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A Student Publication

Fox Tales

Quarterly



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Mock Trial Teams Compete, Win Cases

Over two evenings: Tuesday, January 20th and Tuesday, February 3rd, 28 students from the Mock Trial Team competed in the Region 1 competition. These events took place in the City County Building downtown.

Although the Plaintiff teams fell short of winning their rounds on the 20th, despite being very close, the Defense teams both won their trials last night. Regardless of the results, this competition requires a tremendous amount of preparation from researching the assigned case to developing arguments, questions, witnesses knowing their testimonies, etc. The Mock Trial sponsors, Mrs. Colvin and Mrs. Klein, were so proud of the work that the students put into these events. Congratulations to the participating students!

Students who competed:

<u>January 20th:</u>

Plaintiff Team One:
Lawyers: Aislynn Senn, Nadre Digbohou and Anna Chrissis
Witnesses: Gabriel Yassin, Margaret Handron and Laila Golla
Timekeeper: Marianna Iannarelli





Back Row L-R: Laila Golla, Gabriel Yassin, Margaret Handron, and Marianna Iannarelli
Front Row L-R: Aislynn Senn, Nadre Digbohou, and Anna Chrissis

Plaintiff Team Two:
Lawyers: Sara Squelgia, Greta Erdner and Braxton Bielawski
Witnesses: Carson Hemingway, Victoria Macklin, and Maddy Bell



Left Photo L-R: Greta Erdner, Braxton Bielawski, and Sara Squelgia
Right Photo: Carson Hemingway, Victoria Macklin, and Maddy Bell

<u>February 3rd:</u>

Defense Team One:
Lawyers: Aiden Drucker, David Zakrocki and Noelle Fouron
Witnesses: Nico Zygurzynski, Collin Fassanella, and Ainsley Goode
Timekeeper: Marianna Iannarelli



Back Row L-R: Nico Zygurzynski, Ainsley Goode, Collin Fassanella, Ainsley Goode, and Marianna Iannarelli
Front Row L-R: David Zakrocki, Noelle Fouron, and Aiden Drucker

Defense Team Two:
Lawyers: Emily Shaw, Alessandra Sirio and Rebecca Smith
Witnesses: Ellie Passavant, Ava Carey, and Katie Fassanella
Timekeeper: Veronika McCarl



Left Photo L-R: Ava Carey, Ellie Passavant, and Katie Fasanella
Right Photo L-R: Rebecca Smith, Alessandra Sirio, and Emily Shaw

Students Inducted Into National Technical Honor Society

Six A.W. Beattie Career Center students from Fox Chapel were inducted into the National Technical Honor Society (NTHS) this year. Seniors Lucy Bingler (Culinary Arts), Summer Burkhart (Early Childhood Education), and Elyse Ritchie (Carpentry/Building Construction); and juniors Nolan Gwin (Heating, Ventilation, and Air Conditioning), Ethan Strain (Carpentry/Building Construction), and Elias Zeiner (Network Engineering and Cybersecurity) were inducted into the NTHS at a ceremony on March 9th, 2026, at A.W. Beattie Career Center. To be considered for the honor, students must maintain a grade point average of 3.0 or higher on a 4.0 scale, have a grade of at least 95% in their career training program, and miss no more than five days of school. Candidates also must have a clear disciplinary record and belong to a service organization or participate in an extracurricular activity. Congratulations!



The inducted students are from top left to bottom right: Lucy Bingler, Summer Burkhart, Nolan Gwin, Elyse Ritchie, Ethan Strain and Elias Zeiner.

A.W. Beattie Career Center

District Raises Over $30,000 for Polar Plunge

A group of Fox Chapel Area High School and Dorseyville Middle School students raised $30,881 in the 2026 Cool Schools Polar Plunge. For the fourth consecutive year, the total raised by Fox Chapel Area's team was the highest amount by a team in Pennsylvania. The money raised will support Fox Chapel Area School District Special Olympics Unified Sports teams and Unified Sports teams across Pennsylvania, which promote inclusion through competitive experiences. Over the past four years, the Fox Chapel Area Polar Plunge team has raised $152,888.









Donations can still be made to Fox Chapel Area's team at https://give.specialolympicspa.org/team/790101. Once again, a Fox Chapel Area family matched a portion of the donations given to Fox Chapel Area's team. The Fox Chapel Area High School and Dorseyville Middle School students participated in the Pittsburgh Cool Schools Polar Plunge on February 27, 2026, at Acrisure Stadium.

Special Olympics Pennsylvania

POLAR PLUNGE

Join SWE in the Community: Saturday STEM

By Vesta Homayoun

If you are looking for a way to get involved in STEM while earning community service hours and leadership experience, the Saturday STEM program is exactly what you're looking for. Sponsored by the Society of Women Engineers (SWE) Club, these monthly sessions give high school volunteers a chance to lead elementary students through hands-on engineering challenges.

One Saturday each month, our volunteers help kids dive into interactive programs focused on creativity and problem-solving. Our most recent event was centered on civil engineering. We built models of bridges and taught the students the science behind them. Watching the students apply the concepts they learn to their own designs is a great example of how complex ideas can be made accessible. For the kids, the program is a fun Saturday activity, and for the volunteers, it's a way to introduce engineering concepts used in highly coveted careers.



SWE Club member Maeve Beresford assists children with a STEM activity at the Cooper-Siegel Library.

We are always looking for new volunteers to help make sure these events run smoothly. Working with Saturday STEM is a rewarding way to mentor others and use your own knowledge to inspire the next generation of leaders. Additionally, the experience allows you to connect with peers who share your interests, providing a space to collaborate on projects and build friendships. Volunteering with us is a fantastic way to give back to the community while fulfilling service requirements for NHS or general graduation hours.

Enlightening young minds is just one of the many opportunities that the Society of Women Engineers offers throughout the year. If you are interested in getting involved with the club or the Saturday STEM program, please contact fcahs.swenextclub@gmail.com!

Redefining Recycling: Fox Chapel Area Student Artists Reformulate Fashion

By Giuliana Miller

At first glance you may see a piece that looks like it might be featured on the runway in Milan or Italy: a top with a pattern to catch eyes, shoes to turn heads, and a skirt that pulls in your curiosity. What if I told you that styrofoam egg cartons and crocheted plastic bags were the culprit of it all?

This year, the global stage of Junk Kouture, the world's largest sustainable fashion competition for youth, will feature the handiwork of Fox Chapel's own Raina Guzman and Claire Conti. They have stunned judges with their creation, titled "Ostara." After competing against hundreds of entries in the New York regional finals, they were named among the top 10 United States finalists. While they are not alone in this legacy, they follow in the footsteps of fellow Fox Chapel artists Lily Mclaughlin and Ayla Ojanen, whose design "Unwrapped" (made from plastic spoons and an old graduation gown) earned them a spot in the 2024 World Finals in Dublin. The sustained success has officially put Fox Chapel on the map as a powerhouse of sustainable design.



Senior Raina Guzman walks the Junk Kouture stage in Dublin, Ireland.

While the students provide the vision, art teacher Mrs. Joan Marangoni provides the mentorship that makes these dreams a reality. The journey for "Ostara" is far from over. Guzman and Conti are now preparing to represent the United States at the Junk Kouture World Final 2025. They will travel to a global destination (with past finals held in Abu Dhabi and Monaco) to compete against the best young designers from London, Paris, Milan, and Dubai. There, they will walk the runway, showing the world that Western Pennsylvania is leading the charge in the future of eco-friendly fashion.

As these students pack their bags for the world stage,
they carry more than just a dress made of recycled goods. They carry a message: beauty isn't found in the price tag of the fabric, but in the imagination of the garment's maker. At Fox Chapel, a "reformulation" of fashion has begun, and it looks better than anyone could have ever imagined.

Music Magic: Orchestra Performs Disney Tunes

By Eloise Johnson

Every spring, the Fox Chapel orchestra presents a community concert series showcasing music from Disney soundtracks. Featuring works from *Beauty and the Beast, The Little Mermaid, Moana,* and more, the orchestra performs a lively program that brings recognizable Disney melodies to life. The orchestra performed the first Disney concert at O'Hara Elementary School on Valentines Day. After the concert, crafting activities and an "instrument petting zoo" were available for the kids. Next, a smaller orchestra group performed at the Senior Citizen Luncheon. Finally, all the district's 2nd graders visited the high school to watch another Disney performance. It was a big hit and is sure to increase the elementary schoolers' interest in string instruments.





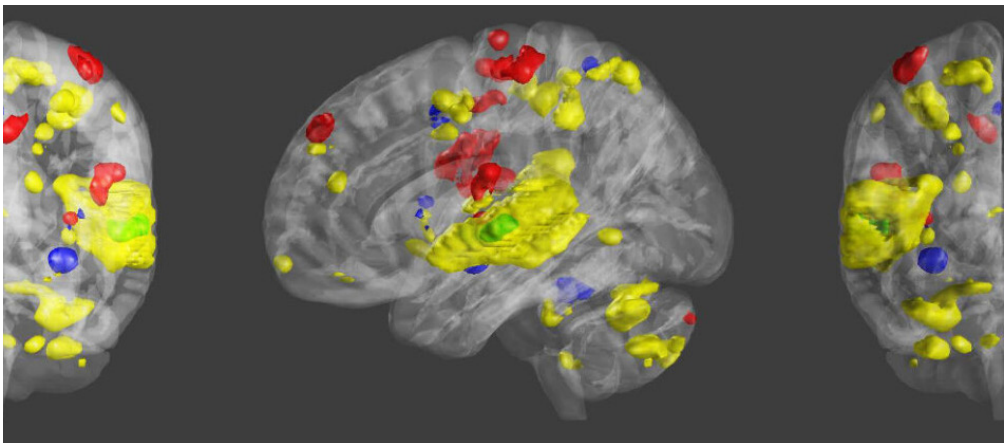




The Science of Your Playlist: Why Did You Jam Out to That Track?

By Vesta Homayoun

If you pay attention as you're walking through the hallways between classes, you will notice many students wearing Airpods. We have become a society that relies on music for entertainment, but what's actually happening inside your head as you listen?



The colored regions of the digital model of a human brain shown above represent neural activity due to listening to music.

Music is one of the few things that activates nearly every part of the human brain at the same time. When you listen to songs you actually enjoy, your brain treats it as if it's a physical reward, flooding your system with dopamine. Dopamine is that "feel-good" neurotransmitter you get from eating a great meal or seeing a notification on your phone. This rush of dopamine explains why a specific playlist can lift your spirits, since you're giving your brain a chemical boost to help you get through the day.



When listening to muscic while exercising, one may prefer a high-tempo song to induce an adrenaline rush.

Music can also act as a physical regulator for your body. If you've ever noticed your foot tapping or your heart racing during a fast song, you are observing your nervous system trying to "sync" with the rhythm. A high-tempo track can trigger an adrenaline rush, which is why athletes often use heavy bass to pump themselves up for a game. On the other hand, slow and steady melodies can lower your heart rate and decrease cortisol, the body's main stress hormone. Using a calm track is essentially a biological shortcut to relaxation, even if you are stressed about a big test or presentation.

It is easy to notice how a calm track soothes you or an upbeat energizes you, but have you ever thought about why your body naturally reacts that way? Your heart rate and breathing subconsciously mimic the beat of the music. When the tempo slows down, your nervous system follows and enters a state of rest.

This "remote control" effect on your body is also why sad songs can be surprisingly helpful during a rough week. You might think listening to a "depressing" track would make you feel worse, but it actually triggers the release of prolactin, a hormone the body uses to comfort itself. Because the music offers a sense of empathy and connection, your brain releases this soothing hormone, providing you comfort.

Of course, there's a limit to what music can do, especially when you need to focus. Many people swear they study better with lyrics blasting, but the reality is that your brain's language center cannot handle two tasks at once. If you're trying to write an essay while another source of input occupies the mind, your thoughts can get subconsciously stuck in a mental traffic jam as the brain struggles to process both song and your homework simultaneously. This conflict is why lo-fi, instrumental beats, or even specific soundwaves like 18Hz, are so effective: they give you the dopamine boost without the distraction of someone singing in your ear.

We use music and sound as tools to tune our brains to the right frequency every day, whether we're trying to survive a crowded bus ride or trying to find the right mood to get through a long afternoon.

Next time you create a Spotify, Apple Music, Amazon, etc. playlist, consider the effect to which you are curating it. Different music genres have varied "applications."

Meteors of March: What are Spring Fireballs?

By Ian Wellman

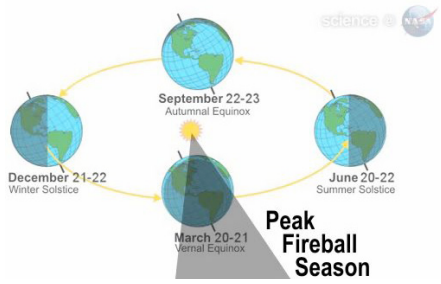
During the morning of March 17th, a meteor disintegrated over northern Ohio before the debris fell in Lake Erie. The meteor was visible for hundreds of miles due to the high altitude and brightness of the event, making it easily visible from Pittsburgh. Unfortunately, due to its entry just before 9 a.m., school had started, making it unlikely that you saw the meteor. However, if you heard a long rumble just after 9 a.m., that was likely the sound of that meteor disintegrating.



In the late morning of March 17th, a meteor could be seen streaking across the sky above Pennsylvania and Ohio.

Over the course of a week, four more meteors disintegrated over the US. On March 21st, one fell over Houston; on March 22nd, one fell over California; and a few hours later on March 23rd, one fell over Oregon; at the end of that day, another meteor fell over Ohio. All five of these meteors are classified as fireballs, meteors brighter than Venus, and bright enough to be visible during the day. Meteors similar to these meteors are not dangerous, as the heat generated from atmospheric compression causes them to break apart, often reducing the largest meteorites to the size of golf balls.

While the rapid succession of these meteors is a bit unusual, their size and brightness are fairly common for late winter and early spring. Known as spring fireball season, the period from February to early April has a significant increase in the number of large meteors, despite the lack of a meteor shower. Meteor showers form from comets shedding debris or breaking up as they approach the Sun, which results in particles, ranging from sand-sized to a couple of grams. These particles trail behind the comet, eventually filling the comet's entire orbital path. When the Earth passes through one of these regions of space, the particles burn up in Earth's atmosphere, causing a meteor shower, with the most intense showers happening when the comet has just passed Earth's orbit.



The period between Febuary and April is considered peak fireball season, so much so that the entire fireball season is described as "spring" fireball season.

Spring fireball season is not associated with any known comet, and the size of the meteors often exceeds a hundred pounds, with the meteor on March 17th weighing seven tons. Due to their size, astronomers believe that they are the fragments of asteroids or comets that broke up long ago.

Although spring fireball season is almost over, be sure to keep an eye out for more meteors, and be prepared for the spectacle again next year.

Students Chosen for PMEA Bands

PMEA Senior District 1 Band Festival (East) – Three students, seniors Jack Murray-Krezan (percussion) and Joshua Shah (flute) and sophomore Claire Lesnik (trumpet), were chosen for the PMEA Senior District 1 Band Festival (East). The band was comprised of 130 of the best student-musicians from 31 high schools from Allegheny, Fayette, and Westmoreland counties.

The PMEA Senior District 1 Band Festival (East) was held February 4-6 and was hosted by Greater Latrobe Senior High School. A concert was held February 6 at The Palace Theatre in Greensburg. The guest conductor was Dr. James Gourlay, the director of bands at Duquesne University and the music director of the River City Brass Band.



Students (from left to right) Joshua Shah, Claire Lesnik, and Jack Murray-Krezan were selected to perform with the 2026 PMEA Senior District 1 Band (East) and the PMEA Region I Band. The photo is from the PMEA Region I Band Festival.

PMEA Region I Band – Three Fox Chapel students were selected by audition to perform with the PMEA Region I Band. The students are seniors Jack Murray-Krezan (percussion) and Joshua Shah (flute) and sophomore Claire Lesnik (trumpet). The band included 146 of the best student-musicians from 63 school districts from throughout Allegheny, Beaver, Butler, Fayette, Greene, Lawrence, Mercer, Washington, and Westmoreland counties.

The PMEA Region I Band Festival was held March 19-21 and culminated with a concert March 21 at Upper St. Clair High School. The guest conductor was Dr. Shelby R. Chipman, the director of bands and professor of music at Florida A&M University.

Something Rotten! Stuns Audience

By Joe Yoshikawa



The 2026 Spring Musical was Something Rotten! The production, including the cast, crew, and pit orchestra, consisted of 110 students, pictured above.

Before seeing this year's musical, *Something Rotten!*, I was never a huge fan of musicals. They have the potential to deliver stories that lead with emotion and pull on the heart strings, but instead they ruin the gravity of situations with ridiculous music numbers. I mean, what's more unrealistic than a character randomly breaking into song and dance?

Ironically, the writers of *Something Rotten!* felt the same way, and instead created a hilarious hit that parodies the most famous musicals with witty comebacks and jokes on William Shakespeare's old English plays that the average reader can barely understand. Musicals might not be my forte, but Something Rotten! breaks the rules of tradition in the musical genre and really connected to my level.

First, let's discuss the plot. Set in 1590s London, it features brothers Nick and Nigel Bottom (played by Logan Shirk and Xing Carlough, respectively), two playwrights hoping to make it big. Nick used to be in a theater troupe with William Shakespeare (Nathan Johnson) and absolutely hates to see the rich and arrogant snob getting all the fame and attention in the playwright industry. As a result, he steals money from his wife Bea (Evangeline Sereno) and pays the fortune-teller Thomas Nostradamus (Joseph Weber) to tell him what Shakespeare's next big hit is. They are both shocked to learn about musicals, where characters often break away from the plot to sing and dance for the audience. Sold on the idea, Nick writes history's first musical called Omelette. After hearing about the "great idea," Shakespeare jumps into a disguise to go find out himself what exactly the next great theatrical invention is.



The bottom brothers, Nick and Nigel, were played by junior Logan Shirk (left) and senior Xing Carlough (right).

From the very beginning, you could feel the chemistry between the whole cast and how naturally the show came to them. The two Bottom Brother actors, Logan Shirk and Xing Carlough, mastered personalities that complemented each perfectly, with Logan's high-strung and energetic character being balanced by Xing's collected and intelligent nature. Their lines flowed smoothly, making every scene feel as though a real, authentic story was brewing. Even the kissing sequences between Bea and Nick Bottom, something often seen as taboo in high school theater, looked professional and well-practiced by these two lead roles.



Nick Bottom's wife, Bea, was portrayed by junior Evangeline Sereno (left). Fortune teller Nostradamus was portrayed by senior Joseph Weber (right).

The pit orchestra and music numbers also felt refined and truly professional. Mr. Dennis Emert's years of experience and leadership helped establish harmony between the voices on stage and instruments down in the pit, adding to musical numbers with seamless integration between both parts. Even with the constant, high-speed tempo changes, the ensemble kept both their composure and the show going, earning my respect throughout the night.

The character who really caught my attention at the shows, though, was William Shakespeare. In Something Rotten, Shakespeare stands out as the cocky rockstar of the English Renaissance, similar to how we view Michael Jackson and Elvis today. Every time his presence graced the stage, all the characters paused for a moment and sang his name in unison. The character would not be complete, though, without the masterful performance by senior Nathan Johnson. His ability to improv and enhance the humor and emotion portrayed by Shakespeare made the show such a fun watch, perfectly capturing the icon

persona who constantly fights off swarms of fans while also being the sneaky antagonist that the crowd loves to hate.

A unique aspect of this year's show was the numerous onstage theatrics performed by Shakespeare. Johnson gave credit to director Mr. Murray, who inspired Johnson to express his creativity onstage. "I did what I thought would bring out the loud personality of William Shakespeare the best," he said. "Mr. Murray gave me the rare opportunity to frequently break the fourth wall, allowing me to do things I would have never even thought possible." This freedom provided several memorable moments throughout the night, most notably in the tap dance battle between Nick Bottom and Shakespeare. "With the freedom I was given to be myself, I decided to add in a bow at the end of the dance. This allowed myself (as Shakespeare) to enjoy the moment," he said proudly. "I really wanted to involve the crowd and tell them to cheer louder, trying to embarrass (Nick Bottom)." This addition debuted on Thursday's opening night as during the senior citizen performance on Tuesday, Johnson felt the audience was not excited enough. On opening night, though, they loved the bow and his gestures to cheer louder.



Senior Nathan Johnson showcased undeinable talent with his performance as William Shakespeare. He notes taking extensive effort to woo the crowd.

I was not the only one impressed by Nate's performance as William Shakespeare. In a heartwarming moment behind the scenes, he recalled receiving a special message from Tony Award-winner Christian Borle, who played the role of Shakespeare in the Broadway hit. "I was getting ready during intermission, and Mr. Murray called me over. I was really confused, especially because everybody was staring at me, until I was handed a phone," Nate explained. "He (Christian Borle) had sent a personal message wishing me and the rest of the cast good luck with the show." As a Shady Side Academy alum and former Fox Chapel resident, Borle had heard from friends about the local rendition of the musical that skyrocketed his fame. "My jaw dropped," Nathan continued, "I'll remember that moment for the rest of my life."

The humor and satirical style of the show is really what puts the show all together, though. Something Rotten! alludes to several musicals throughout the production, whether through direct mention, color schemes, or dialogue and song lines. It pulls out everything wrong with them, from how Les Miserables has "no talking at all," or Cats's ridiculous idea of a stage full of singing and dancing animals.

One bit from the number, "A Musical," stuck with me even after the shows ended. The fortune-teller Nostradamus tells the audience mid-song that "for some unexplainable reason, the crowd goes wild every time." Even when musicals seem unreasonable and silly, one thought lingers in the back of my mind: the pressure to sing and dance under the spotlight has to be so overwhelming. Performing completely in sync with so many small details that need attention is a massive feat, and everyone on stage made it look like a breeze. The credit goes to all involved in the show, and their months of hard work was rewarded with the crowd going wild at the end of every show.

Casting Call: Fun Film Opportunities!

By Elijah Turner

Ever dreamed of being a film star? Do you want your life to be filled with action, thrill, and adventure? You're in luck! To join the summer action flick *Gem Groove* (Synopsis: The Adventurous Four discover a mystical gem called the Gem Might which has mystical powers. They participate in a worldwide tournament called the Gem Spark Prix 2025), the comedy *Lunch Rush*, or apply for the Screwbite Film Company, scan one of the QR Codes!

Apply for production of Lunch Rush

Apply for production of Gem Groove

Apply for the Screwbite Film Company





































The Enhanced Games Are Coming to Vegas

By Arman Alborzi

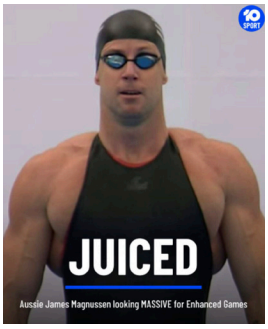
The inaugural Enhanced Games will be held May 21–24 at Resorts World Las Vegas. The event, which covers swimming, track and field, and weightlifting, is the first major athletic competition to openly permit the use of performance-enhancing drugs. Athletes will follow what the organization calls a "Performance Enhancement Protocol" under medical supervision. Around 50 athletes are expected to compete.

The Enhanced Games, a new sporting event for athletes on performancing-enhancing drugs, will be held in Las Vegas, NV from May 21-24.

The event was founded by Australian businessman Aron D'Souza, who has argued that doping in elite sports is already far more widespread than testing reveals. WADA drug testing returns positive results for roughly 1–2% of samples. But anonymous research paints a different picture. A peer-reviewed study surveying several thousand world-class athletes found that up to 57% admitted to using banned substances in the prior year! A USADA-funded survey of over 1,400 U.S. Olympians and elite competitors placed the figure between 6.5% and 9.2%. Since 1968, 442 positive doping tests have been recorded at the Olympic Games. D'Souza's argument is that if doping is this common, the existing system punishes honesty more than it prevents cheating. The Enhanced Games provides an equal playing field where each athlete is allowed to dope.

A World Record, Then a Faster One Without Drugs

At the Enhanced Games' launch event in May 2025, Greek Olympic swimmer Kristian Gkolomeev swam the 50-meter freestyle in 20.89 seconds while using PEDs and wearing a banned supersuit. The swim went under Cesar Cielo's world record of 20.91, which had stood since 2009. Gkolomeev also posted 21.03 in a standard textile suit while enhanced.



Austrailan swimmer James Magnussen, who is said to be competing in the Enhanced Games.

Ten months later, in March 2026, Australian Cameron McEvoy swam 20.88 at the China Open in Shenzhen. McEvoy was not using any banned substances and wore a regular racing suit. The time officially broke Cielo's long-standing record and was faster than Gkolomeev's enhanced supersuit swim. McEvoy is the reigning Olympic champion and two-time world champion in the 50 free.

The Enhanced Games has signed athletes across three major Olympic sports. In swimming, confirmed competitors include Olympic gold medalist James Magnussen of Australia, Olympic silver medalist Ben Proud of Great Britain, American Olympic medalist Cody Miller (bronze in the 100m breaststroke and gold in the 4x100m medley relay at the 2016 Rio Games), Emily Barclay of Great Britain, Ukraine's Andrii Govorov, Brazil's Felipe Lima, and Ireland's Shane Ryan. In track, the field includes Fred Kerley, the 2022 world champion in the 100-meter sprint, and three-time Olympian Emmanuel Matadi of Liberia. In weightlifting, the World's Strongest Man champion Hafthór Björnsson will attempt to break his own 510 kg deadlift record in an exhibition.

American swimmer Hunter Armstrong, a two-time Olympic gold medalist and former 50m backstroke world record holder, announced in March 2026 that he would compete at the Enhanced Games without taking any performance-enhancing drugs. He will remain in the international registered testing pool throughout. Armstrong told ESPN the decision came down to finances. After losing his primary sponsor following the 2024 Paris Olympics, he struggled to fund his training. "If I don't join Enhanced, I lose everything," he said. "If I do join Enhanced, I have a chance at not losing everything."

The pay difference between the Enhanced Games and traditional competitions is significant. A gold medal at the World Aquatics Championships pays $20,000. At the World Athletics Championships, gold pays $70,000. The Enhanced Games offers $250,000 for first place in each event and a $1 million bonus for any athlete who breaks a world record.

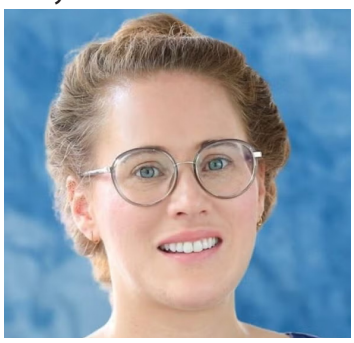
Armstrong's participation carries risk. World Aquatics Amended its bylaws in 2025, saying that individuals who "support, endorse or participate in" events like the Enhanced Games would not be eligible for World Aquatics competitions. Armstrong has said he consulted lawyers and believes competing as a clean athlete keeps him within the rules, but World Aquatics has indicated it will evaluate cases individually. Armstrong has said he still intends to pursue a spot on the 2028 U.S. Olympic team.

Reactions from the sporting world have been largely negative. World Aquatics, World Athletics, and the International Federation of Sports Medicine have all criticized the event, citing health risks and concerns about normalizing drug use in sport. At the same time, the Enhanced Games has put a spotlight on athlete compensation in Olympic sports and raised questions about the effectiveness of current anti-doping systems. The event is backed by investors including PayPal co-founder Peter Thiel and Donald Trump Jr., and the company announced plans to go public on the Nasdaq through a SPAC merger valued at $1.2 billion.

Equations for Ecosystems: How One Professor Uses Math to Save Nature

By Rishi Krishnamurthy

Life unfolds through interactions as ancient as the planet itself: species competing, adapting, collapsing, and recovering. However, understanding such patterns and protecting the ecosystems they sustain needs more than what biology alone can reveal. Dr. Sabrina Streipert, an assistant professor at the University of Pittsburgh, uses mathematics as a lens for deciphering the hidden mechanisms that govern ecological survival. Her path, from a student who found clarity in mathematics to a researcher shaping how we understand species resilience, demonstrates how mathematical biology can expand the possibilities for protecting the living world.



University of Pittsburgh assistant professor Dr. Sabrina Streipert has a well-developed interest in mathematical biology. She uses mathematical modeling to explore biological phenomena.

"When people ask when I first fell in love with mathematics, I always say it wasn't a single moment," she explained. If she had to pick one, she would say it was a teacher in high school who invited his students to attack unsolved problems through mathematical exploration. "He wanted us to experience a journey without an immediate solution, before there were algorithms to lean on," she said. "That freedom to think, to try, to not know is what hooked me."

When asked what drew her specifically to mathematical biology, she recalled, "I actually started in math-economics, aiming toward consulting." Her master's thesis deepened an immersion in pure mathematics but left her wanting more. "I loved the theory, but I felt this pull to apply mathematics in a way that made a tangible impact." That impulse drew her to questions about species survival and environmental change. "Once I started that research, I knew that's where I belonged."



Dr. Streipert use mathematical modeling to help the Austrailian government implement reasonable regulations on the fishing of barramundi.

Dr. Streipert contrasts two projects that capture both the practical impact and conceptual depth of her work. In Australia, she collaborated with the government on a concrete biological question: how can a commercially valuable species be harvested in a way that keeps a fishery profitable while ensuring long-term population survival? She built a discrete population model for barramundi with statistical data analysis to estimate population sizes and evaluate harvest strategies. Her model identified sustainable harvest policies that were written into legal regulations, a rare instance where mathematical work moved directly into policy and reshaped how an industry operates.

Dr. Streipert's second focus was on a far more fragile system: amphibian populations threatened by the chytrid fungus Batrachochytrium dendrobatidis (BD), sometimes described as causing an "amphibian apocalypse." Dr. Streipert uses eco-evolutionary models to ask which processes can generate both catastrophic declines and, in some cases, surprising recoveries. When she modeled species in isolation, a standard simplifying assumption in many ecological models, tolerant species that carried higher fungal loads appeared more vulnerable to BD than resistant ones that have limited exposure to infections. Yet when she allowed species with different defense strategies to interact, she discovered that tolerant species became more robust than resistant species, overturning the intuition built from single species models. "It was completely counterintuitive," she explained, "and it reminds us how ecological interactions can completely reshape evolutionary outcomes."

For Dr. Streipert, this kind of surprise is precisely what makes mathematical biology compelling. The models not only fit data but generate hypotheses, suggest experiments, and reveal mechanisms that are difficult to see from observations alone. She is excited by both sides of this work: the immediate, policy-level impact of projects and surprising insights that can eventually guide conservation strategies.

Dr. Streipert says she was "lucky" to have begun in an all-girls' school, where her early mathematical confidence grew without resistance. Her first real challenge emerged in college when she was reminded how quickly women can be underestimated in mathematical spaces. She recalls working through complex analysis assignments, material that came naturally to her, with a male classmate, and helping him untangle the harder problems. Yet other students approached him for explanations, assuming he must have

been the one leading the effort. "It was striking," she noted, "how invisible my contribution became." The illusion shattered after the exam, when her high score surprised those same peers. Moments like this only sharpened her resolve to navigate bias, letting mathematics speak in the spaces where others failed to see her.



Dr. Streipert attributes her success in academia to the series of strong mentors she has had throughout her education experience.

Mentorship has been the backbone of Dr. Streipert's career, from her Ph.D. supervisor to her two postdoctoral advisors. "They showed me what it meant to do real research," she said, recalling how they encouraged her to attend conferences, pursue her own ideas, and trust her mathematical instincts. Their examples shape the way she now mentors her own students and postdoc in both Pittsburgh and Canada, and a steady stream of undergraduates. She emphasizes open communication about goals, helps them identify projects that align with their long-term paths, and actively connects them with fellowships, conferences, and research opportunities. In her view, mentorship is not an accessory to mathematical training but its essential architecture, the structure that allows talent to take root and ambition to become possibility. She also directs a girls' mathematics camp in the summer, integrating outreach with her broader research and professional commitments.

When asked what advice she would offer to young women or underrepresented students considering careers in mathematics, Dr. Streipert begins with conviction: "Take every opportunity you can, and don't give up." She insists that passion is a reliable compass. "If mathematics is what excites you," she argues, "then pursuing it is not an act of bravery so much as an act of honesty about the life you want to build." She encourages students to seek out research experiences early, to talk to faculty, to ask questions, and to explore internships and summer programs that expose them to different areas of math. "Opportunities don't just appear. You have to reach for them," she said, noting how transformative it can be to attend a conference, join a research group, or simply meet peers who share your curiosity.

When Dr. Streipert looks ahead, what excites her is the open horizon of unanswered questions. "I'm eager to see where the next results lead," she said, noting how each project pushes her into new mathematical territory and deepens the tools available for advancing mathematical biology. For her, the future is defined by discovery.

Students Selected for Honors Orchestras

PMEA District 1 Senior High Orchestra – Nine students were selected to perform with the Pennsylvania Music Educators Association (PMEA) District 1 Senior High Orchestra. The orchestra was comprised of a select group of student-musicians from Allegheny, Fayette, Greene, Washington, and Westmoreland counties. The students chosen are seniors Michael Costello (bass), Charles Hahl (cello), Jack Murray-Krezan (percussion), and Joshua Shah (flute); juniors Nadre Digbohou (clarinet), Ozlem Sayrak (cello), Aislynn Senn (harp), and Leonidas Vandapel (cello); and sophomore Philip Johnson (bass).



Nine students were chosen to perform with the PMEA District 1 Senior High Orchestra. The students are, front row, left to right, Joshua Shah, Leonidas Vandapel, Philip Johnson, Michael Costello, Charles Hahl, and Ozlem Sayrak; and back row, left to right, Aislynn Senn, Nadre Digbohou, and Jack Murray-Krezan.

A total of 150 students were selected for the District 1 Senior High Orchestra Festival which was held at Mt. Lebanon High School January 22-24, 2026. A concert was held January 24. The guest conductor was Rotem Weinberg, director of orchestral activities at West Virginia University.

PMEA Western Region Orchestra – Six students were chosen by audition to perform with the 2026 PMEA Western Region Orchestra. The orchestra was comprised of best musicians from the western half of Pennsylvania. The students are Michael Costello (bass), Charles Hahl (cello), and Joshua Shah (flute); juniors Ozlem Sayrak (cello) and Aislynn Senn (harp); and sophomore Philip Johnson (bass).



Nine students were chosen to perform with the PMEA District 1 Senior High Orchestra. The students are, front row, left to right, Joshua Shah, Leonidas Vandapel, Philip Johnson, Michael Costello, Charles Hahl, and Ozlem Sayrak; and back row, left to right, Aislynn Senn, Nadre Digbohou, and Jack Murray-Krezan.

Approximately 120 students were selected from the western half of Pennsylvania for the Western Region Orchestra. The festival was held March 5-7, was hosted by North Allegheny Senior High School, and culminated with a concert at Heinz Hall in Pittsburgh. The festival was conducted by Daniel Meyer, music director of the Erie Philharmonic and artistic director of the Westmoreland Symphony and Cleveland's BlueWater Chamber Orchestra.

What Really Happens When You Are Dehydrated?

By Ario Homayoun

Have you ever felt tired, dizzy, or just unable to concentrate during class? Many students would assume it's from stress or lack of sleep, but in reality it might be something much simpler; dehydration. Nearly 75% of Americans are chronologically dehydrated. Due to the fact that the human body is about 60% water, even small fluid losses can affect energy levels, concentration, and overall health. Chances are that you may be affected by this too.



Dehydration, a state where the body loses more fluids than it takes in, is a potentially severely harmful predicament and should be treated as such.

What is Dehydration?

Dehydration is the state where your body loses more fluids than it takes in. This leads to an imbalance in the proportion of water and electrolytes, which are minerals that help control the activities of the nervous system, muscle contraction, and the balance of fluids. The human body has a composition of 60% water. This percentage is made up of the fluids inside the cells, known as intracellular fluid, and the fluids outside the cells, referred to as extracellular fluid. The right proportion of these two types of fluids is critical for the survival of all organisms.

At some point, the volume of the fluids in the cells may be reduced, and this leads to the disruption of the normal functions of the cells. This state is referred to as dehydration. The human body has to be maintained at the right conditions by the process of homeostasis. This process regulates the flow of fluids and electrolytes into and out of the cells. When the human body is dehydrated, the process of homeostasis is disrupted, and the blood volume is reduced. This leads to the thickening of the blood, and the heart finds it hard to circulate oxygen and nutrients.

What Causes Dehydration?

Dehydration occurs when there is an excessive loss of fluids compared to the intake of fluids. This can happen in many ways.

The first cause of dehydration is sweating and the way people's bodies sweat to maintain a constant body temperature. When a person's body temperature increases, their sweat glands release sweat to their bodies to reduce the internal temperature by evaporating sweat. However, this also leads to loss of water and important salts.

The second cause of dehydration can be explained by urination. Urination occurs in the kidneys and helps to remove salts and water from the bodies. Whenever dehydration begins, the body releases a hormone called antidiuretic hormone (ADH), which signals the kidneys to conserve water by producing less urine. This is why urine may vary colors due to hydration level, such as becoming darker during dehydration.

Another cause of dehydration is a person's body experiencing illness, which can lead to the body developing a fever, diarrhea, or vomiting. These conditions accelerate fluid loss and can quickly disrupt electrolyte balance. This can also occur when our bodies simply lack enough salts and water. Inadequate fluid intake is a very simple cause of dehydration in the body.

Types of Dehydration:

Dehydration can be categorized into several different types depending on how much water and electrolytes are lost from the body.

Isotonic dehydration is the loss of equal amounts of water and salt from the body. This type is the most common, and it often results from conditions such as vomiting, diarrhea, or moderate blood loss. Due to the fact that the balance of water and electrolytes remains similar, fluid is mainly lost from the extracellular space (outside the cells). This can reduce blood volume and put strain on the cardiovascular system.

In the case of hypertonic dehydration, the body loses more fluids than it loses electrolytes. This results in an increased sodium concentration in the blood, and forces the cells to lose more fluids, resulting in shrinkage of cells. This type of dehydration may be caused by not drinking enough fluids, sweating, and exposure to hot weather. It has a major effect on the human brain cells, and that is the reason for the confusion and irritability in the process.

Hypotonic dehydration is when the body loses more electrolytes than water, resulting in a decreased sodium content in the blood. This forces the cells to gain water, potentially making them swell and even burst. Hypotonic dehydration can be caused by the intake of fluids without the sufficient consumption of electrolytes, especially after sweating or heavy exercise. This can interfere with the normal function of the nerves and muscles.

Symptoms of Dehydration:

The symptoms of dehydration arise as the body tries to compensate for the loss of fluids. In the beginning, the symptoms tend to be mild, but they may also be severe. Some of the first signs of dehydration include the sensation of thirst. This is because the body tries to signal for compensation for the loss of fluids. In addition, the mouth and lips may be dry because of the lack of saliva. In the beginning, the color of the urine may be darker. When a person is dehydrated, they may feel fatigued or weak. This is because the body lacks enough fluids to properly carry out cellular processes. Headaches can occur due to reduced blood flow and oxygen delivery to the brain, and dizziness or lightheadedness may develop, especially when standing up quickly. Dehydration may also negatively affect a person's ability to think. When dehydrated, a person may find it hard to concentrate and stay alert.

In more severe instances, the body's ability to maintain blood volume and circulation can be impaired. This can cause confusion, a fast heart rate, low blood pressure, and fainting. When dehydration progresses to a more advanced state, it can cause problems with the body's organs and necessitate immediate medical care.

Why is Hydration Important:

Hydration is necessary for the proper functioning of almost all the body's important processes. Water acts as a medium for biochemical reactions, helps transport nutrients and oxygen through the bloodstream, and allows the body to regulate temperature through sweating.

Good hydration is important for proper brain functioning as well. Even mild dehydration can cause problems in attention, memory, and brain functioning in general. This is especially important among students, as it could affect learning in school.

It is also important in the lubrication of joints, supporting digestion, and the elimination of wastes via urination or sweating. Without it, all of these processes will be compromised. Among athletes, having good hydration levels is important in maintaining endurance, strength, and coordination. Dehydration among athletes could lead to decreased performance or even heat-related illnesses such as heat exhaustion or heat stroke.

Preventing Dehydration:

Dehydration can be prevented if a proper balance between fluid intake and fluid loss can be maintained. Although the body uses a system of thirst to remind a person to drink more fluids, this system does not really help to prevent dehydration because it only acts after dehydration occurs. Thus, it is best to drink water regularly during the day, especially during school hours. This can be done by carrying a water bottle with you and sipping water between classes.

Fluid intake should also increase during physical activity, sports practices, or hot and humid weather. Conditions like these cause the body to lose more water through sweat. During intense exercise, the body can lose large amounts of both water and electrolytes, so it is important to replace these losses by drinking fluids before, during, and after activity. In some cases, drinks that contain electrolytes may be helpful, particularly during long periods of exercise. It is important to not only think about drinking water, but also replacing lost electrolytes and needed minerals.

Hydration can be facilitated through diet as well. Foods rich in water content, such as watermelon, oranges, cucumbers, and strawberries, are beneficial in promoting adequate fluid intake. Observing the color of one's urine is another good way of assessing adequate fluid intake, as it should be light yellow in color if one is hydrated properly. If darker, that could indicate a need for more fluids.



Taking frequent sips of a drink, especially during physical activity, can help prevent dehydration.

In situations of illness, especially if one is experiencing vomiting, diarrhea, or fever, it is important to note that the body loses fluids at a much faster rate than usual. Under such circumstances, it is important to increase fluid intake in order to avoid dehydrating one's body further. By drinking fluids regularly and adjusting one's fluid intake according to one's activities and environment, one can effectively avoid dehydration and maintain proper body functioning.

Facts about Dehydration:

- A loss of 1 to 2 % of the total water supply will have a negative impact on the level of concentration, memory, and alertness.

- The brain is very sensitive to the loss of water, which is why dehydration takes a toll on the brain so quickly.

- Babies, children, and the elderly are more vulnerable to dehydration. In the case of babies, there will be no tears during crying, less wet diapers, and a sunken soft spot on the head.

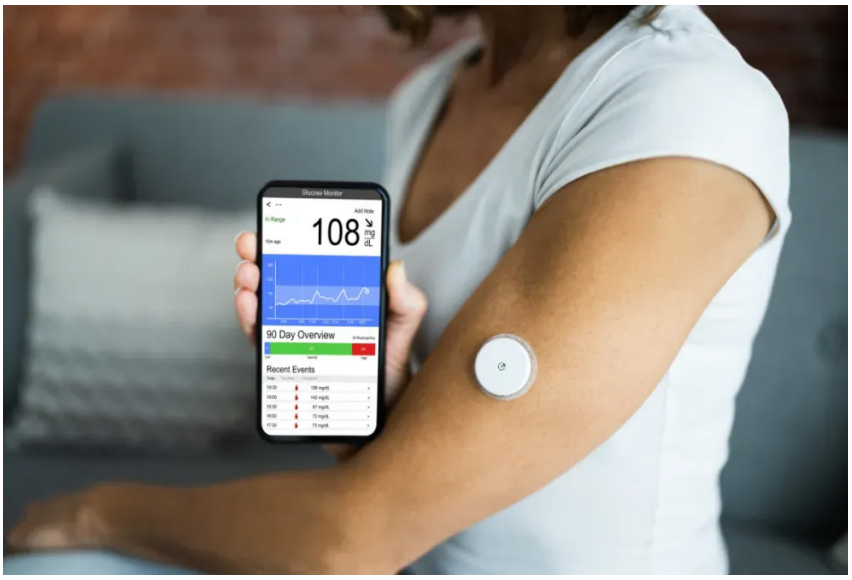
- It is important to note that the feeling of thirst is not experienced at the onset of dehydration; therefore, it means that by the time you feel very thirsty, your body may already be slightly dehydrated.

- The body may lose more than a liter of water per hour through sweating during intense physical exercises.

Diabetes — Questions Answered

By Linden Trac

Note: This article summarizes the causes, symptoms, effects, and treatments of Type 1, Type 2, and Gestational diabetes. More information regarding these types or other types of diabetes can be found through articles, websites, and books.

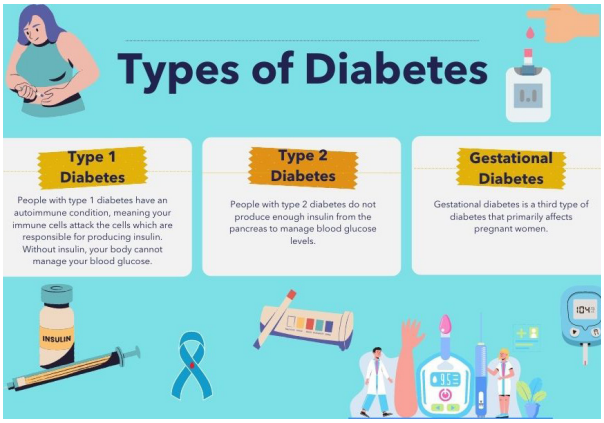


People with diabetes often wear a device called a Continuous Glucose Monitor which, using tiny sensor below the epidermis, reports glucose levels in a software application.

What is Diabetes?

Diabetes is a long-term, metabolic disease characterized by elevated levels of blood glucose (blood sugar). Oftentimes, the body does not make enough/any insulin or cannot use insulin properly, resulting in a build up of blood glucose. Over time, it can lead to damage to the heart, blood vessels, eyes, kidneys, and nerves.

People with diabetes usually have Continuous Glucose Monitors (CGMs), which use a tiny sensor under the skin to measure glucose levels in the interstitial fluid (in between cells). When blood glucose levels are low, people with diabetes usually use the 15-15 rule: eat or drink 15 grams of carbohydrates, then wait 15 minutes to check blood glucose levels again. When blood glucose levels are high, people with diabetes typically drink water, take prescribed medication, or exercise.



There are three main types of diabetes: Type 1, Type 2, and Gestational.

Where Does Diabetes Originate From?

Most forms of diabetes prevent the body from using glucose (sugar) for oxygen. Blood sugar fuels the cells in the body so they work correctly. The body digests carbohydrates, from food, and releases them into the blood as glucose. When glucose builds up in the blood, it notifies the pancreas to release a hormone called insulin. Insulin moves sugar from the blood into the body's cells for them to use as fuel. Diabetes occurs when the body cannot make enough insulin, or cannot use insulin properly. As a result, too much glucose stays in the bloodstream.

Type 1 Diabetes:

Type 1 diabetes is an autoimmune disease, meaning the immune system mistakenly attacks healthy cells. The immune system attacks and destroys the insulin-producing cells in the pancreas. Scientists believe that this reaction occurs due to genes or certain viruses that trigger the immune system.

Some symptoms of Type 1 diabetes are as follows: increased thirst and urination, feeling hungry even after eating, blurred vision, fatigue, sores that do not heal, frequent infections, and unexplained weight loss.

Type 1 diabetes occurs more commonly in children or young adults, but can still develop at any age. People diagnosed with Type 1 diabetes have the disease for the rest of their lives. They must take insulin shots daily, have an insulin pump, or have another way to supply insulin in order to stay alive.

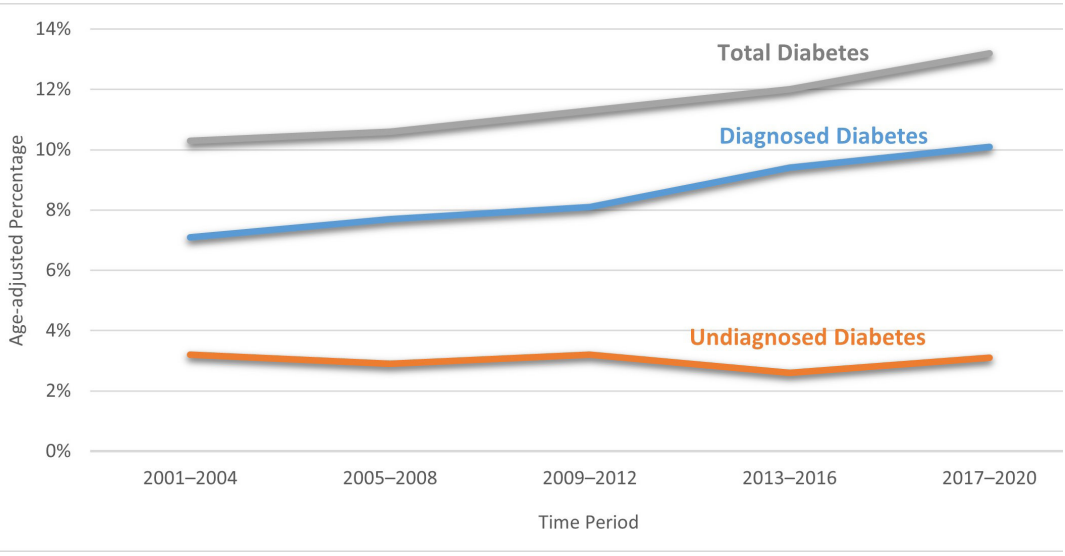
People with Type 1 diabetes tend to have a higher risk of developing a condition called diabetic ketoacidosis (DKA). Type 1 diabetes forces the body to use fat as a source of energy instead of blood glucose (sugar) due to a lack of insulin. This process produces ketones, which are chemicals produced by the liver from fat breakdown that serve as an energy source when glucose is unavailable. High levels of ketones can cause DKA. People with an infection or under stress have a higher risk of developing DKA. DKA is life threatening but with urgent medical care, recovery is possible. According to the Cleveland Clinic "With appropriate treatment, the survival rate [of DKA] is over 95%".

Type 2 Diabetes:

Type 2 diabetes often develops because of genetics, insulin resistance, lifestyle factors (like not being active

enough), or being overweight. It often starts as insulin resistance, which occurs when muscle, fat, and liver cells stop responding effectively to insulin. As blood sugar levels increase due to resistance, the pancreas tries to make more insulin. Eventually, it cannot keep up, and blood sugar remains high. Over time, the insulin-producing cells may get damaged from working too hard. Some symptoms of Type 2 diabetes are as follows: increased thirst and urination, increased hunger, feeling tired, blurred vision, numbness or tingling in the feet or hands, sores that do not heal, and unexplained weight loss.

Type 2 diabetes is the most common type of diabetes. It occurs most commonly in middle-aged and older people, but can still develop at any age. Type 2 diabetes remission, or when blood sugar levels return to normal, can be achieved through medication such as insulin, significant weight, dietary changes, and increased physical activity. While it cannot be cured, it can be managed. A healthy diet, regular physical activity, maintaining a normal body weight, and avoiding tobacco and drug use are ways to prevent the delay of developing Type 2 diabetes.



Graph showing the increase in percentage of cases of total diabetes, diagnosed diabetes, and undiagnosed diabetes.

Gestational Diabetes:

Gestational diabetes is a type of diabetes that occurs only during pregnancy. Hormones, mainly insulin, regulate blood sugar in the body. However, during pregnancy, hormone levels change, making it harder for the body to use blood glucose effectively. Oftentimes, hormones block the body's ability to use or make insulin, resulting in higher blood glucose.

Gestational diabetes is typically diagnosed in the 24th to 28th week of pregnancy. Usually, there are few symptoms other than slight increase in thirst and urination. Being overweight is often linked to gestational diabetes, though women who are overweight may already have insulin resistance when they become pregnant.

Gestational diabetes can cause problems for the mother as well as the baby. High blood glucose levels during pregnancy can cause the following problems for the baby: being born too early, weighing too much, having low blood glucose (hypoglycemia) right after birth, having breathing problems, and increasing the chance that the baby will become overweight and develop Type 2 diabetes in the future. High blood glucose can also increase the chance of miscarriage or a stillborn baby.

Women with gestational diabetes can manage their blood glucose levels by following a healthy diet or being physically active, while others may need diabetes medicine.

Facts About Diabetes:

Diabetes is one of the leading causes of death worldwide, accounting for 3.4 million deaths in 2024. In 2022, approximately 830 million people had diabetes. This number has quadrupled since 1990 when it was around 200 million people.

In 2016, approximately 5.8% of diagnosed cases among U.S. adults with diabetes were Type 1. Approximately 90.9% were Type 2 and the remaining 3.3% of cases were other types of diabetes.

Unfortunately, not everybody – especially those in low/middle income countries – has access to affordable diabetes treatments and care.

Resources to Learn More About Diabetes Research:

World Health Organization:
who.int/health-topics/diabetes
NIDDK:
https://www.niddk.nih.gov/health-information/diabetes
CDC:
https://www.cdc.gov/diabetes/about/index.html
Cleveland Clinic:
https://my.clevelandclinic.org/health/diseases/7104-diabetes
UPMC:
https://www.upmc.com/services/endocrinology/services/diabetes

BOYS TENNIS REBUILDING FOR 2026 SEASON

BY ZOEY LIU

The Fox Chapel tennis courts are alive again! After the long winter months, the 2026 boys tennis season marks a major shift. After graduating a hefty roster of experienced seniors, the Foxes are in the process of rebuilding, leaning on a young lineup to navigate a tough section in the state.



The boys tennis team is entering the 2026 season with a roster of promising players.

While the lineup has changed, the expectations from the coach remain focused on development. Coach Slezak states that the current players have the raw skills for competing, but their main obstacle this year is a lack of varsity experience. He pointed out that talent is there, but the players just need time to adjust to the pressure of match play.

Sophomore Frank Siegel has stepped into the number one singles role for the Foxes. Siegel, who expressed that earning the top spot was an honor, intends to maintain a high level of play throughout the season. His goals for the spring include an undefeated individual record and a title defense in the section doubles tournament later this year.

The team's current lineup also features a connection, as the varsity roster includes not only Frank Siegel but also his cousins, Harrison Soose and Rocco Didomenico. As the spring season continues, the Foxes are focusing on building team relationships.

GIRLS SWIM TEAM SEES HUGE SUCCESS

BY MARIN AIRIK

While all our winter sports teams had lots of success this year, one of the highest scoring teams was our girls swim team. They placed third in the state championships at Bucknell! The girls team did not begin their success only at the end, but were consistently breaking records and placing strongly as they won sections, and then finished WPIALS as the 3A runner ups. One of the most impressive aspects of the team is that out of all five WPIAL gold medals won this year, each medal was contributed to by two freshmen: Delaney O'Toole (50 freestyle, 100 backstroke, 200 medley relay, 400 freestyle relay) and Ellie Lange (200 individual medley, 200 medley relay, 400 freestyle relay). The gold medal in the 200 medley relay was also won by Cameryn Brindza and Josie Stanczak. Nico Ressler and Charlotte Rusche won the additional gold medal in the 400 freestyle relay.



Freshman Ellie Lange poses with one of her many medals from this season.

Winning in a field full of such talented swimmers at such a young age takes confidence and discipline, a testament to how talented and strong the freshmen on the girls team are both mentally and physically. While the freshmen are performing very impressively, a team can only thrive with cooperation and contributions from multiple people, which is very clearly a strong part of the Fox Chapel girls swim team as many other girls are helping score points and perform well under pressure. Some of the older girls are also showcasing their talent by placing in the top three at WPIALS, as Charlotte Rusche swam to second place in the 200 free, and the relay team of Josie Stanczak, Tuuli Airik, Norah Kovach, and Charlotte Rusche swam to second place in the 200 freestyle relay. Of course, the success of the girls only continued afterward.

Out of the 11 swimming events that occur at the state meet, our girls team competed in 10 of these events with some events having more than one girl from the team. All of the girls who competed with their specific events are:

200 Medley Relay
- 16th Brindza, Cameryn (11th); Lange, Ellie (9th); Huang, Sarah (11th); Airik, Tuuli (10th)

200 Freestyle
- 13th Rusche, Charlotte (11th)

- 20th Ressler, Nico (10th)
- 26th Shelkey-Bray, Maren (10th)

200 Individual Medley
- 1st Lange, Ellie (9th)
- 21st Brindza, Cameryn (11th)

50 Freestyle
- 2nd O'Toole, Delaney (9th)

100 Butterfly
- 17th Stanczak, Josie (11th)

200 Freestyle Relay
- 3rd Stanczak, Josie (11th); Airik, Tuuli (10th); Rusche, Charlotte (11th); O'Toole, Delaney (9th)

100 Freestyle
- 14th Stanczak, Josie (11th)
- 21st Rusche, Charlotte (11th)

500 Freestyle
- 2nd Lange, Ellie (9 th)
- 20th Shelkey-Bray, Maren (10th)
- 24th Ressler, Nico (10th)

100 Backstroke
- 1st O'Toole, Delaney (9th)



Delaney O'Toole, also a freshman swimmer, won first place for the 100 backstroke in the PIAA state championship at Bucknell University.

- 16th Brindza, Cameryn (11th)

400 Freestyle Relay
- 2nd Stanczak, Josie (11th); Lange, Ellie (9th); Rusche, Charlotte (11th); O'Toole, Delaney(9th)

Overall, the girls swim team had a very successful and impressive season, qualifying 11 girls and being able to place third in the entire state! Not only did the girls place well at the PIAA meet, but a series of team records was broken to boot. Delaney O'Toole broke the record in the 50 freestyle, the relay team of Josie Stanczak, Tuuli Airik, Charlotte Rusche, and Delaney O'Toole broke the record in the 200 freestyle relay, Ellie Lange broke the record in the 500 freestyle, and the relay team of Josie Stanczak, Ellie Lange, Charlotte Rusche, and Delaney O'Toole broke the record in the 400 freestyle relay. Congratulations to the girls swim team!









Senior Citizens Luncheon









Project Hail Mary, The Movie We All Needed

By Giselle Silva

There are many things that this world needs to thrive, and have inspired many throughout the years. Many of these things fall under the category of art. Art is one of the most important things in our century; one of the most important things that keep us together. Under this category also falls one of important means of storytelling in the history of mankind: cinema. Many may disagree with me, but in my opinion, cinema is one of the most important forms of storytelling in our society. Without cinema, people in the United States during the Great Depression would have no means to escape the awful reality in which they lived. Empathy would be a struggle to many without the immersiveness of film to allow us to live through the eyes of minorities. Films like Saving Private Ryan Steven Spielberg 1998) and Casablanca (Michael Curtiz 1942), films that explore traumas and horrors of WW2, ideas that the media refused to reference, would not exist (or more likely would exist in the form of a book). I know for a fact that if those stories were books, less people would be inclined to interact with them. Why? Because reading is boring to most people. Cinema ties that gap between the viewer and a story. It creates a bond that allows us to be more immersed in the story we are about to see. So, of course, it should be a disappointment to almost everyone to see how many movie studios are "reheating their own nachos" when it comes to making new movies.



Not long after its March 20th release, Project Hail Mary became an instant box office hit.

Disney has announced four original films to come out within the next two years (films that have no connections to any previously existing media), which is drastically low compared to the other 28 movies that have been announced by Disney. These films include Hoppers (which has already been released), Hexed, Gatto, and Once on This Island. The other 28 movies are all either remakes or sequels. Nobody seems to be surprised by this notion. Most movies that are coming out these days aren't originals, only safety options that studios know work. We all complain about another low-life CGI remake, but what family resists seeing their favorite Disney movie on screens again, even if in another setting? What child resists a sequel to their favorite movie, even if it has no purpose other than to make money? Studios think they know what works.

So, it was most likely a shock when a film adaptation for an original novel became Amazon's highest grossing film debut, at $140.9 million in just one week. *Project Hail Mary* is a science-fiction movie that was released on March 20th, 2026, but many will know it by its book adaptation, which was published on May 4th, 2021. Without spoiling as much as possible, the story follows a lone astronaut named Ryland Grace, who finds himself stranded on a spaceship, named the Hail Mary. The Hail Mary was sent to a star named Tau Ceti; a star that is not infected by the bacteria that is spreading across almost every star in the known galaxy, Astrophage. With both of his crewmates dead, and a foggy memory that is slowly coming back to him, Grace must complete his mission; to save the Sun. When he meets an alien, however, he realizes that he is not the only civilization that needs saving, and chooses to band together with the alien, whom he chooses to call "Rocky" to save both of their civilizations (many might consider Rocky as a spoiler, but according to Ryan Gossling, the actor who plays Ryland, not mentioning Rocky "Is like pretending E.T. is about a kid whose parents got divorced. You know, it's about an alien. We gotta talk about it.").

This story may seem simple to a movie goer, but the base story is way more complex than it looks. I read *Project Hail Mary* in 2025, and it almost took me two months. That is because Andy Weir, the creator of the story, is very keen on making scientifically accurate stories. His previous book that created a box office success, *The Martian* (Ridley Scott 2015), was very strictly bound to rules and laws of science. This is amazing for many majors in science, and those who are aware of terms used in his books, but many would find trouble reading his stories. I know that I had to rate *Project Hail Mary* 4.5/5 instead of my original 5/5 because of how difficult my reading experience was. This detail, however, does not mean that *Project Hail Mary* is not a beautiful story. This story captures themes of friendship, humanity, sacrifice, bravery, and so much more in such a beautiful way. I remember almost crying twice while reading. I could go on about the book itself, but that doesn't relate

to what I feel needs to be known.

It is absolutely amazing that such a complicated story could be turned into a box office hit in only one week, because stories like these aren't seen enough by the average person. Many people I know gave up 50 pages into this book because it was too complicated, but the movie was able to simplify so many complex concepts (not too much to where the story was impacted). Many box office hits these days are created through familiarity. According to Box Office Mojo, *Ne Zha 2* and *Zootopia 2* were the highest grossing movies of the Worldwide Box Office last year, with *Ne Zha 2* making $2.2 billion and *Zootopia 2* making $1.86 billion respectively. These two movies both stemmed from pre-existing franchises that were known and loved by many. In fact, if you take a look at the top five, all of those movies come from previous franchises (*Avatar; Fire and Ash, Lilo and Stitch*, and *A Minecraft Movie*). All of these movies connect to something, but *Project Hail Mary* doesn't really have a connection to many. Sure, it is based on a generally popular novel in the book community, but many people don't read these days. According to YouGov, 40% of Americans admitted to not reading any books in 2025. This may seem small, but this accounts for 136 million people in the United States. And although *Project Hail Mary* is a generally popular book, it is mainly popular among those who majored in some form of science. Many people online, including @dylanjosephwrites, an influencer on Instagram, admitted to dropping this book because of how complex the science seemed. Although all of this is true, *Project Hail Mary* made $80.5 million in the United States just this week. A lot of that came from the readers and scientists, but not all of an audience is made up by just that. People from all different walks of life came to see this movie.



Project Hail Mary's directing duo, Christopher Miller (left) and Phil Lord (right) are behind many well-revered films of the past couple decades.

One of my friends went to see an early screening of this movie, a person who did not read this book, nor knew anything about it to begin with. And, to be clear, he also probably had no clue about the complexities of microbiology or astrobiology (he might prove me wrong though, who knows). What is even crazier about this is that he came out of the movie theater loving this masterpiece. This is what shocks me about *Project Hail Mary*: the fact that this movie captured so many people with no connections to the story in any way at all, and brought in tons of audience members with different backgrounds. This isn't a movie just for the OG's and science majors, it is a movie for everyone.

In an era of cash-grabs and thoughtless attention-seeking movies, this is the movie we needed in 2026. Why? Because it proves to everyone, even top studios like Disney, that not just familiarity is needed to make a successful movie. Directors Phil Lord and Chris Miller know this well.

Phil Lord and Chris Miller are known for tons of successful films, but one of arguably the most successful ones is *Spider-Man: Into the Spiderverse* (2018). This movie, of course, falls into a subcategory of familiarity that I mentioned earlier, and I will admit that; however, that is not what made this movie so successful. This movie was made successful through impactful storytelling, meaningful dialogue, and gorgeous cinematography that is famous for changing animation forever. Chris Miller and Phil Lord did not solely rely on Spiderman as a franchise to make this movie a success; they knew that so much more went into that. Even with the sequel, *Spider-Man; Across the Spiderverse* (2025), all of this can be seen and more. To many, this movie is actually better than the original, with it receiving a 95% audience score over the original 94% (this may seem small, but topping greatness is extremely difficult!!). What goes into a good movie can be seen by almost every audience member; heart. Heart can be seen throughout the works of Lord and Miller. Heart, however, is the one thing that is lacking in today's successes. This is because it has become so blatantly obvious to audiences that movies aren't seen as storytelling to big studios anymore; they are seen as a quick buck. With movies such as *Spider-Man: Into the Spiderverse* (2018), *The Lego Movie* (2014), *The LEGO Batman Movie* (2017), *Cloudy With a Chance of Meatballs* (2009), *Mitchells vs. the Machines* (2021), *Project Hail Mary* (2026), and several others, you can see heart in every story these two tell.

Heart can be seen all throughout *Project Hail Mary's* film adaptation, in many different ways. For example, Miller and Lord took a very different approach when it came to the cinematography of this movie. This film used ZERO green-screens. Miller reported to Comicbook.com, "What's fun about the movie is that there is no green screen whatsoever. Not a single green or blue screen was used." This means that Miller and Lord used practical sets. This means that every single set in the movie was built in real life. The interior of the spaceship, the exterior of it, the classrooms, the base-ship, everything, was real. This is very complicated for film-makers to reproduce, mainly because it costs WAY too much money (even with a $250 million budget, like the one *Project Hail Mary* had, it would still be risky). With the use of green and blue screens, backgrounds are way easier to edit in. Practical sets aren't common in bigger box-office movies now, because it is easier to create a background in post.

Miller and Lord, however, chose to use a tougher approach to connect to the audience more clearly. The fact that Ryan Gosling could actually interact with everything in his ship, instead of having to assume where everything would be in post, is what makes it feel like it was "shot in the moment." As well as this, Rocky was an actual part of the set as well. He had two different forms, as a puppet and an animatronic. Having Rocky as a real interactable part of the set allowed Gosling to not only be able to interact with his alien buddy, but also play with the puppeteers. Rocky's voice actor, James Ortiz, was actually casted because of Gosling. He wasn't even considered as an actor; he was one of Rocky's puppeteers. Ortiz would originally just shout out the lines of Rocky so Gosling could say his lines, but when picking a voice for Rocky, Gosling chose him. This was because not only did he know so much about the character, but he also portrayed Rocky in such a believable way that it was almost like he was the voice actor to begin with. If there was no practical set for this movie, Ortiz would have never become the actor for Rocky, because Rocky would have entirely been CGI. Now, of course, CGI was partly used for this movie. Both Lord and Miller make a huge point of shouting-out their CGI artists for their work. This was, however, a very small amount, only being used for scenes in space and to cut out Rocky's puppeteers. For the space scenes, Gosling would simply be placed in front of a background that matched his atmosphere (so if he was just in a vast background; black). Then, CGI artists would add stars and lighting later on. All of this attention to detail proves just how much thought and heart went into even the simplest parts of *Project Hail Mary*. There can be no doubt that this movie has heart.

> *"Human beings have a remarkable ability to accept the abnormal and make it normal."*
> *-Andy Weir*

Although this movie does have cut out parts from the book (as do all book-movie adaptations), most of it is actually very accurate. One scene that many fans felt was important, a scene relating to Antarctica, had to be cut out against the wishes of Lord, who felt it was a very impactful part of the Earth flashbacks. It sadly had to be cut out because the writers were making a point to make Grace and Rocky's friendship the main vocal point of the story, and the scene in Antarctica had nothing to do with that. Even though this was cut out, 9/10 scenes that Lord felt were incredibly impactful in *Project Hail Mary* made it into the film, which is almost impossible to do for many directors, considering the fact that these films have limited screentime. Of course, there are things that weren't added, but if this were by any other director, there would be more details that were not added rather than ones that were. One more thing Lord and Miller did to connect the audience to the film was simplifying the scientific concepts used in this movie. They didn't erase many details, but made a fact to make the explanations simpler to understand. Many details in the book were not explained in the movie (how astrophage uses neutrino/anti-neutrino pairs to store energy in order to reproduce, how Grace was able to breed certain bacterias to create naturally selected traits, how centrifugal gravity works, how Grace could even travel at 92% of light-speed, Rocky's species functionality, how Rocky could make Xenonite, a solid form of a NOBLE-GAS). All of these details definitely put many readers to sLordp, so Lord and Miller most likely removed them in order to simplify the movie. Both Lord and Miller understand their audience, and know just how to simplify a complex scientific story just enough, so it is still accurate, yet entertaining to the masses.

Of course, the story itself has the most heart in this movie. The friendship of Grace and Rocky is beautifully written by Andy Weir, and allows so much depth to be explored for both the characters. I can't talk about how much this friendship truly impacted me without spoiling the movie, so out of respect for those who have not watched it, I won't go into details about them. This friendship does, however, carry three important messages that I think our modern society really needs. 1. Friendship comes from the strangest places, but that doesn't make them any less valuable. 2. Even the most different individuals can become the bestest of friends. 3. Friendship relies on sacrifice.

These may seem simple enough, but a lot of people don't treat others with empathy and kindness. They know of empathy, but choose not to have it for those they see as different. The world today has come to great efforts to try and unite people of different backgrounds, but that does not stop the hate that people still give every single day. No matter what, hate will still exist, but I believe that spreading the messages of kindness around our community will at least help one single person, and that single person is always worth it. Even if you don't go see this beautiful movie, it would be amazing if you could go out of your way to show empathy to people that may be completely different from you. Who knows what may happen? You may become that person's Rocky.

This article is a push to our community to go see a movie with heart, and not a sloppily made sequel or live-action remake. In a world where most stories are retold at least a dozen times in tons of different ways, why not see something new? Why support a cash-grab by some big studio when you could see a passion project by directors who actively want to create a new experience? *Project Hail Mary* is so much more than a science fiction movie. It has friendship, self-sacrifice, humor, and most of all, heart. A movie with actual heart is what we need today. *Project Hail Mary* is the movie that we actually needed to begin 2026.

The ABS System: Baseball's Newest Modification

By Eli Olifson

Baseball has been around for almost 180 years, significantly longer than most other major sports, both in the United States and worldwide. Despite the game's old age, baseball has remained largely unchanged in its nearly 200-year history. Aside from the most basic changes that happened within 50 years of the sport's birth (moving the pitching mound back, banning the spitball, and lowering the pitching mound), baseball has been nearly identical to its first form. However, as the world develops, baseball is being called to do the same. A few years ago, MLB executives realized that the incredibly slow pace of the games could be driving away a younger market. In an attempt to revitalize the sport, the MLB introduced the pitch clock, a 15 or 18-second timer (depending on whether runners are on base) that counts down, and pitchers must throw the ball by the time it hits zero, or it is an automatic ball. The change brought viewership of 18-34 year olds up 10.5%, and proved to the MLB that by making changes as small as shaving 20 minutes off of games, they can boost the sport's popularity. That notion is why on Opening Day 2026, Thursday, March 2nd, the MLB introduced the ABS, a major mark on the little-changed game considered to be America's Pastime.



The MLB has introduced the Automated Ball-Strike system for the 2026 season.

So what, exactly, is the ABS system? The Automated Ball-Strike (ABS) Challenge System uses modern technology to let batters, pitchers, and catchers challenge ball and strike calls made by the home plate umpire. Here's how the system works: If a batter, pitcher, or catcher disagrees with a call, they must immediately tap their helmet to signal a challenge. A video replay, powered by 12 Hawk-Eye cameras that track pitch trajectory in real-time, quickly shows whether the pitch was inside or outside the strike zone, which is defined as a 2D box 17 inches wide and matched to the batter's height. Each team is allowed up to two unsuccessful challenges per game. If a challenge is successful, it is not deducted from their total. This process ensures that calls are checked quickly and allows players, rather than just managers, to immediately contest pitches. Previously, since 2014, managers could challenge only select plays in the field, like outs or safes, through video review—never balls and strikes. Now, ABS brings challenges directly to the plate, using precise technology for instant review and ruling. The MLB is clearly leveraging technology to improve fairness and accuracy in the sport.

A non-baseball fan may wonder why this is significant, as it seems to change only a single pitch in a game of hundreds. The answer centers on accountability. Umpires have long avoided repercussions for errors that can dramatically alter game outcomes. Even in a long season, every win matters, and teams sometimes miss the playoffs by one or half a game. The ABS system holds umpires responsible for any bad calls at the plate and guides them toward a more accurate understanding of the strike zone. Notorious umpires, like Angel Hernandez, have faced criticism for poor officiating with no real consequences—in fact, he has umpired in high-stakes playoff games despite his record. The ABS system's significance is therefore in ensuring games are not decided on bad calls, such as the controversial strike three that ended the WBC semifinal between the Dominican Republic and the United States. It is clear the league needs change, but debate remains over the introduction of the ABS system.

There is a notable percentage of baseball fans who are critical of the ABS system. There are two main arguments that this group of people makes: 1) The ABS system could potentially take umpires' jobs, and 2) Bad calls are supposed to be a part of the game. The first concern is not too far-fetched in the long term, although it is unlikely that this change would happen anytime soon. However, if technology keeps improving and someday we have enough cameras and data-trackers in every stadium, there is a very real possibility that the MLB makes the shift away from human umpires and towards "robo-umps". These new automatic umpires would make every call perfectly, which sounds good at first, but bad calls have been happening since the game was invented. Watching managers come out and light up umpires is an exciting scene that happens numerous times a year. Not to mention that robotic umpires would take the jobs of people who rely on it as a source of income. If we are replacing human umpires with robots for making an occasional bad call, why don't we just replace human players with robots for making a bad play?

The ABS system is a good new addition to the MLB that takes advantage of modern technology and uses it to improve the play of the game, but it does not come without plenty of controversy, which begs the question: "Where do we draw the line with technology in sports?"

The WBC and International Baseball

By Grant Fenton

The 2026 edition of the World Baseball Classic (WBC), the premier international baseball tournament, was a rollercoaster of emotions. At the conclusion of pool play, eight teams were set to advance to the knockout stage: Japan, South Korea, the Dominican Republic, Venezuela, Canada, Puerto Rico, Italy, and USA. The first quarterfinal matchup featured top-seeded Japan, led by Shohei Ohtani, widely considered the world's best player, and Venezuela. Japan, three time winner of the WBC, was favored going into the game. Venezuela, led by MLB players like Ronald Acuna Jr. and Luis Arraez, was overlooked due to finishing second in their pool, with one loss to the undefeated Dominican Republic. In a shocking upset, Venezuela beat Japan 8-5, to advance to the semifinals. Next up was Puerto Rico squaring off against Italy. Puerto Rico was missing multiple impact MLB players, such as Francisco Lindor, from their roster due to injury, insurance, or suspension reasons. Despite this, they were still favored against undefeated Italy, who had previously upset the United States in pool play. The Italian team was composed of almost entirely Italian Americans, many of whom lacked MLB experience. Led by a three-homer performance from Kansas City Royals star Vinnie Pasquatino, Italy improved to 5-0 as they beat Puerto Rico 8-6, advancing to the semifinals.



The 2026 World Baseball Classic (WBC) was held between March 4th through 17th. Ultimately, Venezuela won the championship with a 3-2 win against Team USA in the final game.

The United States won a tight 5-3 contest against archrival Canada, and the Dominican Republic made quick work of South Korea. In the semifinals, the United States played the Dominican Republic and Italy took on Venezuela. The Dominican Republic's 2026 roster, headlined by MLB stars Juan Soto, Fernando Tatis Jr, Vladimir Guerrero Jr, Ketel Marte, and Manny Machado, stormed through pool play and their first playoff matchup. In spite of a stout opponent, Team USA was still a slight favorite heading into the game, and thanks to solo home runs by Gunnar Henderson and Roman Anthony, the US squeaked out a 2-1 victory. The win did not come without controversy, however. A strike called on a ball seemingly well below the zone on the game's final pitch ended the Dominican Republic's hopes. The other semifinal was much quieter, with Italy's luck running out in a 4-2 loss to Venezuela. With the win, the championship matchup was set: Team USA vs Venezuela at the Marlins' ballpark in Miami. Miami has the largest population of Venezuelans of any American city, which worked to Venezuela's advantage. The crowd was loud and decidedly pro-Venezuelan.



The players from Venezuela celebrate winning their first ever World Baseball Classic title at LoanDepot Park in Miami, FL on March 17th.

Another advantage possibly at work for Venezuela had little to do with baseball: after the US capture of Venezuelan president Nicolas Maduro in January, many players cited uniting their nation under

the common cause of international baseball as their primary motivation for playing in the WBC. The US was also hampered with the inability to use some of its top pitchers due to restrictions from their MLB organizations, while Venezuela's best pitchers were available for the final. Even in spite of these advantages, Team USA was still the favorite. With its best pitchers off limits, New York Mets top prospect Nolan McClean made the start for the Team USA and had a solid outing, only giving up two early runs. Team USA's bats were quiet until Bryce Harper tied the game at two a piece with a two run home run in the eighth. Venezuela retook the lead 3-2 in the top of the ninth, and then retired all three American batters to clinch the nation's first WBC championship. Ronald Acuna Jr and Salvador Perez, both World Series champions, expressed that they valued the win more than many of their MLB accomplishments, showing a passion and commitment to the WBC that Team USA seemed to lack.



Despite statistics suggesting a possible decline in baseball's popularity with U.S. sports fans, the sport maintains a massive fanbase,

American fans have been left disappointed by their team's showing at the 2026 classic. It's not just this year, either. In the six iterations since the tournament's inception in 2006, USA baseball has struggled to convince star Americans to participate and take the event seriously. MLB teams don't want their pitchers straining their arms, and many players have seen the WBC as an exhibition not worth missing spring training for. MLB created the WBC to inspire competition between countries and help build up the level of baseball across the world. To some fans, it has been too successful at that. America has taken the title home once out of six times, which is an unsatisfying result when considering that the MLB, the world's best collection of baseball talent, has a player population that is 73% American. The losses endured by the US in this international competition have begged the question: Is baseball still America's pastime? And even if it is, has the rest of the world caught up to the once-dominant American baseball machine?

The general trend of baseball's overall popularity in America has been downward in the 21st century. All metrics, from youth participation to game attendance, support this. But in the 2023 WBC, 62 million Japanese fans watched Japan take on team USA in the finals. A staggering 42.4% of households in the country watched. In America, on the other hand, only 5.2 million people watched the same game, and it was still far and away the most watched WBC game ever in the US. In Puerto Rico, 62% of households tuned in for their game against the Dominican Republic. These kinds of numbers are unfathomable by American standards. There is a caveat, however. While the WBC doesn't garner the same amount of interest in the US as it does elsewhere, regular season MLB games still draw higher attendance and television viewership than the regular season games of any other professional baseball league in the world. Additionally, the trend of MLB and WBC viewership and attendance in America has been upwards in the last five or so years. Multiple of Team USA's 2026 WBC games drew record viewership. Also, the massive gap in WBC viewership between the US and other countries can likely be explained by a greater familiarity with international competition and cultural differences when it comes to national pride. Latin American fans are used to showing up for events like the World Cup. In many Asian countries, representing the country is a great honor, and so players play as hard as they can. Americans, on the other hand, are much more invested in their pro teams, relegating international competition more as a sideshow.

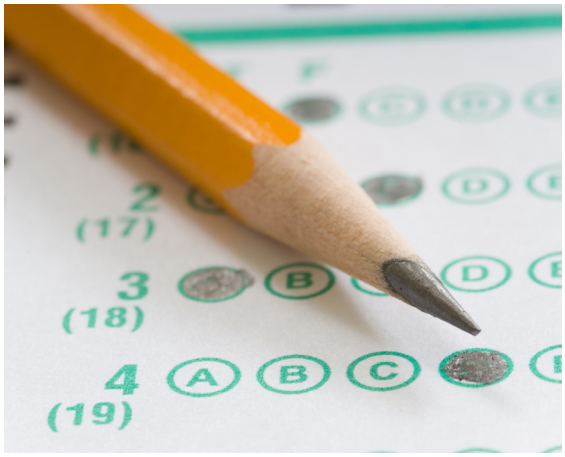
Baseball is slated to return as an Olympic sport for the 2028 Summer Olympics in Los Angeles, CA.

So, has America lost its baseball touch? The short answer is no. However, a combination of rising talent in other countries, national pride, and a love for international competitions has created the perfect storm for the WBC to be an ultra competitive tournament, regardless of how evenly the talent is distributed across the globe. All in all, the WBC has fostered competition in a sport that previously had lopsided results in international competitions, and this is absolutely healthy for the sport. International baseball is in the best place it has ever been, and the possibilities for further growth are seemingly endless as baseball's return to the Olympics approaches in the 2028 Los Angeles Games.

What is the Best Way to Measure Learning?

By Eliana Wellman

Imagine you are sitting in a creaking chair. You fidget uncomfortably with your No. 2 pencil. You feel your heart pounding in your head in sync with your headache. Your eyes dart rapidly, exhausted from the all-nighter you pulled. Fluorescent lights flicker. Scratch paper is tossed onto your desk. It is time to take the SAT. Standardized tests allow for educators to look at students of different backgrounds to show how much a student understands. Not all schools get the same amount of funding, so exams can show which students are learning all of the material and which schools need more work. They can encourage students to work harder in their classes, and they can give teachers information about what material they need to prioritize. However, educators do not always use standardized tests for the benefit of the students.



Despite their popularity, standardized tests may not be the best method of determining learning.

While these tests can be a good source of data, the improper use and excessive reliance on standardized tests can lead to serious consequences such as inaccurate data, grade inflation, and mental health issues. Staying up late and pulling all-nighters to study for an exam has become a norm in high schools and colleges. These exams put pressure on students to rely on tests to get into their dream colleges and programs. The National Center for Fair & Open Testing reports, "A test is completely reliable if you would get exactly the same results the second time you administered it. All tests have 'measurement error.' This means an individual's score may vary significantly from day to day due to testing conditions or the test-taker's mental state." (FairTest, 2012). A student going into a test may understand the information, but might perform better without stress playing into the equation. It is nearly impossible to get the ideal conditions that would allow a student to get exactly the same score on a test twice. Even then, there is still room for error; for example: misunderstanding a question or filling in the wrong bubble on a Scantron. When it comes to high-risk tests like finals and SATs, stress is a significant factor, which leaves room for error. In large part, this stress comes from the pressure to perform well. Teachers and schools may sympathize with students, so they make their tests easier, which leads to grade inflation. Grade inflation changes what students think of their grades, and it negatively affects the schools and the students.

Grade inflation occurs when students can get higher grades with less understanding of the information. Grade inflation has become increasingly common in high schools and colleges. According to Harvard Graduate School of Education, "These inflated scores don't provide an honest and useful indication of student performance, and the pressure to raise test scores has become so strong that testing often degrades instruction rather than improving it." (Walsh, 2017). This grade inflation leads to students getting used to achieving high grades with little effort. When they reach a difficult class with a harder grader, they struggle more, negatively affecting their future and making getting higher paying jobs more difficult. This statement is proved by a study done by the National Bureau of Economic Research, "Being assigned a higher average grade inflating teacher reduces a student's future test scores, the likelihood of graduating from high school, college enrollment, and ultimately earnings." (Denning et al., 2026). While easier tests may seem beneficial to students, they are harmful instead because they lower the expectations for students, while employers still keep the same requirements. Additionally, there is the mental effect that grades have on students. If a student is used to an environment where everyone gets an "A," they feel pressured to perform as well, if not better. A student may feel that anything less than an "A" is a "bad grade," because straight "As" have become the norm. That student may sacrifice their health for what seems like their best shot at these tests.

Many students worry about their grades. While this can be helpful for students to learn work ethic and time management skills, students may struggle with mental health issues like anxiety and depression caused by excessive stress and an underlying fear of failure. According to the American Institute of Stress, "45% of American college students report experiencing 'more than average stress'" and "only 9% of students report 'no stress' or 'less than average stress.'" (The American Institute of Stress, 2025). It is concerning that a large percentage of students feel this amount of stress because of school. While it is normal to be stressed out about grades, at a certain point, constant worry and stress can lead to long term issues.

A study done by the National Library of Medicine with 3489 adolescents shows that if students and

educators do not address these problems, consequences can be life altering or even life ending. "The prevalence of suicide risk was 14% among this sample. Structural equation modeling revealed a significant total effect of academic pressure on suicide risk … accounting for 46.6% of the total effect." (Li et al., 2025). The academic pressure put on students to succeed leads to a decline in a healthy physical and emotional state. Standardized tests, especially high risk standardized tests such as SATs and ACTs, which help determine where a student goes to college after high school, play a major role in this academic pressure. Solely depending on standardized tests means that students only focus on the test, not the material that they need to understand. In addition to the negative mental health effects of standardized tests, these tests assume that all students have identical lives.





Tests linked to major life junctures, like college admissions, can be extremely stressful for students.

Standardized tests act as if every student comes from the same background. They do not take into account how a person's environment shapes who they are. One Harvard article, "Tests and Stress Bias" states, "Students from the most disadvantaged neighborhoods, with both the highest rate of poverty and crime, saw the largest changes in cortisol in advance of testing, suggesting that their scores were most affected — and therefore the least valid measures of what they actually knew." (Tatter, 2019). Students from lower income families experience more changes in cortisol, a hormone that regulates stress responses, before a test. They have more stress over these already high-risk tests because more is at stake. These tests are an opportunity for them to escape poverty by getting a better education and higher paying job in the future. The issue with these cortisol changes is not just mental, but physical. The Mayo Clinic explains, "The long-term activation of the stress response system and too much exposure to cortisol and other stress hormones can disrupt almost all the body's processes." (Mayo Clinic Staff). Everyone deserves the right to a decent education, and a student's financial background should not prevent them gaining knowledge at the expense of their health.

The problem with standardized tests is not the tests, but the overuse and heavy dependence on them. Solely relying on these tests leads to incorrect data and unnecessary stress for teachers and students. There are other methods to measure a student's success, such as GPA and QPA. GPA, a student's grade point average, usually measures grades on a four point scale, with a 4.0 showing straight "As." A QPA, often measured on a five point scale, takes into account harder classes like honors and AP classes. Although some may argue that grade inflation also inflates GPA and QPA, they are still better measurements of a student's success because they show a student's trends over a period of time rather than on one day. The best way to measure a student's knowledge and capability for college accurately is to use as many tools and data points as possible instead of one or two, especially when there are factors that can skew the results.

Standardized tests are not the best way to measure learning if they are the only means of measurement. The same is true for GPA and QPA. Relying on one source of information to determine a student's future is unrealistic and harmful to not just the students, but to society. Whether struggling in college or in the workforce, these former test-takers face challenges that standardized tests never prepared for them to face. That student sitting in that creaking chair, taking their SAT, should not feel that their entire future depends on less than two and a half hours of their life.

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Math Minute: A Quarterly Report About Numbers and Mathematics

Today's Topic: The Secret Lives of Prime Numbers

By Rishi Krishnamurthy

Imagine that you are paying your college tuition online. You create an account, set a password, and enter your payment information. With a single click, you authorize a transfer of nearly $50,000. When you return later to confirm that the payment was processed, the website instantly verifies your identity and grants you access to your account. Suddenly, an alarming thought occurs to you. What prevents someone else from intercepting your information or stealing the money you just paid? How is it that such a large and important transaction can be completed so securely?



A prime number is an integer that has no factors other than one an the integer itself. Examples include the number above: 2, 3, 5, 7, and 11.

My name is Rishi Krishnamurthy, and I am currently a freshman. Each quarter, I write an article about numbers and mathematics for Fox Tales Quarterly. I intend to continue A Math Minute through my senior year, so make sure to follow along in each issue!

In the last issue, I completed my series of articles that discussed famous mathematicians. I traced the mathematics of Newton, Euler, Ramanujan, and Germain, highlighting how each of these extraordinary thinkers advanced the field. In this issue, I will shift our attention to a core topic involving numbers: prime numbers. We all know that prime numbers are numbers that have exactly two factors, the number 1 and the number itself, such as 2, 3, 5, 7, 11, 13, 17, and so forth. You may also have learned about prime factorization. Primes are often introduced in elementary school as nothing more than these concepts, and for that reason, they are frequently dismissed as having little significance beyond basic arithmetic. This is far from the truth. In reality, prime numbers play a central role in modern technology, science, and even nature. I hope that after reading this article, you will gain an appreciation for their surprising importance across so many diverse fields.



The Sieve of Eratosthenes, an algorithm for identifying prime numbers, is accredited to ancient Greek mathematician Eratosthenes.

To start, let us revisit the earlier situation involving paying your college tuition. When you create an online account, your device and the website exchange extremely large numbers, often hundreds of digits long. These numbers are produced by multiplying two large prime numbers. While multiplication is computationally simple, determining the original prime numbers from the product is extraordinarily difficult due to how many possible pairs might be forming the product. For numbers of this size, no existing algorithm can factor them within any reasonable time frame. Even the fastest computers would require far longer than the age of the universe! This asymmetry forms the basis of modern encryption; without it, the information you transmit online, including financial transactions, would be vulnerable to interception.

The study of prime numbers has fascinated mathematicians for more than two thousand years. Euclid, who I discussed in a previous article, proved as early as 300 BCE that there must be infinitely many primes. Long before calculators, mathematicians identified primes by laboriously checking by hand. Methods such as the sieve of Eratosthenes soon simplified recognizing primes. Mathematicians also discovered a wide variety of

primes. For example, palindromic primes read the same forward and backward. Sophie Germain primes remain prime after doubling and adding one. Twin primes differ by two from another prime, and cousin primes differ by four from another prime. An emirp (the reverse of the word "prime") remains prime when reversed. Similarly, Fermat primes follow special algebraic forms. These are very few of dozens of varieties of primes. Even the decision to exclude the number 1 from the list of primes is deliberate, to preserve the uniqueness of prime factorization. Despite centuries of study, primes continue to produce surprising patterns and coincidences.

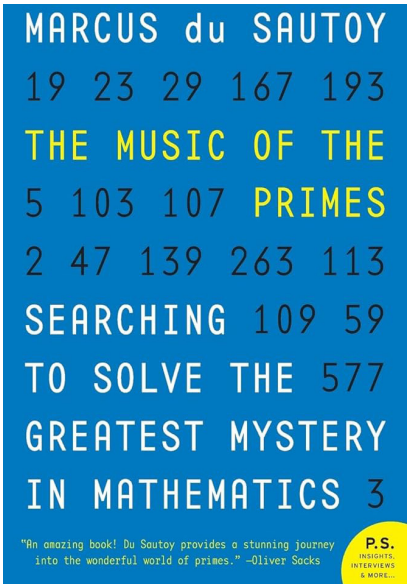


Prime numbers are applicable in use cases that require high levels of data encryption, such as online payment.

According to the Fundamental Theorem of Arithmetic,every integer greater than one can be expressed as a product of primes in exactly one manner. This unique factorization allows primes to behave as the building blocks of all integers in number theory. Additionally, unlike composite numbers, prime numbers exhibit no simple pattern in their distribution. Sometimes, they can cluster together, while at other times, there can be hundreds of composite numbers between two primes. In fact, predicting their location remains one of the central challenges of mathematics, which is the reason they are so useful in encryption. Despite this unpredictability, primes follow long-term statistical trends described by results such as the Prime Number Theorem, which approximates how frequently primes occur among large integers. This theorem states that the number of primes less than a given value x is approximately x/ln(x).

Prime numbers also arise in several fields outside of technology. In biology, certain cicada species emerge from the ground every 13 or 17 years, both prime numbers, to reduce the probability of their emergence coinciding with that of a predator that follows shorter, periodic cycles. In music, rhythms constructed from loops of prime lengths produce patterns that take significantly longer to repeat. In engineering, primes are used in structural design to prevent resonance by avoiding shared factors among component frequencies. In computer science, primes play a central role in hashing algorithms, where they help distribute data uniformly across storage locations.

Prime numbers also remain at the center of many open problems. The search for giant primes continues to produce record-holders with millions of digits, often discovered through the Great Internet Mersenne Prime Search, where ordinary people like ourselves using ordinary computers have found some of the largest known primes. At the theoretical level, major questions persist. For example, the Twin Prime Conjecture hypothesizes that infinitely many twin primes exist, and the Goldbach Conjecture theorizes that every even number greater than two is the sum of two primes. These conjectures have yet to be proved and perhaps never will. A more complex question is whether the Riemann Hypothesis correctly describes the distribution of primes. Despite enormous progress, these problems remain unsolved and continue to drive research in number theory.



Marcus du Sautoy's The Music of the Primes details the history of prime numbers and the continued myster behind their distribution.

This week, I will be recommending Marcus du Sautoy's *The Music of the Primes*, which traces the history and ongoing mystery of prime numbers, from Euclid and Gauss to Riemann and modern researchers. This book explains how the Riemann Hypothesis became the central question in number theory and why the distribution of primes remains so mysterious. The book is very popular because it is written in simple language, for us all to read and enjoy.

Finally, as usual, I will end with a mathematics joke. A historic church was preparing to welcome its tenth minister, and several of the previous ministers, the sixth, seventh, eighth, and ninth, returned for the induction ceremony. When the congregation asked who should deliver the main address, the new minister insisted that the task belonged to the seventh. When pressed for a reason, he replied simply: "Because he is the prime minister."

Orchestra Receives "Superior" Rating

The orchestra performed at Heinz Hall on March 16, 2026, for the Pennsylvania Music Educators Association (PMEA) Music Performance Assessment. A total of 75 members of the high school orchestra attended and played "Elegy" from John Ireland's "Downland Suite" and "Praelude" from Edvard Grieg's "Holberg Suite." The orchestra received the highest rating, "Superior," for their performance.



The orchestra was given a "Superior"rating for their March 16th performance at Heinz Hall.

In addition to the adjudication, the students participated in a clinic with members of the Pittsburgh Symphony Orchestra and Associate Conductor Jacob Joyce.

The Wacky Turn of the 20th Century Wellness Craze That Lives on With Cereal

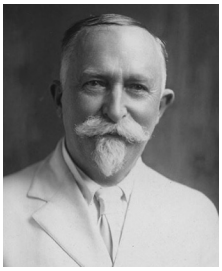
By Karsten Buchert

Today, Battle Creek, Michigan, is a small city, far from being among the top ten in the state by population. It does, however, have one claim to fame: Battle Creek has been dubbed the "Cereal Capital of the World." Why? The city is home to the corporate headquarters of the W.K. Kellogg Company. They are the second-largest employer in Battle Creek. While the company currently produces a plethora of cereal and breakfast treats under multiple different labels, their first product was Corn Flakes.



The main building of the Battle Creek Sanitarium circa 1910.

Let's flip back the calendar to 1866. The Seventh-Day Adventists, a protestant church formed in Battle Creek three years earlier, established the "Western Health Reform Institute." The institute's goal was simply to carry out the needs of the church's healing ministry. The Western Health Reform Institute struggled to stay afloat; the staff were inexperienced yet overworked.



Dr. John Harvey Kellogg

However, the direction of the institute would change when, in 1876, Dr. John Harvey Kellogg was made superintendent. Dr. Kellogg was raised in the Seventh-Day Adventist church and boasted a strong medical resume. Kellogg renamed the institute to the "Battle Creek Sanitarium," drastically expanded its bed count, and most notably, began to offer many rather radical treatment options. Under Kellogg, the facility attracted high-profile clientele, including pilot Amelia Earhart, oil baron John D. Rockefeller, journalist Upton Sinclair, African-American rights advocate Sojourner Truth, multiple U.S. presidents, and many more. Patients participated in breathing exercises, received 15 quarts of water per minute enemas, and "fletcherized" their meals. "Fletecherizing," vigorously chewing food into liquid before swallowing, was an idea Dr. Kellogg borrowed from fellow contemporary wellness guru Horace Fletcher. Patients at "The San," as it came to be known colloquially, were even encouraged to sing along with the "Chewing Song" to help them masticate properly. Here's a sample verse:



Patients at the Battle Creek Sanitarium participate in an elaborate breathing exercise routine.

Chew, chew, chew
That is the thing to do
Chew, chew, chew
The food is good for you

In addition to thinking up unorthodox wellness routines and practices, Dr. Kellogg was a prolific inventor of therapeutic and exercise devices. His electric horse, a saddle attached to a mechanism that would buck the

rider back and forth, became a crucial part of President Calvin Coolidge's daily workout routine. Kellogg also became fascinated with electric light, creating a "Light Bath" that he claimed had a multitude of health benefits. Vibrating belt exercise machines, which were later a bit of a fitness fad during the 1950s and 60s for supposedly reducing fat, were pioneered by Kellogg. The invention of his that remains most prominent, however, is Corn Flakes.



Patients at "The San," as the Sanitarium came to be called colloquially, enjoying light baths.

Dr. Kellogg believed that the digestive tract was a part of the body that many could seek to improve. One way to increase digestive wellbeing in Kellogg's eyes was adhering to a strict vegetarian and wholegrain diet. He felt strongly that his patients should follow a similar diet to his. He would hold frequent lectures denouncing meat as having dangerous effects, often showcasing a wolf that Sanitarium staff had raised on a meatless diet, claiming the said wolf only became aggressive when offered meat. Like Kellogg's mastication methods, the vegetarian and wholegrain diet was not entirely his own philosophy.


The man in the foreground is using Dr. Kellogg's electric horse. The two men in the background are using a vibrating belt exercise machine.


William Keith Kellogg, Dr. Kellogg's younger brother

He borrowed it from the ways of Sylvester Graham, the creator of the Graham cracker. As part of his diet fixation, Dr. Kellogg sought to create an intentionally bland (as not to stimulate any overly exciting or immoral thoughts) bread-like substance that would be easily digestible as is, reducing the amount of mastication required, and also likely reducing the "Chewing Song" by a couple verses. Dr. Kellogg sought the assistance of his younger brother, Will Kellogg, to determine the recipe. Will accidentally overboiled wheat, but decided to roll it out anyway. He noticed that the wheat kernels had become flat wafers, which he proceeded to bake, resulting in crisp flakes. These flakes became an instant hit with the Sanitarium patients. Dr. Kellogg kept them on the menu and, in 1898, with Will, started selling a version of the flakes made with corn to mail-order customers.

The relationship between the Kellogg Brothers was shaky at best. Dr. Kellogg treated Will as his inferior; he was basically only there as someone to relegate tasks to. In 1906, frustrated with being unable to achieve his cereal magnate aspirations, Will left the mail-order business to establish the Battle Creek Toasted Corn Flakes Company, which is now the W.K. Kellogg Company, or simply Kellogg's. Will almost immediately experienced immense success, shipping 175,000 cases of Corn Flakes in his first year of independent operation. Breakfast had never been easier for American households. Ironically, a food item that was meant originally to be served to Dr. Kellogg's generally wealthy patients became ubiquitous. While most of what attracted those upper-class folk to the Battle Creek Sanitarium has fallen into obscurity, the institution, or more importantly, the Kellogg brothers who ran it, one a bit stuck-up and bowel-obsessed and the other filled with entrepreneurial spirit, had an undeniable impact at the breakfast table.



An original 1906 box of Corn Flakes cereal from the Battle Creek Toasted Corn Flakes company.

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The Bayernhof Museum: A Hidden Gem

By Maeve Beresford

The Bayernhof Museum is one of the most unique and fascinating attractions in Pittsburgh. The underrated museum is located in O'hara Township, perched upon a hillside overlooking the Allegheny River. You could easily pass it every day without realizing the charismatic home is hiding right above you. The large Bavarian-style mansion was once the private residence of Charles B. Brown III. Today, it offers visitors a glimpse into his eccentric personality and a showcase for his collection of extraordinary antiques.



Charles B. Brown III (Chuck), builder and former owner of the Bayernhof estate in O'Hara Township.

To understand the charming appeal of the museum, you first must understand the man behind the vision, Charles B. Brown III, known to his friends as Chuck. Chuck was a man of German descent, and his creation of the house was heavily influenced by his ancestry. Bayernhof, translated into English, even means "Bavarian Court." Chuck was described by everyone who knew him as eccentric. Case and point: he owned 283 identical shirts! He was a prankster in nature and loved to host people over, a passion that heavily influenced the design of his home.



Chuck's gambling room with a sneak peak of an opening phonograph in the back.

The house includes spaces like a gambling room, which Chuck himself never used but kept for entertaining friends. His dining table seated sixteen people, with the head chair always reserved for Chuck. The final chair was always reserved for Nipper, one of his large decorative dogs. Nipper has a set seat, and if there were sixteen guests, one was expected to eat in the kitchen, rather than to take Nipper's seat. Throughout the house, you'll notice both "Nippers" (large dogs) and "Chippers" (smaller versions), adding to the home's playful personality.

Chuck was able to afford the home of his dreams from his successful business, Gas-Lite Manufacturing. Gas-Lite Manufacturing was known for a variety of products, but mainly its gas lamps. For the lamps' exquisite quality, it attracted business from all over the country. With his profitable business, he was able to build the home between 1976 and 1982. It was humorously rumored that three old men, two kids, and a blue station wagon built the home. While exaggerated, it reflects the unconventional building process. An engineer, Johnny Nicholas, helped to carry out Chuck's imaginative ideas, and other builders were rotated in and out of the project. Sadly, Chuck passed away at the age of 64 in 1999 from heart disease. In his will, he requested that his home be turned into a museum, allowing his legacy to live on.

Now that you know a bit more about Chuck and the history of the home, let's discuss the fascinating wonders inside! When entering the home, you are greeted by a plethora of artifacts. This includes a chandelier made with spiked battle axes and a life-size German folk statue. In the first of many living rooms sits a standout piece: a Regina Concerto music machine. With just a nickel, a metal disc rises into place and begins to play, demonstrating the wonder of early automated music. Some of them were collected in Chuck's travels to Germany, while most were from a closing museum in Florida in 1988. Most of these instruments were once common in public spaces like hotel lobbies, where people would pay a small fee to hear them play.



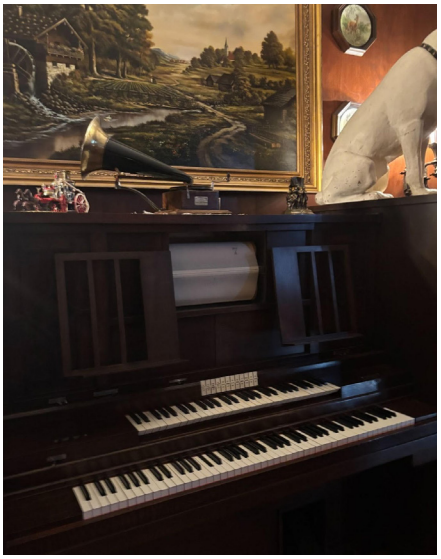
A nickel-operated Regina Concerto music machine.



Chucks dining room table with Nippers at the end. Nipper's seat is given up for no one.

The first living room also housed a painted portrait of Chuck, in which he was wearing one of his 283 blue button-ups. When moving into the kitchen, you might notice the decorated plates that follow the curve of the doorway. If you look hard enough, you will notice that it is painted scenes of Julie Andrews in *The Sound of Music*. This was one of Chuck's favorite movies, and small features of the house are inspired by it, from the music that the machines play to the paintings on the walls. The kitchen itself was one of Chuck's favorite spaces, where he would cook all of his own food for his guests. It features built-in plate warmers, a wall-integrated toaster, and a wide collection of knick-knacks, many of which were gifts. The room also offers a beautiful view of the Allegheny River and Oakmont.

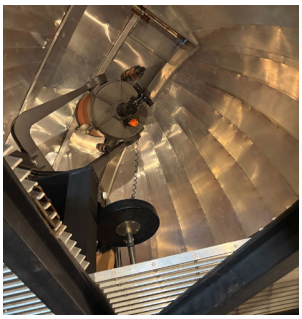
Moving into more of his entertainment spaces, visitors encounter the heart of the collection. Chuck



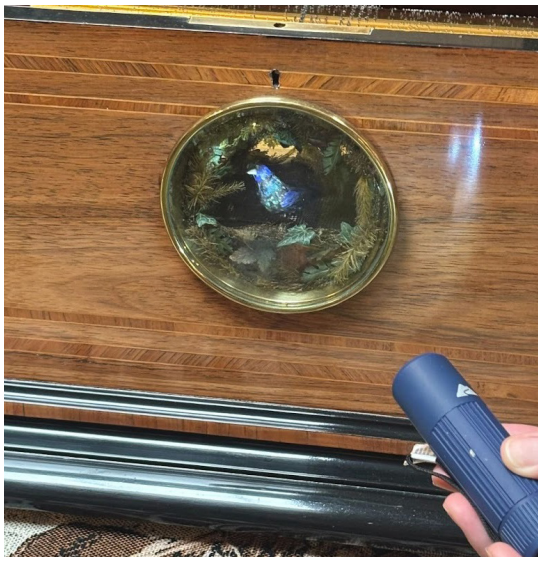
An organ with music rolls, often used to play that music that accompanies silent films.

owned over 165 machines! One room features a small organ that was used to play music and sound to accompany silent movies. A master pianist would make the rolls that could follow along with films. The piano pedals played extra sounds like firetruck noises or a crying baby. Nearby were countless more machines such as the American Playing Piano, the self-playing double violin, and the Wurlitzer harp. The harp is one of the rarest pieces in the collection, with only a few dozen surviving today.

Upstairs, the surprises continue. A chair that looks ordinary plays a gentle hymn when you sit in it, showing that nothing in this house is quite what it seems. Close by is a fan favorite machine, and the favorite of my wonderful tour guide, Lisa: the hand-hammered Swiss music box. This machine is one of only three in the world, featuring a small animatronic bird from the 1800s. The observatory room includes a large telescope, giving the house yet another unique feature and offering a quiet contrast to the many lively and musical rooms below. When entering a guest bedroom, I was immediately taken to Versailles,



The Bayernhof's oberservatory room, an unusual feature for a residential property.



An 1880s Rivenc Bird Music Box, a favorite artifact of Maeve's tour guide, Lisa.

and it didn't surprise me to hear that the room is called the French room. The room was heavily inspired by a French Renaissance design, adorned with gilded details throughout. Between two twin beds stood an ornate nightstand featuring an opening lamp, revealing a phonograph from the 1930s. Also, behind what was seemingly a closet door was a fully functioning elevator.



Three of Chuck's other music machines, clockwise from the left: a 1907 Hupfeld Phonoliszt Violina, a Mills DeLuxe Model Violano-Virtuoso, and a Knabe Ampico Reproducing Piano.

In Chuck's bedroom was his huge collection of Hummel figurines, another testament to his German heritage. His bathroom was about as large as his bedroom, complete with a tanning room and sauna. Some other standout spaces were the boardroom and pool room. Chuck never had any sort of board that he reported to, so we aren't sure exactly why he constructed a boardroom. It was interesting nonetheless. The pool room includes a huge indoor waterfall and mural across the walls. It was a mural from his countless travels to Germany, and it was all hand-painted.

The Bayernhof Museum is an unbelievable hidden gem in Pittsburgh. Since opening to the public in 2004, the museum has been open to private guided tours. It often leaves guests wishing for more as they are amazed by its creativity, history, and countless surprises. I truly enjoyed the tour so much, and I left a few secrets out of my review! Some secrets are better experienced in person, so you will have to experience them yourself!

Visiting the Bayernhof Estate

The Bayernhof is unlike a traditional musuem where tickets to walk around anytime can be purchased online or at a front desk. **The musuem requires prospective visitors to arrange a tour appointment over the phone at (412) 782-4231.** The museum's address is 225 St Charles Pl, Pittsburgh, PA 15215.



Students Place in German Day Competition

Eighteen students recently placed in the annual Three Rivers German Day Competition. In the song performance category, the team of seniors Joseph Comte, Abigail Haas, Auden Jacobson, John McGough, Joshua Murphy, Mira Owens, and Ryan Wang; juniors Collin Fasanella, Jane Maurer, Luke Montgomery, Drew Moyer, Evelyn Owens, Maris Silva, and Ashley Wingard; and freshmen Rebecca Dorneich, Holden Link, and Charbel Mady won first place for their performance of "Ich kündige." Additionally, Evelyn won first place in the poetry recitation category, and in the fictional writing category, second place went senior Ava DeBruyn, and third place went to Evelyn.

The Three Rivers German Day Competition was open to high school students from across Western Pennsylvania and West Virginia and was held April 9th at Washington & Jefferson College.

Approximately 200 students participated in the event which was sponsored by the Western Pennsylvania/West Virginia Chapter of the American Association of Teachers of German (AATG).



Eighteen students recently placed in the annual Three Rivers German Day Competition, held on April 9th at Washington and Jefferson College.



Students Receive Accolades at Slam Poetry Contest

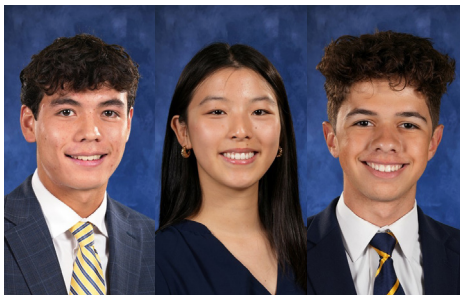
Two students, AJ (Fayth) Johnson and Norah Kovach attended a local slam poetry competition on April 9th. AJ was awarded an honorable mention and Norah won second second place overall. Congratuations to these promising poets!



Norah Kovach (left) and AJ (Fayth) Johnson (right) participated in a local slam poetry project on April 9th.

Students Candidates in Presidential Scholars Program

Seniors Michael Costello, Joanna Li, and Rodrigo Silva have been selected as candidates in the 2026 United States Presidential Scholars Program.



The Presidential Scholar candidates are, from left to right, Michael Costello, Joanna Li, and Rodrigo Silva.

Approximately 5,000 students from about 3.5 million high school seniors graduating this year from across the U.S. have been named candidates in this year's program, and 168 are from Pennsylvania.

Inclusion in the Presidential Scholars Program, begun in 1964, is one of the nation's highest honors bestowed upon graduating high school seniors. Students are first selected for the program based on their superior academic achievements. They are then further evaluated on their academic achievements, leadership and service activities, and an analysis of a submitted essay.

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2025 - 2026



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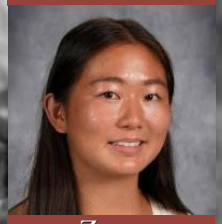
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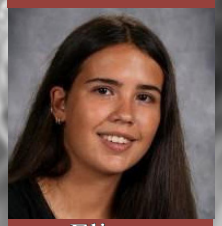
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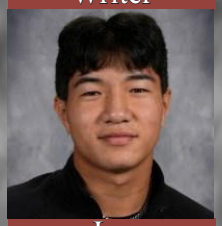
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Multicultural Night













