
the stars
challenge
Is it Science or Magic?
Winter 2017

Dear Students,

I hope you had a wonderful time delving into some of the more magical elements in chemistry. We learned about the elements and how to estimate the number of atoms. We used polarity and intermolecular forces to create marbled paper using shaving cream and food coloring. We saw what happens to milk when we add a surfactant like dish soap. We used density calculations to determine the type of metal used to make pennies. We dove deeply into the craziness of non-Newtonian fluids - slime, silly putty, and Oobleck! We explored acids and bases and indicators and wrote invisible messages to each other (then created ways of actually reading those notes). We discovered the gas laws and the interrelationship of volume, pressure, and temperature. We talked about topics like surface tension, electricity, thermodynamics, and polymers. We watched two solutions expand to almost 30x their original volume when mixed! And, of course, we made ice cream. Through it all we asked one question - is it science or magic?

It's been a blast teaching you and learning from you as you explored the magic of science. Thank you for a phenomenal class.

Now, go find some more magic.

Until next time,
Ms. Babbin

Day 1: Exploring intermolecular forces and polarity. How can we make bubbles harder to pop? Mix with corn syrup to prevent evaporation! What happens when you add soap to dyed milk?


CONFE

Using Polarity to Create Art: Shaving Cream Marbling and Paper Chromatography




An Exploration of Polymers. We made fluorescent slime and mixed two solutions to create polurethane foam - how much does the foam expand?

Analyzing pennies to determine their composition. What is the base metal used since 1982?

OOBLECK!! The Wacky World of Non-Newtonian Fluids

Silly Putty Design Contest

Making Suspensions: creating gumdrops and exploring how gelatin reacts to static electricity

Exploring surface tension. How many paperclips did you fit in your cup?

Acidity of household items. Which was the most acidic and which was the most basic?

Creating our own indicator solution to see how pH changes affect chemicals.

Analyzing Invisible Inks - what hidden messages will you uncover?

Exploring the various properties of gases


RBMS


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