

Middleview

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The Ocean Cleanup

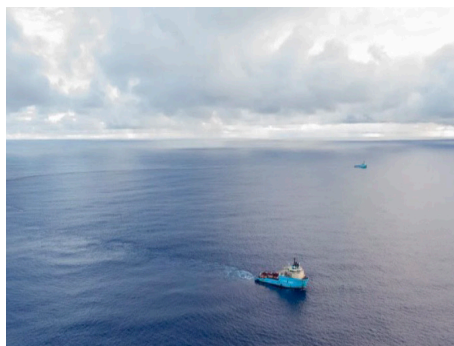
By Mark Li



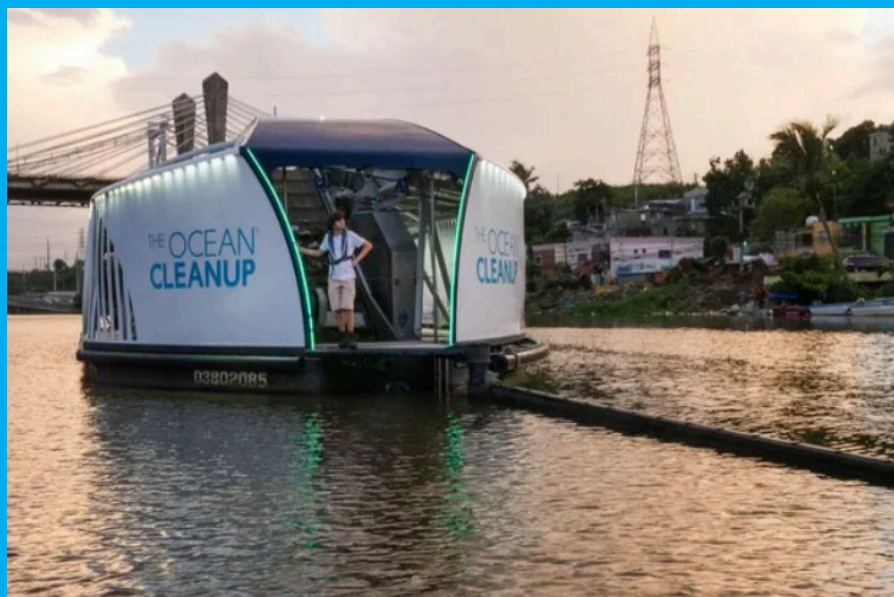
You may have heard of the largest garbage patch that exists in the ocean, The Great Pacific Garbage Patch, located in the North Pacific Gyre. These large accumulations of garbage occur as a result of rotating ocean currents known as gyres. Gyres pull garbage closer to the center, where it becomes trapped. The Great Pacific Garbage Patch carries roughly 79,000 metric tons of debris, and is around 3 times the size of France, according to The Ocean Cleanup. Other garbage patches include: The North Atlantic, The South Atlantic, The South Pacific, and the Indian Ocean garbage patches.

There are many efforts to clean up the garbage patches, but the sheer amount of garbage trapped in the gyres makes cleaning garbage from these patches difficult. The

Ocean Cleanup is a non-profit organization that develops and uses technologies to clean up garbage in the oceans. Over a period of ten years, The Ocean Cleanup has managed to remove millions of kilograms of debris from oceans and rivers globally. Their aim is to clean up 90% of floating plastic polluting the oceans. The Ocean Cleanup creates artificial coastlines, where u-shaped barriers capture garbage as the system moves, powered through active propulsion. As of current, the non-profit has collected 9,110,206 kilograms of trash.



To tackle river pollution, The Ocean Cleanup uses technologies such as the Interceptor Original, a 100% solar powered machine that collects garbage in rivers autonomously in strategic locations.



The Solar Eclipse

By Grace Fang

I'm sure most of you observed the solar eclipse that occurred on April 8, 2024. But what exactly is it and what makes it so special? A solar eclipse occurs when the moon blocks the sun and casts a shadow over the earth.

Many individuals travel far to get to experience total darkness. My family and I traveled North near Canada to

see the total eclipse, where the entire sun was obscured. When wearing my glasses, I felt such interest and excitement, I immediately started taking photos to capture the darkness and the shadow. It was pretty amazing, right? That's why SMS decided to purchase glasses for all students and give them the special opportunity to witness this special event.



The Summer Olympics 2024

By Lilian Li & Stuti Dutta

It's almost time for the Summer Olympics, which take place every 4 years. This year they will be held from July 26 to August 1st in Paris, France. A total of 32 sports are featured in the Summer Olympics. Some of these sports include golf, fencing, gymnastics, boxing, mountain biking, table tennis, tennis, artistic swimming, diving, water polo, marathon swimming, volleyball, weightlifting, wrestling, equestrian, sailing, triathlon, taekwondo, track & field, surfing, judo and a ton more. According to Yahoo Sports, 10,500 athletes, representing 206 countries, and approximately 120 heads of states, sovereigns and heads of government are expected to attend.

The Opening Ceremony will begin at 8:24pm (20:24 - get it?) in Paris, so 2:24 pm EST. You can watch various Olympic events on USA network, E!, CNBC, Peacock, Telemundo, Hulu, YouTube TV, Fubo, Sling TV, DirecTV stream and a few more!

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The Wacky Side of the USA

By Elle Chiu

Do you like Did You Know books? Are you bored and just want to read some weird stuff that’s 100% true? Then this article won’t disappoint; it’ll show you some weird laws, holidays, and more things that will wow you about our country.

One weird day is on January 23—Snowplow Mailbox Hockey Day. Snow plowers clear the streets and try to knock over as many mailboxes as possible—5 points for each mailbox, and 20 if the mailbox flies across the street. Later in the summer, it’s Sneak Some Zucchini Onto Your Neighbor’s Porch Day on August 8th. It’s just for fun and it’s certainly entertaining to watch your

neighbors open the door to find a vegetable! A third silly holiday is October 2: National Name Your Car Day. No explanation required. Some popular names are Baby, Bertha, & Beast.

There are also some entertaining laws, too! For instance, one might describe a pickle as green, bumpy, made from a cucumber, etc. But in Connecticut, there is one more criteria: it has to bounce to be called a pickle. Parties are also different in Mobile, Alabama where owning confetti isn’t allowed. Additionally, forced happiness may have been used often in Pocatello, Idaho where it was once considered a crime to look gloomy! Do you believe in myths like Bigfoot? People in Skamania County, Washing-

ton, apparently believe so--it’s illegal to hunt him! Finally, an unappetizing law—you can take roadkill off the highway and cook it for dinner in Montana!

The U.S. also holds some strange records. One such record is held in Arizona, and it relates to phones. How many selfies do you take a day? Probably not as many as Patrick Peterson—he took 1,449 selfies in 1 hour! People in North Dakota also take their snowfall seriously—in 2007, 8,962 people gathered and set the record for most snow angels made simultaneously. Finally, Washington holds the record for the most expensive hot dog at \$169!

Hope you enjoyed learning some strange facts about your country!

Oh, Brother! (or Sister):
Dealing with Younger Siblings

By Elle Chiu

The air is filled with shouts, yells, voices. Occasional crashes intermix with the chaos. Is it crazed fans at a Taylor Swift concert? Nope. Just your siblings. If you have siblings like I do, you know life isn’t smooth sailing. Noise, fights, and affection all come with younger siblings, and my first-hand experience will give advice for dealing with them.

Do your siblings annoy you often? Let’s say they keep asking you the same question 1,000,000 times, or bug you when you do homework. If you’re feeling nice enough, let them play with one of your things to have them go away, or patiently tell them you’ll play with them later. If they’re being a complete pain, here’s a good tip: always have some good dirt on your siblings, things that people (especially parents) shouldn’t know.

Being an older sibling means you have to be on high alert, especially if your siblings are natural disasters. Fast reflexes are important, as well as caution. Some things to look out for when your siblings are running around are things on tables/raised surfaces, like

cups, decorations, etc. For instance, if your brother is playing at the dinner table, probably best to look out for cups nearby, in case he’s likely to knock it over. Another important thing is to be able to read the room. This is vital!! If your sister is stressed about schoolwork, it’s best to not start talking about how free you are from homework. This could make her snap—fast. Being able to read the room will help you solve problems between your siblings, make sure their mood stays in control, and saves you trouble.

If you have at least one sibling, you know one thing is unavoidable—fights. With 2 siblings, that’s probably at least one fight per day! When your siblings fight, they mean business, and often this means as the older one, you have to be able to be a peacemaker. To be a peacemaker, you have to be patient and impartial. Make sure you listen to both sides before punishing or scolding, that way it’s most fair (try not to play favorites, and make sure each person can speak without interruption). Then, come up with a solution that makes everyone happy. For instance, combine their ideas,

or have them play in different places.

Finally, here are some methods to maintain your sanity when dealing with your younger siblings. One of them is ignorance, like when your sibling won’t stop talking. It’s a little difficult, but once you get it, you’ll not only be able to block them out, you may get a kick out of their reaction! Another useful method requires quick thinking, and it deals with the very common “why?” questions. The idea is simple: every time your sibling says “Why?” come up with a simple answer and reply. This is very useful, and your sibling will stop eventually, either tired from answers or from parent intervention. A third method to control your siblings is 1-2-3 magic. It’s simple—when your sibling annoys you or is on repetitive behavior, even after you tell them to stop, say, “That’s one.” Once they get to 3, they get a time-out (side note: this may not work on all siblings).

Hope this helps with any siblings issues!

Handmade Kimchi

By Isabella Oh

For as long as I've been alive, my grandma's handmade kimchi has always been an important part of my life. Not only is it a traditional Korean dish, it holds many memories.

Every year, at the end of fall when it starts getting chilly, my grandma, my mom, and I would all sit in the kitchen to make batches of kimchi. All three generations gathered around the big red bucket with piles of radish and cabbage, ready to be turned into a delicious side dish. With our clear gloves on our hands, we poured, mixed, and tasted. Until it was just right. It would take the whole entire day, but we would always talk and laugh. Hours felt like minutes. Everyone was exhausted when it was done. My grandma sealed the containers tightly and

gently took the freshly made kimchi and refrigerated it to fermentate over the winter. Although it was time consuming and tiring, we would have a one year supply of kimchi that came with more than just deliciousness, it included heartwarming memories that I could never forget.

Every time guests come over to eat or it's just a regular dinner with family, there is always kimchi. It is made of radish, cabbage, and a hint of love. It tastes like a perfect mix of sour and spicy, and tastes good with anything. You usually take a spoonful of rice and use your chopsticks to gently place your kimchi on top. It crunches at every bite you take and I knew exactly when the jar full of kimchi was opened. The sour vinegar smell that fills the room is a childhood scent for me that reminds

me of home, and my family.

At every dinner event, the bright red-orange pieces of radish are placed in small side dishes. The guests take one bite and are all mesmerized by the delectable taste. Their "wow's" and their "mmm's" would always bring my grandma happiness. It can't be dinner without my favorite nostalgic Korean food. My grandma's homemade kimchi.

Kimchi Recipe:

- 10 napa cabbages
- 2 cups of fish sauce
- 5 cups of sea salt
- 5 cups of gochugaru (red pepper flakes)
- 1 cup of minced garlic
- 4 tablespoons of minced ginger
- 1 large minced onion
- 7 chopped scallions
- 5 tablespoons of sugar
- 1 chopped radish
- ½ of a korean pear

- Step 1:**
Cut each cabbage into 4 pieces and sprinkle salt on top. Turn the cabbages over to salt evenly.
- Step 2:**
Few hours later, rinse the cabbage in cold water a few times to clean thoroughly then drain the cabbage.
- Step 3:**
Make the kimchi paste by adding all the ingredients. Mix the ingredients well.
- Step 4:**
Put the kimchi paste into the cabbages and mix.
- Step 5:**
Put it all into an air tight sealed container and place at room temperature for a day.
- Step 6:**
The next day, refrigerate your kimchi.

The Magic of the Potato

By Eric Zhuang

How can a potato make you better at math? For me, the potato gave me confidence. And let me tell you why.

Throughout middle school, I pushed myself through various math and science competitions. I wanted to represent the school in whatever way I could. I signed up for multiple math and science competitions. Soon, however, I realized that that was too much.

I remember going on a small school bus to the first of several competitions that I had signed up for, a math challenge taking place in a nearby museum. I still remember vividly the terror, the absolute certainty that I

wasn't prepared, and that I wouldn't do well from that moment. I desperately tried to think of anything I learned from the review problems I read the previous night, but nothing turned up. Every attempt only led to more desperation. Although I knew that worrying couldn't improve the situation, that wasn't enough to stop me from doing so anyway.

That changed when I was suddenly interrupted by quick talk about potatoes, accompanied by laughter. I was confused, until a friend walked down the aisle, with a smile on his face, and handed me one: "It's for good luck."

I looked at it confused. It was just a small red, slightly cratered potato, dotted with tiny white seeds. It wasn't anything

special, yet when I investigated it, I felt some of my fear vanish. Instead, a wave of courage surged through me. I felt relieved that something as trivial as a potato could be a distraction from my pointless worrying. I drew a small happy face on the potato, and I showed it to my friends. We laughed together. For the first time, I realized I wasn't competing by myself. I had the whole team with me.

I remained confident throughout the competition. We won a small prize as a result. Soon, it was time to take pictures. We all put our potatoes into the trophy, and they smiled back up at us, congratulating us. Only later did I discover that handing out a potato before competitions has been a tradition

for many years in Great Neck South. New teams were created for different competitions, but we tried to keep this tradition alive. The tiny potatoes are like small suns, magically radiating courage and warmth.

Now, whenever I hold a small potato in my hand, I think of my friends on a bus, heading towards a distant unknown, on all those mornings and the many more to come in the future.



Photo courtesy: www.livescience.com

Apollo 13's Journey to the Moon and Back

By Kyle Zheng

April 17th, 2024 marked the 54th anniversary of Apollo 13's return to the moon. Ever since then, there have been countless documentaries, stories, books, and a particularly famous movie starring Tom Hanks detailing the journey of the 3 men's perilous journey back from the moon. But not many people actually know how close these three men came to dying.

Apollo 13 was going to be the third crewed lunar landing in the Apollo program. With the Americans already beaten by the Soviets to the moon, the Apollo missions shifted to demonstrating precise lunar landing and exploring certain areas of the moon. Apollo 13 was meant to explore the Fra Mauro area of the moon, the area surrounding the Fra Mauro lunar crater in the Imbrium Basin. The crew was supposed to consist of James "Jim" Lovell as the mission commander, Fred Haise as the lunar module pilot, and Ken Mattingly as the Command Module Pilot. The three men would spend around 3 days heading to the moon, before entering lunar orbit on April 14th. Jim Lovell and Fred Haise would then spend around 33 hours on the moon, before returning to the CSM (Command and Service Module) in orbit, where they would fire their engine again to return back home.

Overall, it would be a relatively simple mission. And after months of training, the Apollo 13 crew was prepared to launch. These three men had spent almost half a year training for this mission, and they were prepared for anything. But as the launch date neared, Charles Duke, the LM pilot for the backup crew, contracted German Measles, only 7 days away from launch. Ken Mattingly was the only person who was not previously immunized from past experiences. This meant that in a last minute decision, only 4 days from launch, Ken Mattingly was switched out with Jack Swiggert as the CSM Pilot. This last minute decision was incredibly rushed and meant that Jim Lovell and Frank Borman had to work with someone they had never worked with before, but as NASA wasn't going to scrub the mission for this, the launch date stayed firm.

As launch day came, the three men, Jim Lovell, Fred Haise, and Jack Swigert, entered the Saturn V and at 2:13 PM, the launch occurred. The three astro-

nauts were squeezed against their seats as the massive rocket lumbered into orbit. 5 F-1 engines, each individually created 6,770 kilonewtons of force. The three men experienced 3-G's of force during the launch, meaning they experienced 3 times the gravity normally experienced on Earth. As the rocket climbed higher into the sky, internal vibrations of the rocket caused one of the F-1 engines to fail. The other four engines were able to compensate for this failure, and the rocket continued on its path to orbit. Once in orbit, the three men unbuckled from their seats and were free to float around the capsule. They completed a few system checks and docked with the lunar module. Apollo 13 was now on its way to the moon.

On April 14th, 1970, the third day of the mission, Apollo 13 did a television broadcast to NASA's headquarters. 9 minutes after the broadcast, the worst possible scenario occurred. The No. 2 oxygen tank exploded, crippling the spacecraft. The oxygen tank was supposed to be used on the Apollo 10 mission, but due to repairs and upgrades, was replaced. 2 weeks before Apollo 13's launch, after a slight malfunction in the fuel cell's operation which left a lot of liquid hydrogen in the tank, NASA decided to boil the rest of the liquid oxygen away by heating the tank using the internal heating system. Unbeknownst to anyone at the time, this critically damaged the tank's heating insulation. On April 14th, Jack Swigert activated the stirring fans in the oxygen tanks by the request of ground control. Meant to help settle the liquid oxygen and help make readings more accurate, this time it caused the oxygen tank to ignite. The damaged heating insulation allowed the stirring fan's wires to short circuit, igniting the pure liquid oxygen. This explosion blew off Service Module bay cover no.4, damaged oxygen tank 1, causing it to leak, and caused the spacecraft to spin uncontrollably. After the explosion, the astronauts lost connection with Houston for a short moment and their spacecraft's vital functions like power, oxygen, and water began fluctuating and dropping. This meant the CSM's power began dropping. From there, Jack Swigert said the famous line "Houston, we've had a problem here". Experiencing what NASA calls a "Main B Bus undervolt", the three astronauts saw the fuel cells failing. Soon, both buses A and B were failing.

NASA rules required all three fuel cells to be operational to enter lunar orbit. With all three fuel cells starved of oxygen and both Buses A and B failing, Apollo 13 had lost the moon.

Seeing that both oxygen tanks were losing pressure rapidly, the astronauts knew that there was no way that they could get the fuel cells working again. Finally, as if this was not enough, Jim Lovell during all of this had looked out the window and saw "a gas of some sort" venting into space. This confirmed the worst, Apollo 13's CSM was dead and damaged. Saving any remaining oxygen and power, the crew and ground control worked together to shut down the command module, saving any remaining resources for reentry. For the time being, however, the crew had to figure out how to live now that they were stuck thousands of miles away from Earth. Apollo 13 was no longer about landing on the moon, its mission now was to get the three men back home alive.

Jim Lovell, Fred Haise, and Jack Swigert were now stuck in a dead spacecraft 200,000 thousand miles away from Earth. As the entire mission was now of course, ground control had to make up an entirely new plan to get the three men back home. Firstly, both ground control and the astronauts knew that the CSM was dead, there was no way of powering it back up and still have enough power for reentry into Earth. Instead, the three men had to power up the LM to use that as a "lifeboat" of sorts. The LM was only built to support 2 men for 45 hours, not 3 men for 90 hours. Power, carbon dioxide, food, water, and oxygen all became questions and variables in the equation in whether the crew of Apollo 13 would survive. Firstly, it became clear that oxygen was not a problem. The LM and CSM had plenty of reserve oxygen, well over the needed amount for the crew to survive. Carbon dioxide was also cleared up through filters, making that not a larger problem (for now). Power and consumables all were problems however, The LM was not built to survive 90 hours in space and certainly did not have the power to do so. Food and water consumption were greatly reduced, with each astronaut only eating around 1/3 the amount of food and water they had stored aboard. Ground control was forced to reduce power usage, only using 20% of the current load. This meant all

non-essential systems had to be shut down, including navigation. Speaking navigation, that became a major issue. Apollo 13 needed to come home as soon as possible to conserve resources.

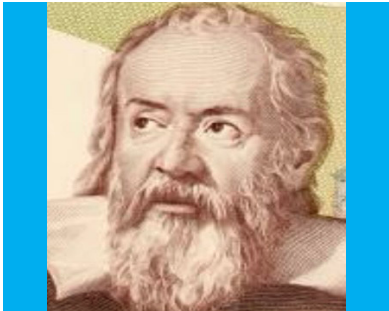
This left Apollo 13 two options, either do an about face and fire the main engine to send Apollo 13 back home immediately, or have Apollo 13 swing around the moon and fire up the LM's engines, pushing Apollo 13 on a trajectory back onto Earth. As the explosion left the CSM without enough power to fire up the main engine again and the explosion may have possibly damaged the engine itself, Ground Control decided to go with the "slingshot" plan. Booting up the LM computer again, the three astronauts performed their second midcourse correction burn which put them on a free return trajectory back to Earth. A few hours later, after swinging by the darkside of the moon, where they set the record for the farthest manned spacecraft to go from Earth, the three men had to perform a second burn to put them on the right course and to cut down on time. During this burn, Jim Lovell and the crew were forced to use their onboard sextant and the Sun for guidance. After these two burns, Apollo 13 was on a direct trajectory back to Earth. With all the major burns complete, the crew shut down almost all of the LM's systems to conserve power.

But Apollo 13 was not done yet, as they had one more major hurdle to overcome. CO2 had become a problem again. As the LM's CO2 filters were only meant to take care of 2 people's CO2 for 45 hours, the increased load of CO2 meant that Apollo 13 didn't have enough filter time for the return journey. The CSM had plenty of filters that could work, but as the CSM was shut down, they didn't work. And even though the filters were meant to be interchangeable, the CSM took square filters while the LM took round filters. Literally having to fit a square peg into a round hole, the ground control members had to make an entire new filter system. Making what both the astronauts and ground controllers called the "mailbox," this was a contraption that allowed the square filters of the CSM to be plugged into the round hole of the LM using only things that spacecraft had onboard. Using plastic covers, pipes, and most importantly, duct tape, the engineers found a way to bridge the

Famous Scientists: Italy

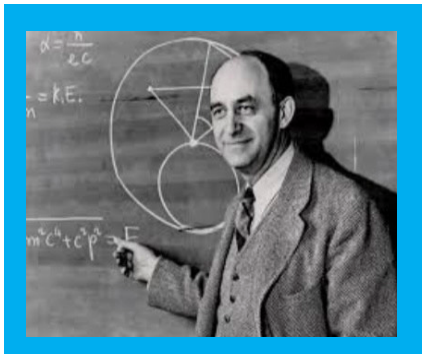
By Mark Li

1. Galileo Galilei



One of the most famous astronomers in history, Galileo made many discoveries about the moon, Jupiter’s moons, Venus, and sunspots, which helped prove the idea that the Sun was at the center of the solar system. He additionally helped with the development of the scientific method.

2. Enrico Fermi



Enrico Fermi was an Italian-American physicist who was

a Nobel prize laureate, born in 1901 in Rome. He is renowned for creating the world’s first nuclear reactor, and even has a type of physics or engineering question in his name. Fermi problems are estimation problems designed to teach dimensional analysis of large or extreme scientific calculations. An example problem could be: “How many golf balls would it take to fill a double-decker bus?”

3. Carlo Rubbia



Born in 1934 to a town called Gorizia, Carlo Rubbia is an Italian particle physicist who shared the Nobel prize in physics with Simon van der Meer in 1984. He studied in various institutions including Columbia University and Harvard University. He has been one of the main leaders in collaboration with the Gran Sasso laboratory, which aims to detect any sign of decay regarding the proton.

Know More About Neodymium

By Mark Li



There are 118 known elements in the universe, each with distinctive characteristics and chemical compositions. There’s hydrogen, helium, lithium, beryllium, boron, carbon, nitrogen, oxygen, fluorine, neon, and sodium, just to name a few. Most elements are solid in their natural state, and

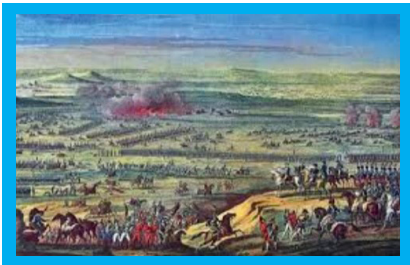
there are only two elements in the universe that are naturally liquid, namely Bromine and Mercury. There are 11 gasses out of the 118 elements, namely Hydrogen, Helium, Neon, Argon, Krypton, Xenon, Radon, Fluorine, Chlorine, nitrogen and oxygen. Neodymium is abbreviated as Nd and has an atomic number of 60. Neodymium is a rare earth metal and is almost as abundant as copper. According to The Royal a society of Chemistry, “The most important use of neodymium is in an alloy with iron and boron to make very strong permanent magnets” used in computer hard drives, mobile phones, etc.

DISPLAY PROPERTY/TREND																		
Standard State																		
1 H Hydrogen Gas	2 He Helium Gas														18 Ar Argon Gas			
3 Li Lithium Solid	4 Be Beryllium Solid														19 K Potassium Solid	20 Ca Calcium Solid		
5 B Boron Solid	6 C Carbon Solid	7 N Nitrogen Gas	8 O Oxygen Gas	9 F Fluorine Gas	10 Ne Neon Gas												35 Br Bromine Liquid	36 Kr Krypton Gas
11 Na Sodium Solid	12 Mg Magnesium Solid														37 Rb Rubidium Solid	38 Sr Strontium Solid		
13 Al Aluminum Solid	14 Si Silicon Solid	15 P Phosphorus Solid	16 S Sulfur Solid	17 Cl Chlorine Gas	18 Ar Argon Gas												53 I Iodine Solid	54 Xe Xenon Gas
19 K Potassium Solid	20 Ca Calcium Solid	21 Sc Scandium Solid	22 Ti Titanium Solid	23 V Vanadium Solid	24 Cr Chlorine Gas	25 Mn Manganese Solid	26 Fe Iron Solid	27 Co Cobalt Solid	28 Ni Nickel Solid	29 Cu Copper Solid	30 Zn Zinc Solid	31 Ga Gallium Solid	32 Ge Germanium Solid	33 As Arsenic Solid	34 Se Selenium Solid	35 Br Bromine Liquid	36 Kr Krypton Gas	
37 Rb Rubidium Solid	38 Sr Strontium Solid	39 Y Yttrium Solid	40 Zr Zirconium Solid	41 Nb Niobium Solid	42 Mo Molybdenum Solid	43 Tc Technetium Solid	44 Ru Ruthenium Solid	45 Rh Rhodium Solid	46 Pd Palladium Solid	47 Ag Silver Solid	48 Cd Cadmium Solid	49 In Indium Solid	50 Sn Tin Solid	51 Sb Antimony Solid	52 Te Tellurium Solid	53 I Iodine Solid	54 Xe Xenon Gas	
55 Cs Cesium Solid	56 Ba Barium Solid	57 La Lanthanum Solid	58 Ce Cerium Solid	59 Pr Praseodymium Solid	60 Nd Neodymium Solid	61 Pm Promethium Solid	62 Sm Samarium Solid	63 Eu Europium Solid	64 Gd Gadolinium Solid	65 Tb Terbium Solid	66 Dy Dysprosium Solid	67 Ho Holmium Solid	68 Er Erbium Solid	69 Tm Thulium Solid	70 Yb Ytterbium Solid	71 Lu Lutetium Solid		
87 Fr Francium Solid	88 Ra Radium Solid	89 Ac Actinium Solid	90 Th Thorium Solid	91 Pa Protactinium Solid	92 U Uranium Solid	93 Np Neptunium Solid	94 Pu Plutonium Solid	95 Am Americium Solid	96 Cm Curium Solid	97 Bk Berkelium Solid	98 Cf Californium Solid	99 Es Einsteinium Solid	100 Fm Fermium Solid	101 Md Mendelevium Solid	102 No Nobelium Solid	103 Lr Lawrencium Solid		

The Great Battles in History: Europe & Asia Edition

By Mark Li and Michael Sun

1. Battle Of Austerlitz (Europe)



The Battle Of Austerlitz occurred in 1805 near the town of Austerlitz. The French troops, led by military leader Napoleon Bonaparte, situated themselves hidden in the fog, abandoning the high ground that was present in front of them. Outnumbering the French by almost 2 to 1, the Russians and Austrians positioned themselves on the high ground. Napoleon had his right flank look weak, with very few troops, left open from the fog. He had reinforcements coming from the west,

ready to support the right flank. The Russians, seeing the weak right flank, fell for the trap, and went down the high ground to attack it. Napoleon’s right flank fought hard, but were overcome and had to abandon their post. As the fog lifted, Napoleon saw that the enemy had fallen right into his trap, descending from the hill to attack his right flank. This was exactly what Napoleon had planned, and the battle underscored his genius military strategy.

2. Battle of Changsha (Asia)



The Battle of Changsha was a major turning point in the Second

Sino-Japanese war, or the conflict between China and Japan during WW2. It was the first major city to successfully repel Japanese attacks during WW2. After briefly capturing Changsha, the Japanese could no longer fight effectively and rejected plans to take more territory. The Japanese then gathered many troops to attack a settlement in the west of Hunan, where they were intercepted and almost completely wiped out by the Chinese National Guard. This was a major success compared to other battles, such as the Battle of Nanjing, where the country’s capital, Nanjing, fell to Japanese invaders within 3 days. An atrocious massacre ensued, killing more than 300,000 soldiers and civilians living in the city. In the Battle of Shanghai, the world’s 6th largest city at the time fell within three months, although a brilliant defense ensued, commanded by Xie Jinyuan, of Sihang Warehouse, which successfully gathered international

attention as the Shanghai International Settlement was just across the Suzhou River. Changsha was hit by four separate battles, the first of which occurring in late 1939, the second in 1941, the third from 1941-1942, and the fourth occurring in 1944. All of these battles were commanded by General Xue Yue, given the nicknames Patton of Asia and Tiger of Changsha. In the First Battle of Changsha, the Japanese planned for a large attack against the Chinese as Germany invaded Poland in September 1939; from their perspective, a successful attack would also help boost morale after their German ally signed a nonaggression pact with their Soviet enemy. Due to the number of casualties and fatalities and an overstretched supply line, however, the Japanese withdrew across the Laodao river. At this point, the course of the war had turned in the favor of the Chinese.

Jasmine Warga Author Visit

By Elle Chiu and Grace Fang

Author Jasmine Warga visited SMS on April 16th, and talked to the school about her books and writing process. Later, members of Rebel Pen, SMS’s literary magazine, and Middleview Newspaper had the opportunity to sit down with Jasmine Warga and ask her some more questions.

Ms. Warga’s routine for writing is to do all the normal things a mom does—breakfast, drop-off, etc. Then, it’s time for her to start. She starts her writing process by lighting a candle, which is like a signal to her, telling her to start writing. Later in the afternoon, she’ll answer emails. If she’s on a deadline, she writes late into the night and early in the morning.

As expected of any writer, she experiences writer’s block. She shared she finds writing first

drafts difficult and feels unmotivated at times, but she doesn’t really see it as a block of ideas. What she does at these times is to go for a walk outside. She believes that the best ideas come when you may not be putting pressure on yourself for thinking of ideas. She shared that sometimes the best ideas come to you when you’re not thinking at all, like when you’re driving.

Her favorite part of being an author is the writing part. All she ever wants to do is create stories and brainstorm wonderful ideas. She enjoys the work and it’s also beneficial for her. Jasmine claims that she’s an introvert so her job fits for her. Overall, Jasmine Warga loves her work and encourages those who want to be an author or writer one day to try, for, in the words of Ms. Warga, “Writing is like a confidence trick, you have to believe in yourself.”



Spring Sports

By Elle Chiu, Grace Fang and Kylee Wolf

Girls Gymnastics

The Girls Gymnastics Team works on flexibility and strength, and has lots of fun. One enjoyable thing is “lines,” where you practice flexibility and technique in line with others. They also work hard, and the result is great, with stronger arms and legs, and more flexibility. To warm up, they first run in a circle and do many other exercises such as high knees and sashays. They then start practicing on other equipment such as vault, beam, and floor. The team encourages one another to do their best and in the process they make new friends.

Boys Tennis

Boys tennis is a sport to challenge yourself and have fun. They also have fun playing and competing. This year, the team is closer together. They are more social and outgoing with each other and their coaches. Overall, the team loves the sport due to being able to challenge themselves and play with their friends. The boys tennis team did a survey on their experiences playing tennis, and the average score was a 10/10.

Track and Field

This vigorous sport is rewarding, and the teammates get to work hard, spend time with their friends, and stay fit. This year, there are fewer people on

the team, but this is good! The team is closer together, and they have fun.

Girls Lacrosse

Girls Lacrosse is fun and active, and is a great sport. The girls like playing with their friends and their team, and they like the activeness of the sport. They also enjoy it because the sport builds self-confidence, and lacrosse is like a combination of multiple sports. In a super unscientific survey, we asked the team to rate their experience on a scale of 1-10. We calculated the average based on their answers at an 8/10.

Boys Lacrosse

Boys Lacrosse is a fun, competitive sport. This year, there are more 7th graders—another good thing, since next year, the team will be more experienced. The boys also like the aggressiveness of the sport. The team learns a lot, physically and mentally, and many skills, like leadership, are involved.

Girls Softball

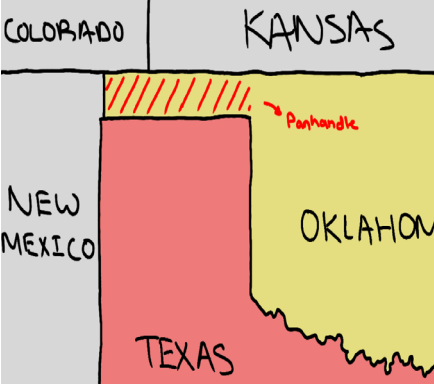
Girls Softball is an active, supportive sport. One thing the girls like is that it’s not focused on just one thing. There are a variety of things to do, like running, catching, and batting. The team also likes screaming funny team chants. The girls softball team completed the super unscientific survey and scored their experiences a 10/10.

StRaNgE Borders Explained (Part 3)

By Michael Sun

The third time’s the charm, right? Here we go again with more strange borders explained by none other than yours truly, Michael Sun. We have done iconic borders and European borders. You know what time it is now: UNITED STATES EDITION! Time to see what our own country has to offer, and oh boi - THERE IS A LOT. I chose 2 of what I think are the most interesting borders between states in the U.S. Enjoy! (All maps were drawn by me.)

1. Oklahoma’s Panhandle bordering Texas (Weird)



TEXAS! The state that makes everything huge. But they did indeed have to give up some of their land to humble little Oklahoma. Why? Well, this is re-

lated to something that happened during the time of the chattel slavery in the United States. When the South began to secede from the North, Texas was included too.

Texas, however, owned a piece of land that was above 36°30’. This presented a problem, as the Missouri Compromise of 1820 said that slavery would be illegal anywhere above this line. At the time, Texas was invested in maintaining chattel slavery. So, they gave up this piece of their territory to what we now know as Oklahoma.

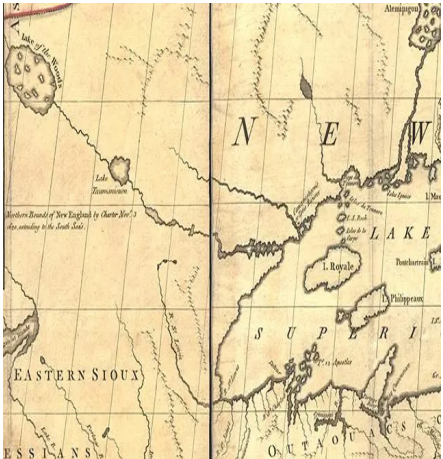
2. Minnesota’s Northwest Angle into Canada



Surprisingly, Minnesota is the state that is furthest north in the mainland United States. But, on the map, it doesn’t seem like it. So how is this sometimes overlooked state the furthest north in mainland U.S.? Well, if you zoom in to Minnesota, you can see a little jutting on the top going into Canada, taking a piece of land from the Canadian mainland. Why? This little section of land was part of the U.S. due to a series of events. Firstly, the Treaty of Paris in 1783, giving the U.S. its independence, agreed to a very specific border between the U.S. and Canada. The treaty said, according to the Minnesota Post, that “Great Britain agreed to a U.S.-Canada boundary from the Atlantic Ocean to the Mississippi River. West of Lake Superior the line was to run by (the) middle of (the) lake and stream to the northwesternmost point of Lake of the Woods. From that terminus the specified boundary was a due west line to the Mississippi River” (Lass).

However, they were relying on an inaccurate map drawn by John Mitchell (Not to say he’s bad, he was the only person who could really draw

these maps at the time). His map showed Lake of the Woods to be south of the northernmost point of the Mississippi river, but that was false. When Britain and the U.S. negotiated yet again, they agreed, in 1818, to accept this diplomatically shaped northwest angle Minnesota has today. However, even then there were no maps that could confidently show the exact shape of the Lake of the Woods. This was solved by a man named Johann Ludwig Tiarks, who confirmed the northwestern most point was the head of the Angle Inlet. In 1842, the 2 nations finally agreed to this long disputed border.



Wikipedia Commons —————

Summer Book Recommendations

By Elle Chiu and Kylee Wolf

Summer’s approaching and it’s a great time to catch up on some good reads. Here are a few recommendations.

One of my favorites is Shatter Me by Tahereh Mafi. This book is a popular BookTok. It falls under the genre of fantasy. This book contains romance, plot twists, and an exciting adventure. The story is about a 17 year old girl named Juliette whose touch is lethal. Whoever touches her skin long enough will die. Juliette has been locked up for hundreds of days by the reestablishment. This book is recommended for 8th graders since it contains violence.

Another popular BookTok series is Cruel Prince by Holly Black. The story is about a mortal girl, Jude Durante. This story is a fantasy book with a subplot of ro-

mance. When Jude was young her parents were killed and taken to Elfame, a majestic world where Fearies live.

Some of the classics that we recommend for the 6th or 7th graders are Harry Potter by JK Rowling, Percy Jackson by Rick Riorden, The Hunger Games, by Suzanne Collins, The Inheritance Games by Jennifer Lynn Barnes, and Shadow and Bone by Leigh Bardugo.

Check out some of the book recommendations listed below and we hope you’ll enjoy them just as much as we did.

Romance

- A Thousand Boys Kisses (duology)
- If He Had Been With Me (duology)
- You’ve Reached Sam

- The Deal (series, 5 books)
- Better than the Movies
- Twisted Love (series, 4 books)
- Love And Gelato (series, 3 books)

Dystopian

- The Hunger Games (series, 3 books)
- The Testing (series, 3 books)
- The Maze Runner (series, 5 books)

Fantasy

- Cruel Prince (series, 3 books)
- Harry Potter (series, 7 books)
- Shatter Me (series, 6 books)
- Shadow and Bone (series, 3 books)
- Six of Crows (duology)
- King of Scars (duology)
- Twilight (series. 4 books)

Mythology

- Percy Jackson (series, 6/7coming out this year)
- Heroes Of Olympus (series, 5 books)
- Trials of Apollo (series, 5 books)

Mystery

- The Inheritance Games (series, 4 books, there will be a 5th)
- One of Us is Lying (series, 3 books)
- A Good Girl’s Guide to Murder (series, 3 books)



Photo courtesy: www.rd.com

.....continuation of Appolo 13’s Journey to the Moon and Back from page 4

gap between the filter shapes. After building and plugging in the mailbox, to everyone’s relief, the CO2 levels began immediately dropping. Apollo 13 was on its way back home.

In the few days Apollo 13 had on its return trip from the moon, almost all of them were characterized by discomfort. The temperature of both the LM and CM had dropped to 38 degrees fahrenheit and water condensed all over the spacecraft. These freezing temperatures, in combination with how much work the crew were doing and the reduced water/food intake made sleep practically impossible for the crew. Fred Haise developed an infection. In total, all of the crew men had lost 31.25 pounds combined in space.

While the crew were struggling to survive up there, ground control was hard at work. Other astronauts, including Ken Mattingly, were working on developing entirely new procedures for restarting the CSM in space. Working in the simulators day and night, they figured out ways to get enough power to reboot the CSM, and how to boot it up in flight while fitting the time constraints Apollo 13 needed to fit. Ground controllers and engineers also told the crew to perform a few adjustment burns with the LM engine and control systems, making sure to keep the spacecraft on trajectory. More incredibly, astronauts on the ground, in space, and the controllers figured out how to separate from the Service Module and

the Lunar Module at the right times so that the crew could reenter the atmosphere with the Command Module while having the time and supplies of the Lunar Module for as long as possible.

As Apollo 13 neared Earth, the entire world watched. Ejecting the SM, the Apollo Astronauts recorded the damaged service module that was floating away. What they saw surprised the three men, The damage was even more than they had expected. An entire panel was missing, parts of the communication array damaged, and the main engine bell damaged. But what made the astronauts worry the most was how the explosion reached up to the heat shield of the Command Module. A critical part of reentry, the heat shield protected the Command Module from burning up during reentry. What they saw as the SM floated away was that the explosion damage reached all the way up to the heat shield. This meant that there was a possibility the heat shield was chipped or damaged, which would mean the spacecraft would melt during reentry.

Both mission control and the astronauts feared the worst, that they had come all the way home for one more disaster to strike. But both mission control and the astronauts knew they couldn’t do anything about it. So, the three men continued on.Using a procedure created by ground control, the Command Module was able to push itself away from the Lunar Module right before reentry without the use of the service module, which had al-

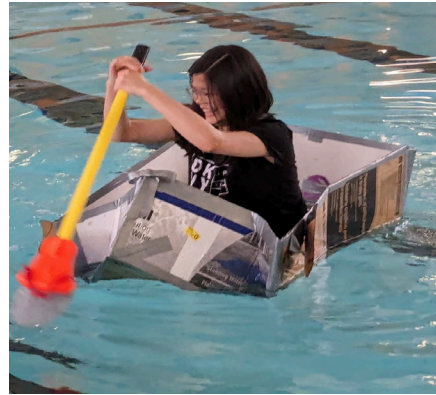
ready been ejected.With everything separated or finished already, the 3 men strapped themselves back into their seats, hoping that their heat shield wasn’t damaged by the explosion. The capsule reentered the atmosphere, the air surrounding them heating up to 5000 degrees fahrenheit. This gets so hot in fact, that it rips the electrons off an atom and forms plasma. This ionization blocks out radio signals, meaning Apollo 13 was radio dead during reentry.

Millions of people watched and listened for any signs of Apollo 13 as it continued to enter the atmosphere. Mission control knew that Apollo 13’s communication blackout was supposed to end at a specific time. If there was no response by that specific time, around 4 minutes, it would mean either the crew didn’t or couldn’t respond, or worse, had burned up in the atmosphere. Powerless to do anything, mission control huddled around their desks and screens looking for any signs. Apollo 13 continued to enter the atmosphere, the heat shield still holding up. Water that had condensed on the spacecraft from the near freezing temperatures began to fall back down. As mission control waited, the projected time communication blackout was supposed to end. The mission controllers looked at each other. Had the worst come? Did the capsule burn up? 30 seconds, 1 minute, 2 minutes passed and the crew still hadn’t responded to their calls. But then after 6 minutes of communication blackout, the crew

responded. The capsule’s parachutes shortly deployed after that, and visual confirmation of the capsule was made. Mission control, living rooms, bars, and news stations erupted in celebration. After 6 days of worry, work, and stress, Apollo 13 had returned to Earth safe, with all 3 men in good condition.

The Apollo 13 mission was one of peril, disasters, and anxiety. Throughout the 6 day mission, the three men were at constant risk of running out of food, water, power. Any wrong move or accident would have doomed the 3 men to die in the dark void of space. But even through this danger and seemingly impossible odds, the engineers at Grumman, North American Rockwell, and the other contractors of NASA worked hard to develop ways to push their machines to their limits to keep the three men alive. The men at mission control made entirely new procedures for the crew to execute. And the men themselves were able to work throughout this entire situation calmly, making sure to keep their cool even when they were at constant risk that they would never return to their families.All together, the collaboration of thousands was able to safely get the 3 men back from the moon. And Apollo 13 had sparked interest in the Apollo program, and millions of people watched Apollo 13 return to Earth. So while Apollo 13 might not have landed on the moon, it was able to accomplish much more.

World of Difference



Spot the Item



Find x:

