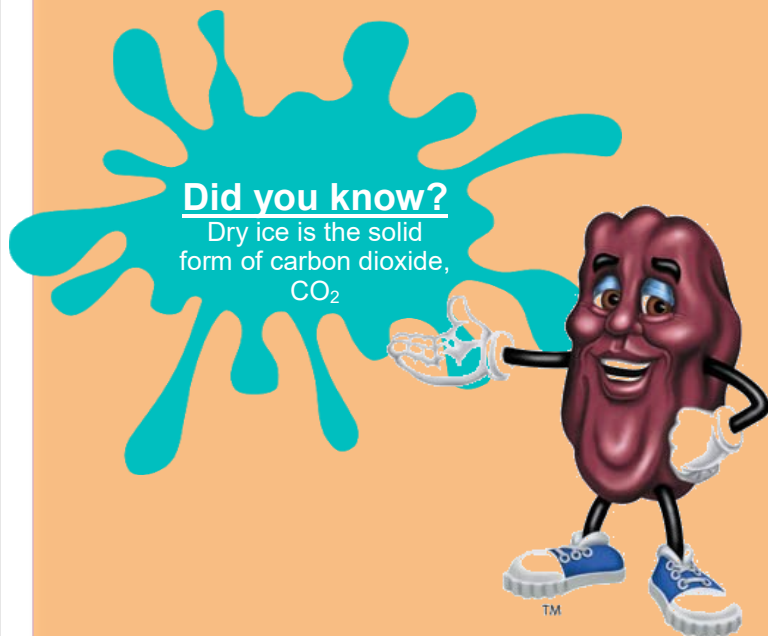
What happened during this activity?

Why did the raisins sink?

Why did the raisins raise up?

Who know?

Raisins are more dense than soda, so they sink. The raisin's surface is rough and as CO₂ gas floats up, the bubbles stick to the raisin, lifting it to the top of the glass. Once the gas is released at the surface, the raisins fall back down. This will continue until all the gas is released, making the soda "flat."



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