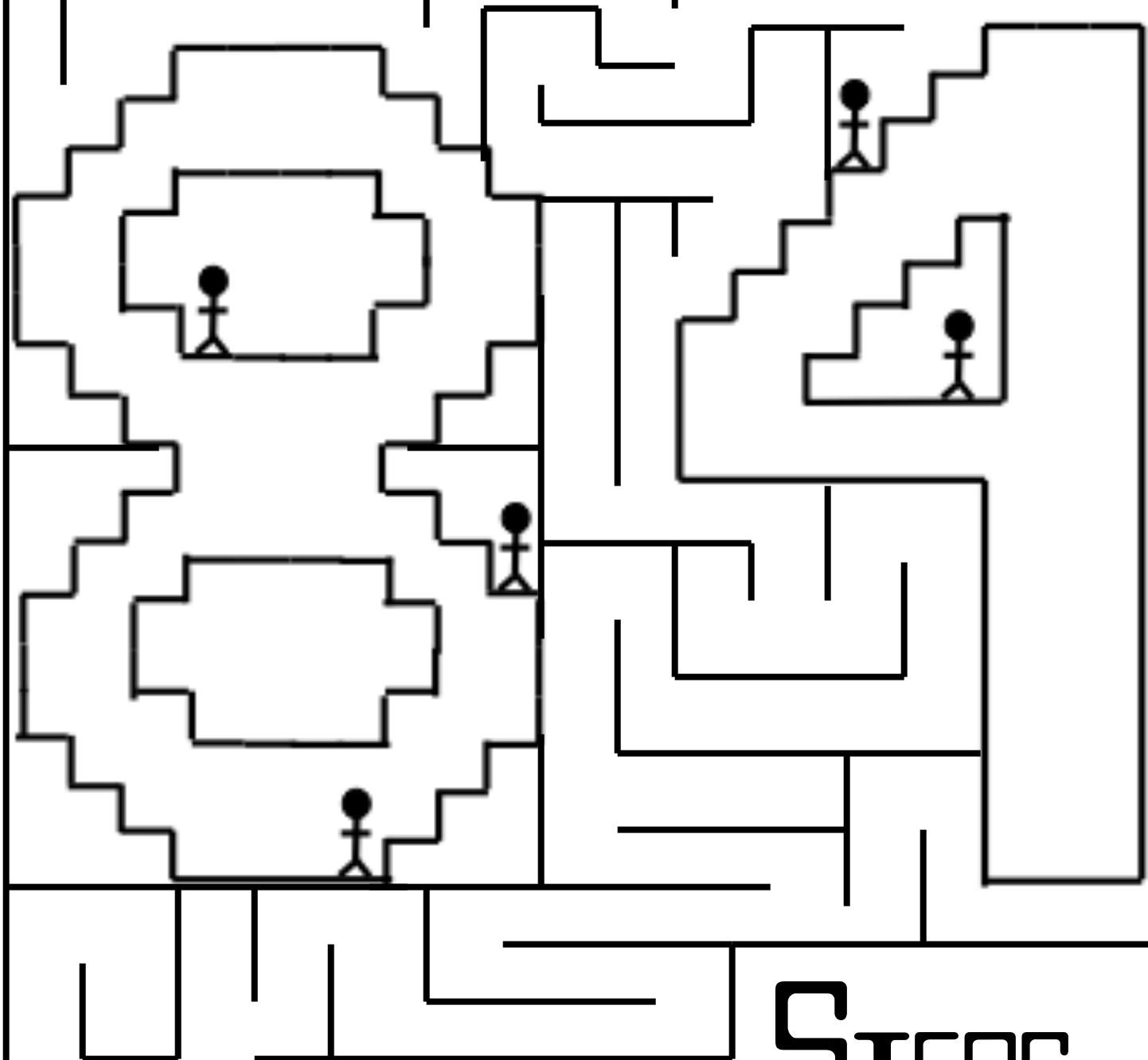


KAMSC's



STEPS

BACK TO SCHOOL EDITION

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Letter from the Editors

Welcome back to KAMSC! The 84 Steps staff hopes you had the most incredible summer, and we will do our best to help you have the best school year. We hope you consider 84 Steps a one-stop-shop for tidbits of wisdom from your peers, information about KAMSC goings-on, a couple of laughs, and (most of all) support. KAMSC is the most amazing place and we here at 84 Steps want to be with you through the ups and downs.

This first issue is a lot like the KAMSC experience: some more serious articles including a guide for surviving each grade and reviews of summer opportunities mixed in with some fun and comedy to forget school woes.

I'm Lily Kitagawa, your 84 Steps senior editor, with Andrew Backer as associate editor and Zoha Aqeel as junior editor. Please feel free to contact me about absolutely anything; of course I'll answer any questions about starting writing for 84 Steps (and absolutely everybody is welcome), but I also want everybody to feel comfortable reaching out to me for advice, support, or questions unrelated to 84 Steps. (I promise I'm nice!) Nobody at KAMSC should have to feel confused or alone; everybody here wants to support you and make KAMSC a caring community. We have the power to shape the KAMSC atmosphere into whatever we want. "It's only cool if you make it cool!"™

Your Editors,
Lily Kitagawa and Andrew Backer
lily.kitagawa13@gmail.com, kamsc84steps@yahoo.com, (312)-860-8017

P.S. Our cover page for this edition actually doubles as a maze/coloring page to reduce stress!

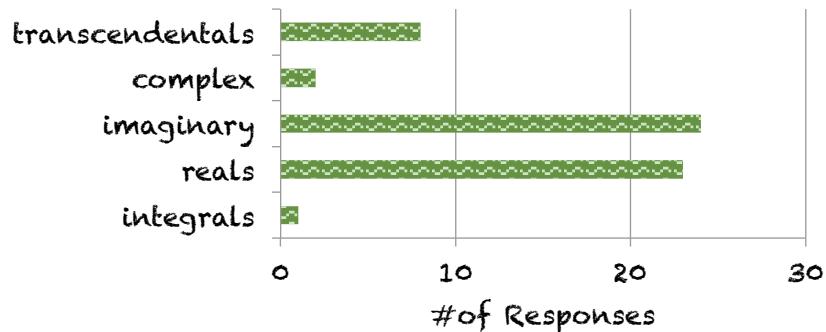
First-Year Survey

As is KAMSC tradition, some 84 Steps staff trekked out to first-year orientation to meet the class of 2020 and to ask some questions to get to know them a little better (and also to chow down on a delicious ice cream sundae)!

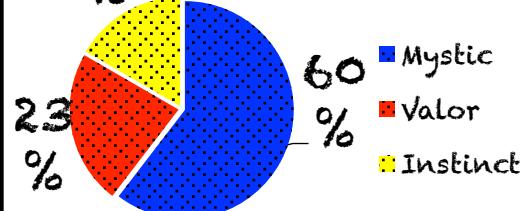


Lily
Kitagawa

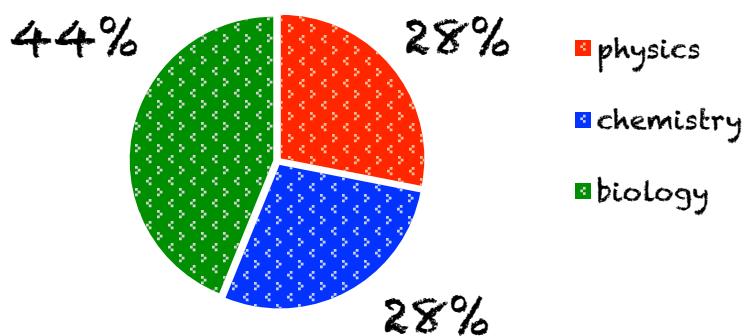
Favorite Type of Number



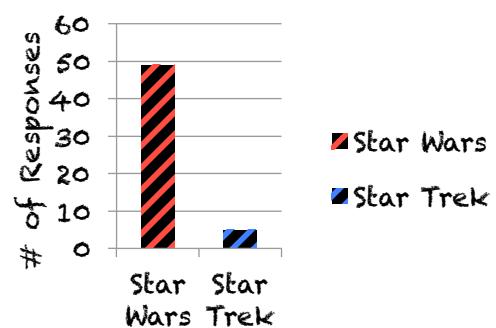
Pokémon Go Team



Favorite Science



Star Wars or Star Trek



Favorite Form of Caffeine



8



16



32



2



Jake
Crouse

How to Survive Your First Year

Hello, KAMSC first years! Now that school is really starting to move at a faster pace, you may be feeling a lot of stress in your life. Well, don't worry! These simple guidelines will help you make it through your first year here at KAMSC!

Biology



- Make sure that your Cornell Notes have a lot of detail—Cornell Notes are a great tool to use for studying, so make sure that you take the time to add all of the important information that you will need.
- Make connections—being able to understand the material in biology is obviously important, but making the connections between the different units you learn is just as important, and can really help you during exams

Math

- Stay on time with your work—push yourself to make sure that you're finishing all of your math homework on time so that you don't fall behind. In fact, it may be helpful to work a little bit ahead if you have an event such as a cross country meet coming up. The night you do extra work may be a bit miserable, but you'll feel so relieved knowing that it's done during your event!





. Be persistent—some parts of your math will be very challenging, and you will find them difficult to understand. Just like how a musician masters a musical piece if they practice it over and over again, if you keep doing math problems that incorporate a concept that is difficult to understand, you will master that part of your math too!

Information Technology

- Learn from your classmates—there will almost certainly be a time in which you are confused and unable to continue with your work during class. Don't just let yourself become stuck! Asking another classmate for help is a great way to gain a different perspective towards the program that you are using while also helping you become un-stuck.
- Be cautious of due dates—in your IT class, many projects will be completed over the course of several days. While this may make projects seem less stressful, if you put off most of your work to the due date, you will have a lot more difficulty completing it. Stay on top of your work during class!



Now that you know the basic steps to success in your KAMSC classes, you will most definitely survive this mysterious, confusing, and sometimes cringe-worthy first year of high school. Just remember to stay organized, always ask for help, and treat yourself to a cookie (or maybe a slice of pi?) every now and then—you deserve it!



Zoha Aqeel
Liya Jin

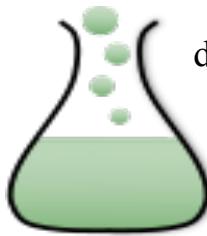


HOW TO SURVIVE YOUR SOPHOMORE YEAR

Welcome to the second chapter in your journey towards success, fulfillment, and sweet satisfaction! Another year means a

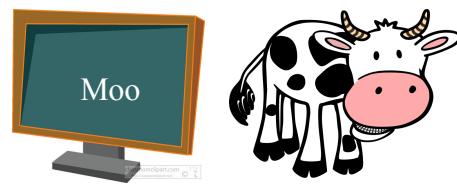
fresh set of teachers, new classmates, and a clean slate. So sharpen your pencils (or just refill your mechanical ones... don't you just love the precision?) and get ready to conquer sophomore year!

Chemistry:



While 9th grade biology and 10th grade chemistry are two entirely different areas of study, the positive habits and weekly routines that you have formed from your first year at KAMSC will surely continue through to your sophomore year. But, don't fret, a clean slate also translates as another opportunity to modify and solidify your schedule. Here are a few tips to subtly guide you in the right direction:

- Follow your labs step-by-step, and be sure to fulfill and repeatedly ask your teacher the guidelines and requirements for that specific lab.
- Feel free to ask your chemistry teacher for any assistance. Some topics in this class are truly *difficult*, and it's absolutely fine to ask for help.
- Form study groups with your friends! It's nice to have a support system that understands the vigorous KAMSC course that you are in.
- Try to ease into the school year by taking each assignment, lab, and test day by day. Don't take stress for non-existing situations.
- Take advantage of the big, fat, and information-filled chemistry book that you get on the first day of school. Every test will have material either from your book, class notes, or labs. Use all three, and you'll be prepared for every quiz, test, or exam that comes your way.
- Take good notes—don't slack off during class. Read your notes every day, grasp the concept, and solidify it.



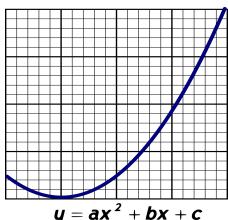
CS:

Quell whatever fears you may have about the intriguing realm of computer science: in the end, the simple truth is that you'll get out of this class what you put into it. No, you don't spend the entire class hunched over in complete silence, fingers furiously typing away as endless lines of code sear themselves into your retinas. 10th grade CS includes everything from Steve Jobs, to subtracting 6-digit numbers by hand, to the occasional piece of candy flying through the air. Throughout the school year there will be lots of opportunities thrown your way, some fairly subtle, and some not-so-much. Here are a couple of things to look out for:

- Attempt the USACO problems. It may seem like something you can totally blow off so you have more time to do things like go on all of your social medias, but at the very least you owe it to yourself to try.
- You might want to try and make it to a programming competition sometime: it's an exciting, invigorating experience with lots of your favorite people.
- Sometimes you may feel like you're trying to pick away at a problem with a toothpick while other people are equipped with chainsaws: don't worry, you'll get it. If you find yourself completely unable to get where you need to, though...
- *Never* be afraid to ask for help. Your most valuable resource in the classroom: the to your left and to your right. Of course, don't come to rely on others to the point so heavily where you become unable to see solutions for yourself, and above all, don't underestimate your own intelligence!



Math:



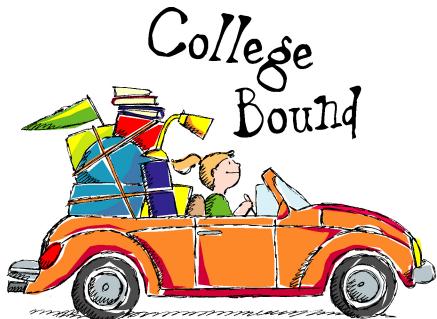
As the foundation for all your other KAMSC classes and basically all of science, math remains and will never cease to be one of your most important subjects, whether sophomore year in high school or senior year in college. Regardless of whether you enjoy math or not, you have to admit there are undeniable advantages to being fluent in the language of numbers, so keep these things in mind:

- Don't just zoom through your homework, understand it, and work through it. If you blow it off, you'll find it difficult to grasp concepts the night before the test.
- Ask questions during class! There is a reason that the teachers go over all the most difficult questions.
- Do all the helpful supplements that Mr. Milka gives you. They're extremely useful and can prepare you for your tests.
- Come in during open lab to clear up any confusion you have.
- Use the same study groups you have for chemistry before you have your math exams (or create new ones), so that you can revisit all the topics with the help of others.
- As for Mr. Alshehri's future students: study long, hard, and way ahead for Mr. Alshehri's tests. His first quiz can come as quite a rude awakening to students who think his class offers any room for slacking off. But don't worry, as teachers go, he may very well be one of the nicest: he's patient, and will be happy to assist you if you come in before class with any burning questions.
- It never hurts to join the math competitions that KAMSC participates in. It's a new, challenging way to explore the extent of your mathematical knowledge, and you might just end up surprising yourself.

So there you have it: our take on the trials of KAMSC's second year. If you watch out for the pitfalls and capture each and every opportunity you're presented with, I guarantee that you won't be disappointed. Study hard, sleep hard, make new friends, and don't forget to breathe!

HOW TO SURVIVE YOUR JUNIOR YEAR

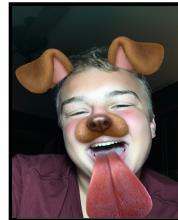
Congratulations on surviving your second year at KAMSC and finally becoming an upperclassman! By now, you've probably heard that junior year is going to be your



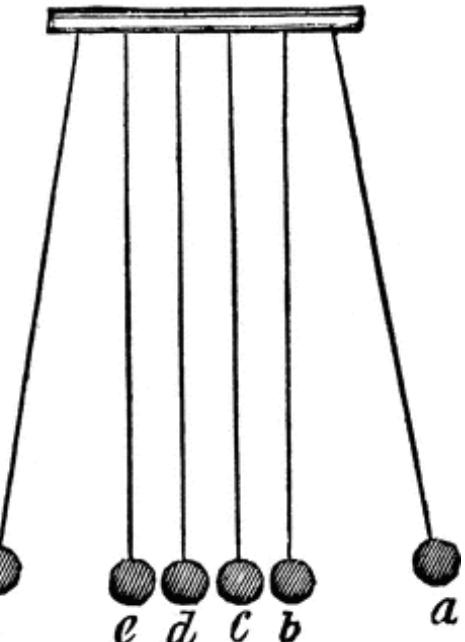
toughest school year ever. Between your extracurricular activities, AP and IB courses, and seemingly endless standardized testing, not to mention the added stress of the college application process (which doesn't seem so far away anymore), you're bound to feel pretty burdened at times. However, this is the best opportunity you've got to prove to colleges that you have what it takes to succeed in your future academic career, so it's super important that you persevere in order to have your best academic year yet!

There's a lot of perks of being a junior at KAMSC. As you hopefully already know, juniors get to choose one elective in addition to their math and physics classes. Even though you get a choice this go around, it's still super important that you keep up with your work and participate in your elective. Going to Open Lab, doing practice problems, and paying attention to lectures are still major keys to success (Major Alert). This year, you'll be going to class with us seniors, and you are always welcome to ask us for help on that physics concept that you just can't quite grasp. Seniors are also excellent options for tutors in any class that you may be having trouble in. The best perk of being a junior is that you go to KAMSC in the afternoon, which is WAY better than going in the morning. It's super easy to talk to teachers after school, which is something you should definitely take advantage of. Not only is it incredibly beneficial to your GPA, but teachers absolutely love it when students come in with questions for them. It's also a great way to build relationships with your favorite teachers, which definitely comes in handy when you need to ask for recommendation letters.

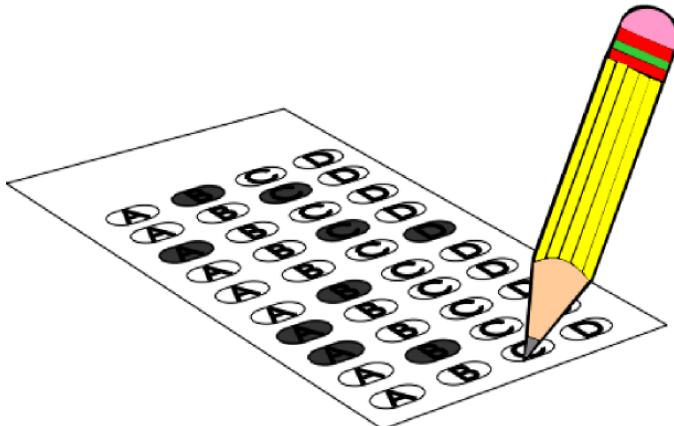
There's only one more new obstacle (anotha one) you'll have to tackle during your junior year: Mr. Sinclair's physics class. You've heard the rumors. Physics is one of the hardest classes you will take at KAMSC, but its taught by one of the best, albeit intimidating, teachers you'll ever have. First things first: you will struggle in your first quarter of physics. This is coming from a person who got 62% on his first physics exam. Physics requires a different type of thinking and a different way of approaching problems, so it takes time to understand how to do physics. However, there's a few battle-tested strategies:



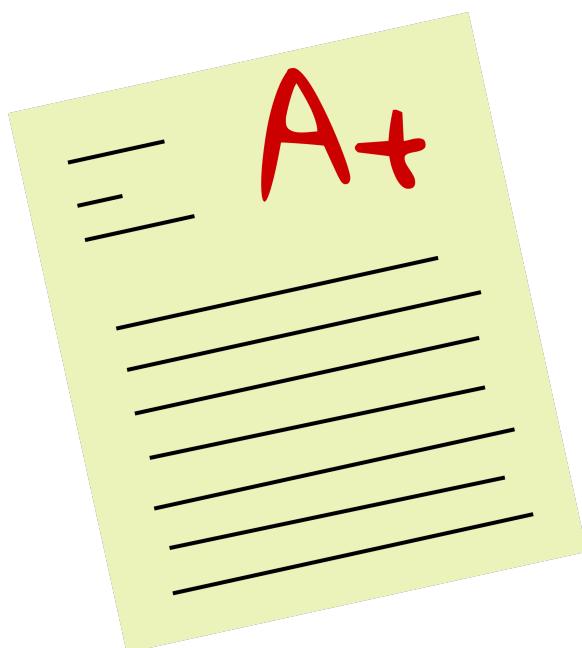
Andrew
Backer



1. DO THE PRACTICE PROBLEMS! I cannot stress this enough. They are the only way to be able to understand the concepts well enough to ace a quiz. Just because you understand how to do a problem when Mr. Sinclair guides you through step-by-step in class, doesn't mean you will be able to do it on your own under a time constraint. If you don't understand how to do a problem, ask Mr. Sinclair after school.
2. Organize a study group! It's much more fun to do all of your practice problems the night before a test when your best friend is right next to you. Also, you can always count on your friends to help you out when you don't fully understand a physics concept.
3. Pay close attention in class! Mr. Sinclair's lectures are extremely interesting, so it's not hard to stay awake. Make sure you write down all of the details, because you never know what might pop up as a true or false question on a quiz. (Pro tip: Always know whether a quantity is a vector or a scalar.)



Junior year is definitely going to be stressful, but a mental breakdown is just a solid sign that you're on the right path to setting yourself up for a solid academic future. Keep up the same great study habits you've learned in your past two years at KAMSC, and you'll do just fine. Good luck!



HOW TO SURVIVE YOUR SENIOR YEAR

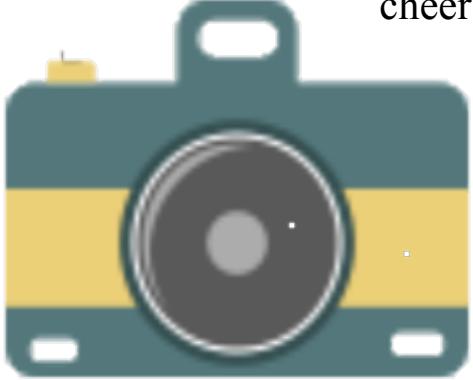


Simran
Singh

Class of 2017,

Welcome to senior year! I hope that after writing numerous college and scholarship applications you have enough energy and motivation left in you to read this. While some of this advice may sound cheesy, I hope it helps you succeed in your last year at KAMSC.

- 1. Enjoy the “last firsts.”** Go to your last first football game of the season and cheer your heart out. Let your parents take pictures of you on your last “first day of school.” Don’t miss out on opportunities with your friends and family because you’re “too busy.” Soon enough, the day you’re waiting for will come: your last “last day of school.” Although the idea of it seems perfect right now, the day itself is actually bittersweet. You may not believe me now, but take my word for it and enjoy the time you do have with your friends and family.

- 
- 2. Don’t procrastinate.** Yeah, I know, you’re laughing as you read this because you know it’s nearly impossible to ward off procrastination as a senior. It’d be a hypocrite if I told you that you should always do your homework every night in a timely manner. But, I will tell you this: DO NOT PUT OFF COLLEGE APPS. If you only take away one piece of advice from this letter, take this. You don’t want to be that kid who has to sit home alone on Halloween rushing to finish 18 essays instead of watching scary movies or going out with friends. Pay attention to application deadlines. While the common app closes on October 31, many colleges have earlier deadlines starting from as soon as mid-September. Complete your applications as fast as possible; as the school year progresses, you’ll have more and more to do in less time. Use your time wisely, even if it means not watching Netflix until your college applications are complete.



3. Don't overdo it. Be reasonable. You've made it through the first three years of KAMSC, so you've definitely got the hang of it. Use your judgment wisely. Don't pull all-nighters to work on college apps or sign up for 4 KAMSC classes at a time (unless you think you can handle it). Even then, don't waste your time stressing about homework, lab reports, and exams like you have done in the past. It's your senior year! Enjoy it.



4. Avoid senioritis. Don't use "oh, it's senior year" as an excuse to not do your homework or skip days of school. Just like any other year, you want to try your best and be proud of the work you do. Keep your attendance up. Although KAMSC doesn't have a limit on how many absences you can have, your home school does. You definitely do not want to be the senior who has to make up days after all of your friends are out of school. In some cases, you may even be required to take an extra exam if you have too many absences for a certain class. Also, after you've

committed to a college, don't let your grades slip. After committing, it gets harder to stay on track and be motivated to do your homework and study for tests, but keep this in mind: colleges may retract admission if you let your grades fall too much.

5. Have fun. Between college applications and keeping up with KAMSC homework, it's easy to forget to have fun. Enjoy your final year at KAMSC and end it with no regrets. Help set up and go to the KAMSC dances with your friends. Attend class clash and eat more pie than your competitors. Go to film fest and pull your last all-nighter with your class. Although you may complain on a daily basis about walking up the 84 Steps and having to spend hours studying for KAMSC tests, know that it's worth it. Three years down, one to go. You've got this!





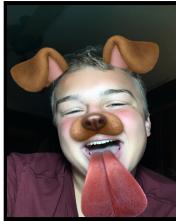
Arya
Shembekar

Top 10 Back to School Tips

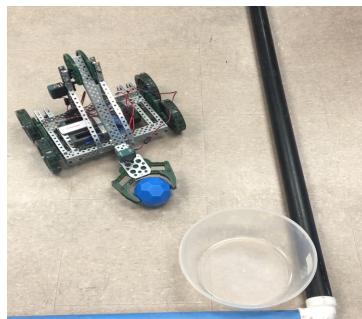
1. Plan ahead! Whether it is jotting your homework on a planner, phone, or your hand after class, planning beforehand will save you from last minute panicking when you forget what needs to be done for each class.
2. Establish a routine. Getting into a solid routine will keep you organized once school clubs and sports kick off.
3. Stock up on school supplies. I speak from experience when I say NO ONE wants to take trips to Target at midnight. Buy extra poster board, glue, and sticky tape in advance to avoid stressful nights.
4. Pinpoint a study area. If your home is always hectic and noisy, find a local library to work, in order to keep you focused on the next test.
5. Communicate with teachers. Don't be afraid to ask questions! Write down all your questions before approaching your teacher in order to save time.
6. Determine boundaries between social and academic life. If you are always occupied by academic life, take time to visit friends and enjoy a night off. However, if your social life is consuming you too much, it's time to step away from friends that may distract you.
7. Have a hobby. Stepping away from school work and partaking in a hobby will keep your spirits high and rejuvenate you, taking your mind away from the rigor of school work.
8. Don't skip breakfast! Having a healthy breakfast is crucial to your health and boosts energy needed throughout the day. Though it is tempting to just pop a granola bar in your mouth before walking out the door, consuming rich food like eggs, milk, or oatmeal will kick start your day.
9. Exercise! Simply taking a walk outside or roaming around your house will wake up your brain cells and keep you energized for the busy night ahead.
10. Above all, sleep! With a solid routine and strong organization skills, it is possible to get in bed before 1 am. In order to get a good night's rest, avoid using technology before going to bed. Don't let the device put you to sleep.



MICHIGAN STATE UNIVERSITY HIGH SCHOOL ENGINEERING INSTITUTE REVIEW



Andrew
Backer



I had the privilege of attending the High School Engineering Institute (HSEI) at Michigan State University this past summer, and I would HIGHLY recommend this program for any student that is considering going into engineering in college. It is one week long and the cost is \$825, which is a small price when you consider all of the amazing experiences you will find at this camp. Each day, you will learn about a different type of engineering and get an inside peek at what life is like for a college student majoring in each of those areas. You will be given an in-depth look at mechanical, electrical, computer, biosystems, civil, chemical, material science, and environmental engineering. Personally, I am a big fan of numbered lists, so here are the top five reasons why you should go to HSEI.

1. You get to go to REAL college classrooms and get taught by REAL college professors who are experts in their field. Each of the professors leads you through a hands-on activity that is incredibly informative and entertaining. They are great resources for any questions you may have about their engineering specialty.
2. You get to experience what it's like to live in a dorm room. Spoiler alert: dorm rooms are not very spacious.
3. The college students that lead your group throughout the week are super fun and could not be more helpful with any questions you may have about applying to college, being in college, going to graduate school, etc.
4. One student per session is selected for showcasing an innate desire for learning and exceeding expectations in the activities that are done for the professors, and that student receives a 2,000 dollar MSU scholarship.
5. You get to eat 3 meals a day at Snyder Hall. If you don't already know how good the food is at Michigan State, then a quick Google search will have you drooling in minutes.



POKÉMON GO SURVEY RESULTS



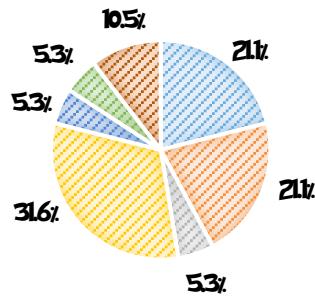
**Amirah
Bin-Mafouz**



"Mr. Potato Head" and "Worm Tail" tied for the best name for Raticate (31.6%)

BEST EEVEELUTION

- Jolteon
- Flareon
- Glaceon
- Vaporeon
- Umbreon
- Leafeon
- Espeon



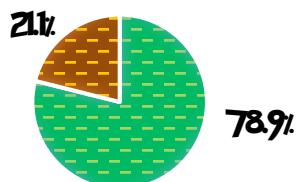
TEAM

- Mystic
- Valor
- Instinct
- None

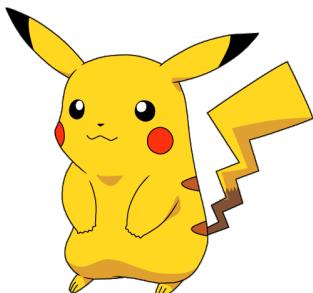


CATERPIE OR NEEDLE?

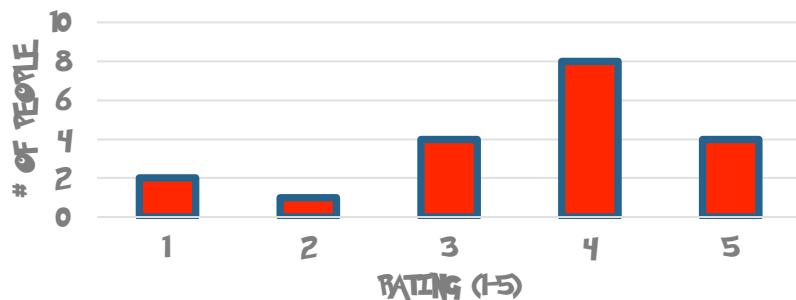
- Caterpie
- Needle



68.4% of survey-takers voted "Spicy Cheeks" as the best name for Pikachu

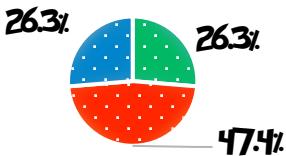


Pokemon Go Satisfaction



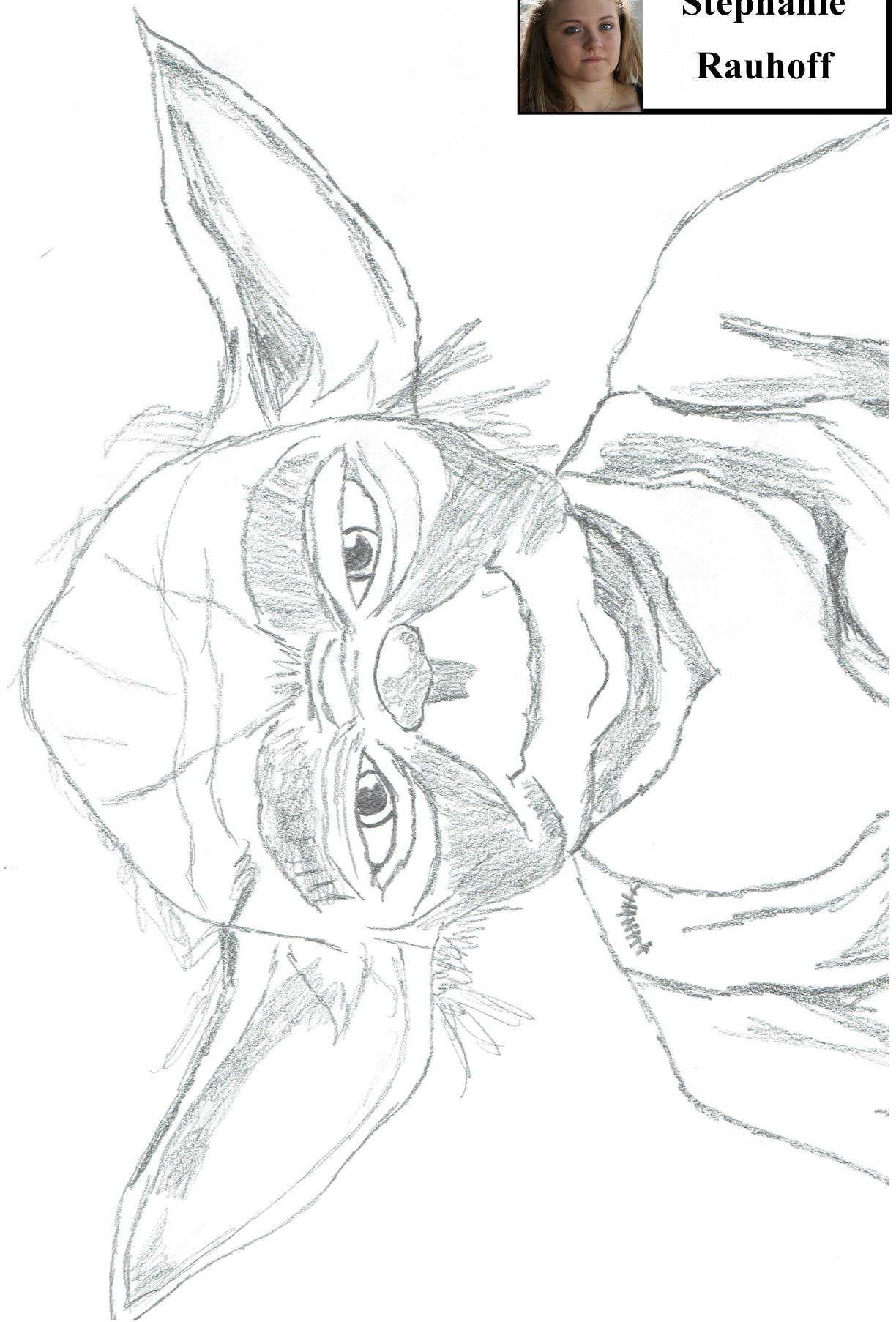
FAVORITE STARTER POKEMON

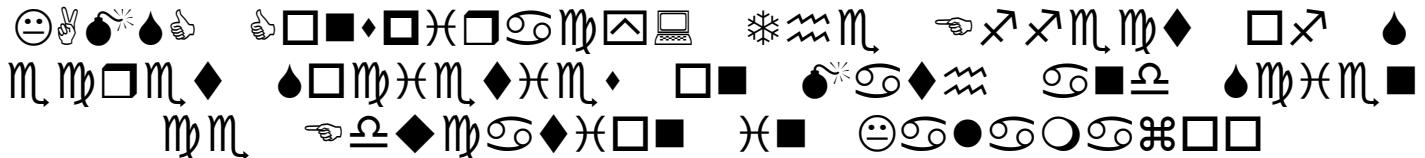
- Bulbasaur
- Charmander
- Squirtle





**Stephanie
Rauhoff**





KAMSC Conspiracy: The Effect of Secret Societies on Math and Science Education in Kalamazoo



Ava
Wood



Introduction

Secret societies such as the illuminati have held the interest of conspiracy theorists for years. And, ever since the advent of the internet, it has become even easier for the public to speculate about such societies. Typically, people only think of these societies as abstract concepts or folklore. However, if there is any truth to these conspiracies, then the influences of secret societies should be evident in even the most common places. To this end, this researcher intends to investigate the effect of secret societies on math and science education in Kalamazoo.

Hypotheses:

h_0 : variation in math and science education in Kalamazoo is due to chance alone.

h_1 : variation in secret societies has an effect on math and science education in Kalamazoo.

Methods and Materials

Materials:

MacBook Air laptop

Aluminum foil hat

Methods:

The researcher donned the aluminum foil hat in order to avoid government surveillance. The researcher then proceeded to do extensive research on the internet using the computer.

Results

This article is in the 84 steps. The natural connection to make here is to 1984, the novel by George Orwell. Orwell is also known for writing the novel Animal Farm. One of the most important kinds of animals on a farm are cows. And, is it such a coincidence that cows are the main theme of USA Computer Olympiad problems? Shannon Houtrouw, the computer science teacher at KAMSC, uses these problems to teach his students how to code. "Shannon" has seven letters. There are also 7 parts in a journal article (you're welcome, first years). As you can see, this researcher was slacking on this article. There are also 7 days in a week. The "ee" in the word "week" is the hexadecimal representation for the decimal number 238. 238 also happens to be the most common isotope of uranium, which is can be used to build thermonuclear bombs. But, KAMSC does not have any connection to nuclear bombs... right?

The important part of the word "week" is not the "ee", but instead the "wk". "Wk" refers to the W.K. Kellogg Bird Sanctuary. According to Google maps, it takes approximately 30 minutes to drive from KAMSC to the Bird Sanctuary. 30 divided by 10 equals 3, a number commonly associated with the illuminati. Coincidence?

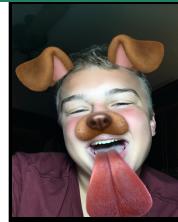
Crossword: Things that Make KAMSC a Great Place to Be

Across

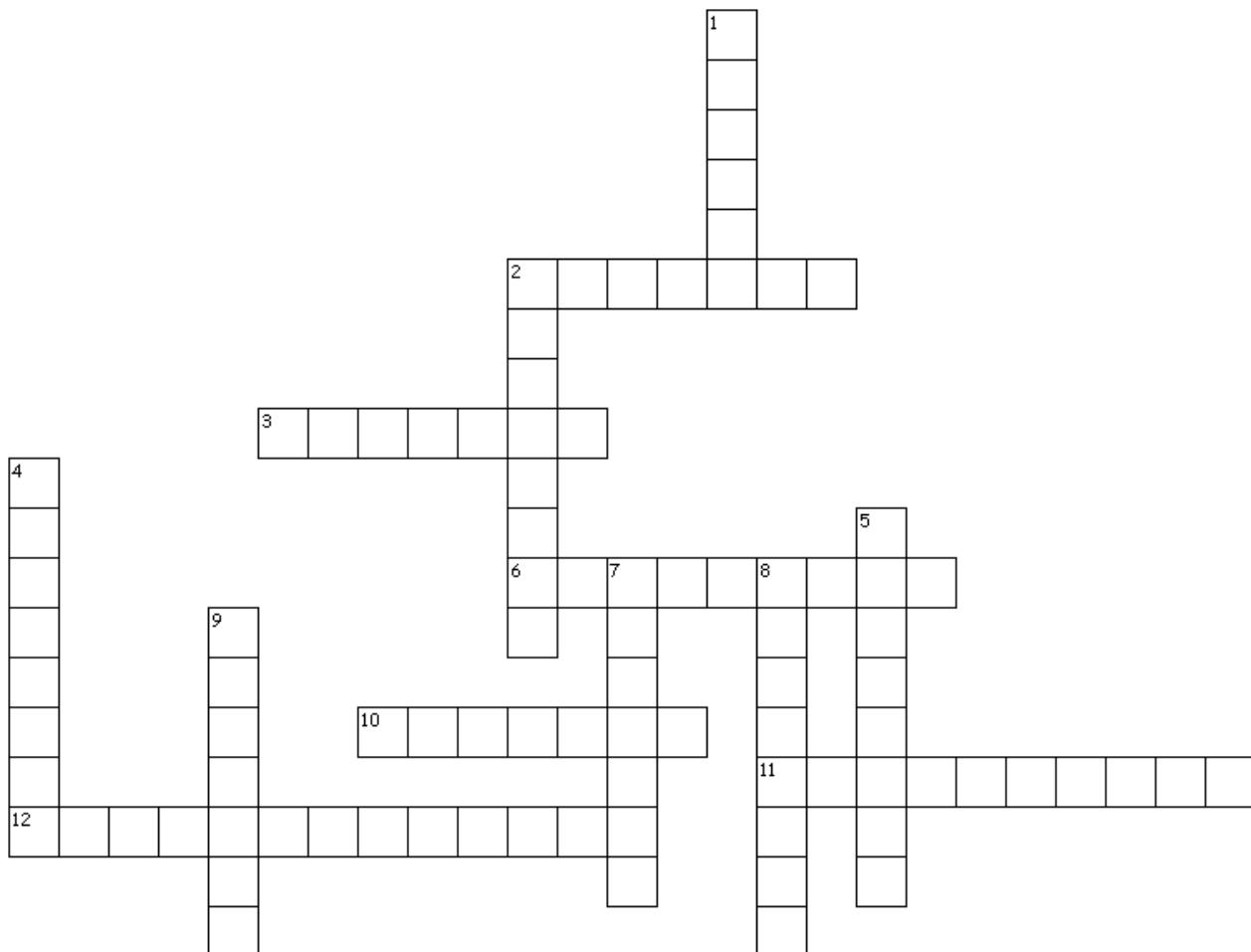
2. Every Wednesday, you can come to this event after school to catch up on homework.
3. Mr. Houtrouw takes these groups of people to every programming competition
6. You should put these in your schedule if you want to earn college credit
10. She is the student advocate and is a big help in every student's college application process
11. Mrs. Hach is in charge of this group of recycling advocates
12. This group of students is in charge of planning many KAMSC events

Down

1. This school dance is held every year in the gym
2. First years and sophomores participate in this device-building competition
4. These people are the heads of the classroom and have true passion for what they do
5. Every student completes one of these projects per year
7. Mr. Sinclair is the coach for this undefeated, state-championship-winning team
8. These people have a passion for learning and make fantastic friends
9. This newspaper is just about the best thing you are going to read all day



**Andrew
Backer**



Student Senate Update



Danielle
Janowicz

Want to help plan dances?

Have suggestions to improve KAMSC?

Interested in organizing community service events?



Student Senate is the place to do all of that, and more! We also vote on dance themes, dress up days, organize food can/book drives, and whatever other suggestions our Senate members have to offer. Meetings are very fun, and a great way to meet new people of all grades. And they usually run for about 15 minutes, no more than 30. Joining Senate requires very low time commitment, all we ask is that you come to as many meetings as you readily can, and volunteer as much as you would like to—whether that is every event or maybe only one or two! This is also a great way to gain leadership experience while helping to make our school a better place.

Head to Mr. Sinclair's room after Open Lab (7:30-8) and check out this great opportunity to give back to both KAMSC and the community!

We hope to see you there!

Look at the board near Ms. Hach's room above the drinking fountain for more information.



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