

KAMSC'S



84 STEPS

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Letter From the Editors



Season's greetings! We here at 84 Steps are greatly anticipating the start of winter break, and we're sure you are too! The time off will be a great chance for all of us to relax and catch up on sleep, that is, until the stress of semester exams is upon us! Even though you'll be busy spending time with family, catching up on homework, and reviewing a semester's worth of material, we hope that this edition's articles will provide you with some much needed holiday cheer.

We're always looking for more writers! Here's a list of reasons why you should write for 84 Steps:

1. Your involvement in a student newspaper looks great on college applications... They're coming up soon, juniors!
2. You are free to write about what interests you. We love drawing too! Look at the beautiful cover Syeda made!
3. Please.

If interested, please contact kamsc84steps@yahoo.com, lily.kitagawa13@gmail.com, or even text (312)-860-8017.

Your Editors,
Lily Kitagawa and Andrew Backer



**Lily
Dorstewitz**

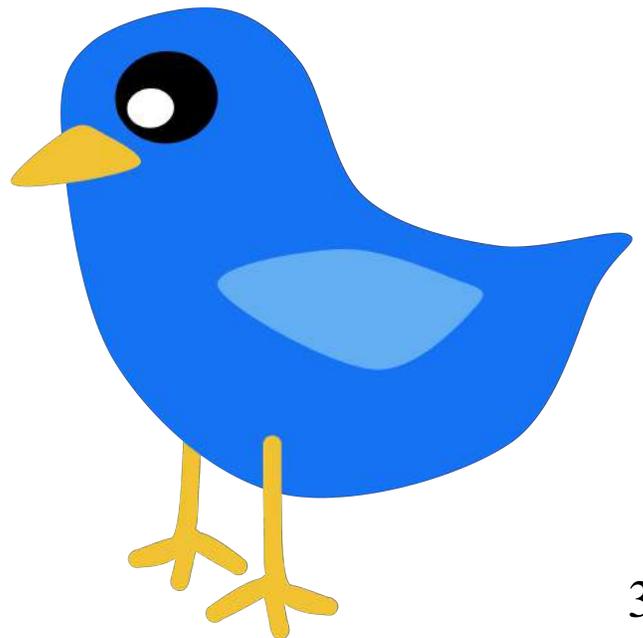
To the reader: Let it be known that except for this introduction, this piece was written entirely without the use of the letter 'e.' Go ahead, check. You can't find one. The letter 'e' is the most commonly used letter of the alphabet, so

writing a whole, coherent story over a page long presents a challenge. It seemed impossible to me at the time. But, I managed to do it, well enough that I am sharing it with you. This piece stands as an example that despite your personal doubts, you are capable of anything, and your brain can do more than you know. So work hard! Achieve the impossible! You can do it, and more importantly, you will. Never give up, and in the meantime, enjoy this fictional story of an extravagant tale of tardiness, hold the 'e's.

—Lily Dorstewitz

Ramblings Of A Tardy High School Junior

I will not show up tardy to Mr. Riba's class. I will not show up tardy to Mr. Riba's class. Okay, you know what, Mr. Riba? If I am going to do such a monotonous task, I am going to justify my unpunctuality with my story as to why I was tardy. I think you will actually find it amusing. This morning: "Marah! Isaac! Lunch! Hurry up! Bus coming!" My mom shouts upstairs. I groan. Not again. My mom thinks that talking in short, small bits of rational, normal, human phrasing is what "kids do nowadays." All I'm saying is, it's not what kids do now, or at all in history. My mom is mortally annoying. In fact, on many spring mornings, my mom will sing to birds sitting on our windowsill, and said birds will bolt away quickly. It's actually fairly inspiring to watch how fast birds fly away from my mom's singing.





I finally accomplish rolling off my couch and stumbling into my bathroom. I call my BFF as I try to find my pants. "Mom!" I wail downstairs, hopping around with only half of my arms stuck in a shirt. My arm prowls for a spot in a chaotic mass of shirt as Lynn picks up.

"Yo. What's up, man?" Lynn's sound strains to my floor as I fight with my own pants, shirt still haphazardly twisting around my body, as I am skillful at admitting loss.

"I," I start my complaint, panting, "can't - urgh - do this! I'm starting - ah! - to grasp submission's - oh, you stupid - attraction. Ugh!" My sorrow falls on an uncaring soul as Lynn's laugh floats through to my location: still my floor, but a portion of it that contains my school supply of writing books, studying tools, sloppy indications of my lack of organizational skills, and, sadly (and painfully), scissors. Small cuts

in unlucky spots on my body attack as I finally attain a small victory in putting my pants on in an apt school fashion. Lynn's laugh maintains its annoying quality and stamina, although about four days pass as Lynn finds dignity and a roaring laugh falls to a small tinkling laugh that I inform Lynn a fairy kingdom will claim its own soon as Lynn asks, "Is my aid always vital to your survival in a world of clothing mishaps?"

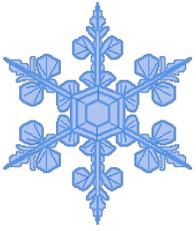
My arms fall on my rat's burrow of hair as I admit in submission, "I lack an assistant. I'm kind of almost in a proximity to looking normal." At this snark, Lynn bursts back into fits of laughing. I wait calmly as Isaac's tiny chaos initiators pound upstairs to my room. His small skull pops through a crack in my door. Isaac blinks at my frantic clothing condition and waits. I frown at him and say, "Isaac, you wanna do big sis a favor and act as my clothing assistant?"

Lynn abruptly stops all laughing and howls, "ISAAC! ROCKSTAR! WOOHOO!" I flinch and put Lynn's crazy about a foot away from my poor brain, and can still distinctly catch Lynn's shrill cry for Isaac, just to annoy his big sis, Marah Ann Dutton. I find my watch, my

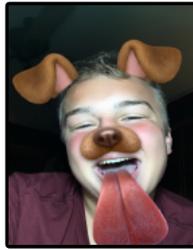
clothing finally quasi-normal, and my own shrill squawk fills my room as my mom joins us.

“Marah Dutton! What is this? Bus? What bus? Oh, your bus? It’s at school! You know, school? That location? Far from this location? So far that a bus might transport you to it if you accomplish that triumph of actually boarding it.” This scolding drags on for about as long as most of your class instruction, and I try to solicit my mom to transport Lynn, also tardy, and your star pupil (punctual and amazing at accounting this triumphant backstory to my tardy arrival) to school. I fail in said labor, as my mom walks our halls, saying, “Work! Work! Work!” stating an alibi again and again, squawking in parrot fashion. I go through a painful walk to school. If you think that is only a small victory, know that I had to walk through about 7,040 yards of muddy back roads to find my way to school. This is why I am muddy and tardy to not only your class, but to all of school today. This is my grand story of my unpunctuality. Anyway, back to my humdrum, circa 1950 castigation. I will not show up tardy to Mr. Riba’s class. I will not show up tardy to Mr. Riba’s class. I will not show up tardy to Mr. Riba’s class. I will not show up tardy to Mr. Riba’s class. I will not show up tardy to Mr. Riba’s class...





Snowy Word Search



**Andrew
Backer**

P W Y S N O W I E S T B C C F
Y M F W W O Y L L A F W O N S
E C R O O B R E I W O N S U V
N D G O S N O W B L O W E R O
A Q Q J T H S N O W F L A K E
M Q S M S S C S M A S O Z X B
W Q N W R N W N W N N M U G Q
O S O S N O O O O B O P N G Z
N N W N S W O W N Z W L R B Y
S O P O M B M B S S D W W M B
X W L W O A E O D L R O G O X
U B O M K L F A X H I K K K S
Q A W E L L I R D D F D R Q J
E N R L P Y L D C M T M E O B
H K K T W V V M B G Z W N M R

SNOW
SNOWBALL
SNOWBANK
SNOWBLOWER
SNOWBOARD

SNOWDRIFT
SNOWFALL
SNOWFLAKE
SNOWIER
SNOWIEST

SNOWMAKER
SNOWMAN
SNOWMELT
SNOWMOBILE
SNOWPLOW

SNOWSHOE
SNOWSLIDE
SNOWSTORM
SNOWY

KAM S.C. CLOSES OUT INAUGURAL SEASON 5-3, FINISHING SECOND IN LEAGUE



Jesse
Pollens-Voigt



Left to Right: Julia Naranjo, Claire Holley, Kristina Mills, Andrew Beering, Alex Vonhof, Maileen Bugnaski, Ava Wood, Jesse Pollens-Voigt, Addison Krueger, Jack Kujacznski (not pictured: Jenna Bowker)

KAM S.C., the math and science center's very own soccer team, finished their first season together with a narrow loss to the eventual league winners, Bol is Life. The name KAM S.C. comes from a pun on KAMSC and the abbreviation for Soccer Club, often used by professional teams. The team was led in goals by senior Jack Kujacznski (with 16 goals), followed by Jesse Pollens-Voigt (senior) and Julia Naranjo (junior), with 13 and 11 goals, respectively.

KAM S.C. players combined their knowledge of geometry and physics and used it to their advantage to beat teams from Portage Central, Vicksburg, and Gobles, among others. Senior Andrew Beering described KAMSC soccer well, as “a great way to get out of the house, have fun, and get some exercise, which we all could use.” KAM S.C. looks to return to play with a league victory third session.

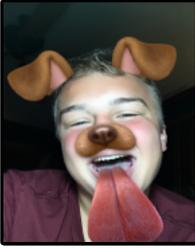
HORRORSCOPES



**Amirah
Bin-Mahfouz**

<p>Aquarius: JANUARY 20 - FEBRUARY 18 Over break, you will get a head start on studying for finals! If you aren't careful, however, you might end up studying the wrong thing...</p>	<p>Pisces: FEBRUARY 19 - MARCH 20 Happy New Year! Too bad you're going to fall asleep before the ball drops!</p>	<p>Aries: MARCH 21 - APRIL 19 The gift you have been begging for is in the future. Unfortunately, it may not be for you.</p>
<p>Taurus: APRIL 20 - MAY 20 You have big plans over break! They may be interrupted when your car doors are frozen shut, however!</p>	<p>Gemini: MAY 21 - JUNE 20 The death of a calculator is nearing...make sure your calculator is charged before it dies during your finals!</p>	<p>Cancer: JUNE 21 - JULY 22 Looking forward to sleeping in over break? Unfortunately, your relaxation plans will be interrupted when you wake up at 4:00 am...and can't fall back asleep!</p>
<p>Leo: JULY 23 - AUGUST 22 You have crafted the perfect New Year's resolution! It's only going to last two hours, though...</p>	<p>Virgo: AUGUST 23 - SEPTEMBER 22 You're the perfect child! How on earth could your parents ground you over break?!</p>	<p>Libra: SEPTEMBER 23 - OCTOBER 22 You're looking forward to plenty of family time... But maybe a little too much.</p>
<p>Scorpio: OCTOBER 23 - NOVEMBER 21 You spend days perfecting your homework over break! To your dismay, however, you did the wrong section!</p>	<p>Sagittarius: NOVEMBER 22 - DECEMBER 21 Lucky you! You are going to find yourself receiving the same gift...multiple times!</p>	<p>Capricorn: DECEMBER 22 - JANUARY 19 Are you sure you're on top of your homework? You may receive a surprise text about homework you forgot about before break ends!</p>





**Andrew
Backer**

Top 10

Things KAMSC Students Are Going to Do Over Winter Break

1. **Catch up on sleep.** Or at least attempt to do so. In all honesty, I could hibernate until June and I would probably still have dark circles under my eyes.
2. **Do homework.** AAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAAA!



3. **Travel to a warmer climate.** And what must one do when one visits Florida? Post a Snapchat with the temperature filter and several choice emojis, of course!
4. **Travel to a colder climate.** It's not like winter-lovers are crazy. Some people like snow and winter and skiing and snowboarding and hot chocolate and fun! Don't judge us.
5. **Travel to a local Starbucks.** Get a Frappuccino, and then return home ASAP.
6. **Brush their teeth.** Brushing your teeth multiple times a day is key to oral hygiene. I recommend brushing when you wake up, after lunch, and before bed.

7. **Shampoo and condition their hair.** Shampoo is used for cleaning, and conditioner adds moisture and volume to hair. It is recommended to use both products for optimum hair health.

8. **Drink water.** On average, a human can only last three days without water. With over two weeks off, most KAMSC students will ingest some H_2O . If water is unavailable in your area, Ms. Hampton has large containers of distilled water in her room.

9. **Breathe.** On average, a human can only last three minutes without oxygen. With over two weeks off, most KAMSC students will ingest some O_2 , CO_2 , and N_2 . If air is unavailable in your area, oxygen tanks are available at your local SCUBA equipment manufacturer.

10. **Shed some skin cells.** On average, a human loses between 30 and 40 thousand skin cells per minute. With over two weeks off, most KAMSC students will shed 700,000,000 cells. Coincidentally, that is also the number of calories worth of holiday cookies I will consume on my time off.

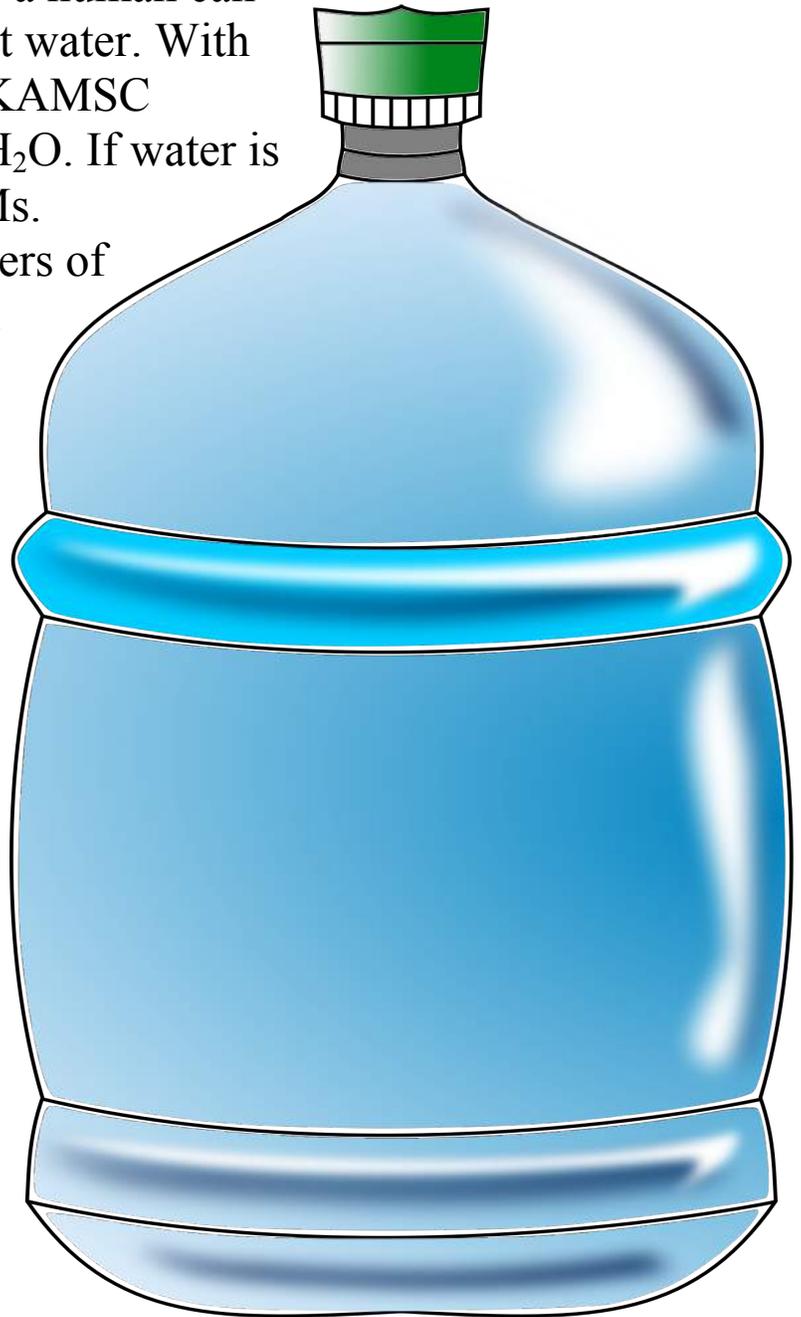


Figure 1. Large, rather unattractive water bottle with a strange cap. Water can be found in the chemistry lab.

The Dos and Don'ts of a Good New Year's Resolution



Daniel
Calco

As January quickly approaches, it's becoming time to begin planning out the holidays, and more importantly, New Years! As people all around the world welcome the year 2017, many will also be constructing New Year's resolutions too. If you're planning to participate on the first of January, it's good to come prepared knowing what is and isn't a good resolution, and how to judge between the two!

- DO - Set an achievable goal. Start small, and work your way up over the year. Goals are much easier to accomplish if you build upon previous successes.
- DON'T - Try to set a tremendous goal. Setting a goal of quitting something entirely or eating right at the start of the holiday will usually end in a failure.
- DO - Keep track of your resolution. One of the easiest ways to make sure you're making good on your promise is to track when you participate in the resolution. Whether it's on your phone, computer or a physical notepad, try it out!
- DON'T - Make your goal too easy. Something like "buy a _____", or "give mom a gift" are just a waste of the resolution, and won't give you any satisfaction upon completion.
- DO - Challenge yourself! Stepping out of one's comfort zone is a great way to learn new ideas or try new things.

- DON'T - Use a clichéd goal. These is stuff like "go to the gym" or "go on a diet." Be unique!
- DO - Focus on one goal. Setting two or three might be alright, but after this point things become a little extreme. It's better to do a fantastic job at one thing rather than being mediocre at several.
- DON'T - STOP! One of the biggest reasons why resolutions turn out to be a bust is because of people who lose steam! Only those who truly care about change and dedication will be able to see their resolution become reality.
- DO - Team up with friends! If your friends are likeminded about their goals, you should definitely team up! As a group, you'll be more likely to finish what you're trying to accomplish, as there will always be people cheering you on.
- DON'T - Push yourself to the limits. We're only human, and that's something to cherish. Forcing yourself to complete a task that is clearly impossible could end up being a risk. Take a risk, but know your limits. That being said, only extreme things would fall under this. Most things won't be impossible, and you should still give them your 100% effort.
- DO - Reward yourself. Completing a hard goal is something to be proud of, so treating yourself is fine so long as it doesn't outweigh what you're working towards.
- DON'T - Forget that this holiday is all about fun! Embrace the new year, and all of the changes that come with it. Have a great holiday season!

Cubs Curse Conquered



Andrew
Beering

GO CUBS GO! GO CUBS GO! HEY CHICAGO
WHAT DO YOU SAY, THE CUBS ARE GONNA WIN
TODAY! The catchy song “Go Chicago” was heard
throughout households across the nation as the Cubs created
one of the most improbable comebacks in baseball history.
For those of you who don’t follow baseball, the World Series



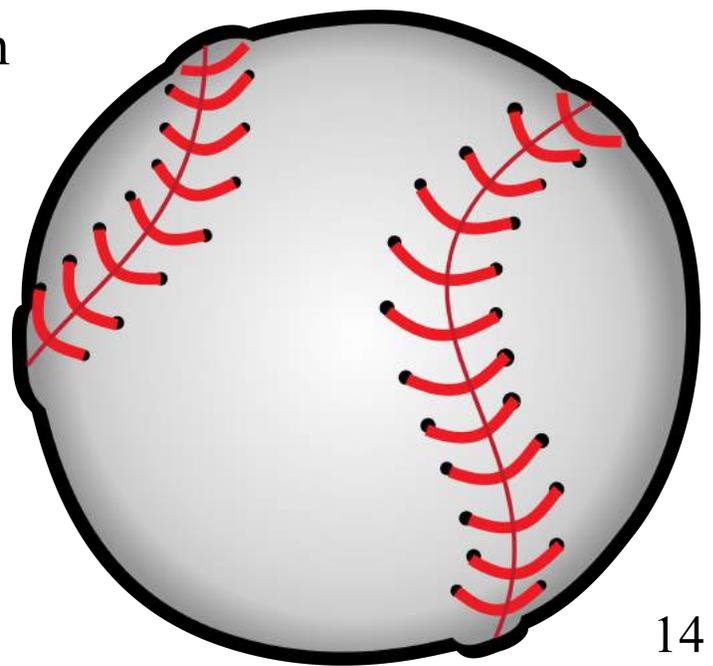
is a “best of 7”
competition. For 2016, the
Chicago Cubs faced off
against the Cleveland
Indians. After 4 games, the
Cubs were down 3 games
to 1. For you AP Statistics
students, that means the
Cubs had a 12.5% chance
of coming back to win.
However, beating those
improbable odds is only a
fraction of what’s most

impressive in this Cubs victory. The Cubs World Series
victory ended a 108- year World Series Championship
drought. This was the longest span of time between winning

championships in sports history. There are many who truly believed the Cubs were cursed.

Not only did the Cubs win this World Series, but they are set up for future success as well. Kris Bryant, the Cub's 24-year-old short stop is quite the ball player! He won the American League MVP award, only a year after winning AL Rookie of the Year award: he is the third person in baseball history to accomplish this. The Cubs have other young studs as well with Addison Russel, Anthony Rizzo, and the ever-imposing pitcher Jake Arrieta. The future in Chicago is bright! The next championship won't be over a century away!

The 2016 series went all the way to 7 games with the last game being played in Cleveland. It *only* took a five-hour game with a blown four-run lead, an 18-minute rain delay, and a heroic Ben Zobrist double to win game 7 and the World Series, but nevertheless the Cubs did it. The Cubs overcame adversity in many forms to win the series. We can all learn and appreciate the adversity, struggle, and will-power of the Chicago Cubs to win the World Series, traits we should aspire to have and utilize every day in our own lives.



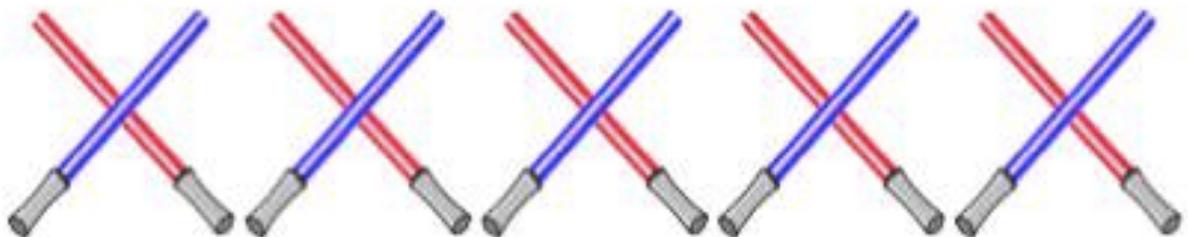


**Evan
Backer**

ROGUE ONE REVIEW

For those of you that haven't been connected to the world the past few months, there's a new movie in theaters. Rogue One: A Star Wars Story is a marvelous tale that takes place between Star Wars III and Star Wars IV. Overall, this movie was one of my favorite Star Wars movies of all time. With a well balanced amount of action and exposition, the film kept me entertained for every minute. In addition, I thoroughly enjoyed seeing characters featured in other films in Rogue One. For the diehard Star Wars fans, (@dragonphysics) don't worry. A brief cameo by R2-D2 and C3PO mean that still have been in every Star Wars movie. One of the only objections that I have for this movie was that the music used was not the same as the originals. However, I still highly recommend this movie as a must-see.

ANALYST'S RATING: 5/5





**Zoha
Aqeel**

Top Five Holiday Gifts

We all know that we have that one item, or *many* items that we desire as presents this time of year. Here are a few ideas to put on your wish list:

1) The Amazon Echo Dot

- a. This control device is one of the smallest, yet interesting devices created this year. It uses Amazon's Alexa to do specific tasks, and curated work for its owner. You *definitely* want this item on your list. Trust me, it's worth it.



2) The Apple Watch

- a. This new gadget has been the talk of the year. Upgrading from the old watch, the series 2 has the capability of going under water!



3) PlayStation VR

- a. This virtual reality system does not fail to provide an exhilarating experience. The PlayStation VR has the ability of "transporting" people various places.



4) TiVo Roamio

- a. With the TiVo Roamio, you will never have to miss a TV show again. This device not only provides access to recording multiple TV shows at once, but it also can grant connection to Internet and WiFi.



5) iPhone 7

- a. Although it's been a couple of months since the iPhone 7 came out, it is still worthy of being on your wish list. With new waterproof capabilities, and features, this new phone is still desirable.

THE EFFECT OF A RECIPE ON COOKIES

by
Lily Kitagawa and Andrew Backer

A Research Paper for KAMSC Winter Break
Kalamazoo Area Mathematics and Science Center Kalamazoo, Michigan 49008
December 23, 2016

Introduction

Cookies are commonly consumed around the holidays and are good. However, the taste and texture of most cookies are highly influenced by the recipe from which they are created. In this laboratory exercise, researchers examined the exact effects of a recipe on the cookie it produces.

Hypothesis

H₀: Effects of a recipe on the resulting cookie are due to chance alone.

H₁: The effects of a recipe on the resulting cookie are not due to chance alone.

Materials (Per Trial)

2.75 cups all-purpose flour	Protective gear (gloves, goggles, lab coat, etc.)
1 teaspoon baking soda	Oven
0.5 teaspoon baking powder	Thermometer
1 cup butter, softened	Stopwatch
1.5 cups white sugar	Beaker tongs
1 egg	Graduated cylinder
1 teaspoon vanilla extract	Stirring rod/magnetic stirrers
	2 600 mL beakers
	Cookie sheets

Methods

1. Preheat oven to 375 degrees F (190 degrees C). In the beaker, stir together flour, baking soda, and baking powder. Set aside.
2. In another beaker, cream together the butter and sugar until smooth. Beat in egg and vanilla. Gradually blend in the dry ingredients. Roll rounded teaspoonfuls of dough into balls, and place onto ungreased cookie sheets.
3. Bake 8 to 10 minutes in the preheated oven, or until golden. Let stand on cookie sheet two minutes before removing to cool on wire racks.

Results

Cookies were good.

Acknowledgments

Thank you to Stephanie from allrecipes.com for providing the recipe that was adapted for laboratory use. Thank you also to my mom for believing in me.

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