



STEMBoost Newsletter

Issue XXII

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Kennedy Gold Wins Big at Nationals

Joseph Lee

On the 14th of May, the National Science Olympiad Competition was held at the California Institute of Technology, with the Kennedy Gold Team participating as representatives of Northern California.

Once again, the competition was held in the satellite format to accommodate COVID-19 safety precautions. Participants tested at school sites under supervision, with device events being held live over zoom.

Although participants encountered some minor bumps along the way with difficulties involving the Scilympiad site, issues were solved in a timely manner under the discretion of the head coach. Competitors said unexpected technical issues associated with the online testing format this year was something they had to be on watch for.

On May 18th, competitors and parents gathered together at the CLC to watch the full 2-hour award ceremony live stream after listening to a speech from Mr. Nuno, the principal of Kennedy Middle school.

Kennedy Middle school performed outstandingly, bridging home the second place trophy with a total of 88 points! According to the head coach, Queen-Lee Foo, the team ranked in the top 15 nationally for all events. In addition, they:

- medalled in twenty two national events, most of them top medals
- won 4 Gold medals in Codebusters, Dynamic Planet, Ping Pong Parachute, Rocks and Minerals
- won 8 Silver medals in Electric Wright Stuff, Meteorology, Mission Possible, Ornithology, Solar System, Sounds of Music, Botany, Write It Cad It.
- won 4 Third Place medals in Disease Detectives, Food Science, Road Scholar, Storm the Castle
- won 2 Fourth Place medals in Crime Busters, Write It Do It
- won 2 Fifth Place medals Experimental Design, Bio Process Lab
- won 2 Sixth Place medals Bridge, Mousetrap Vehicle
- won seventh Place in Crave the Wave (continued on next page)

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Fun Fact

What is the most abundant protein found within humans? (See answer in the back)

- won tenth Place in Anatomy & Physiology

- won thirteenth Place in Green Generation

Afterwards, Kennedy Science Olympiad competitors and STEMBoost mentors received certificates acknowledging their achievements from the CUSD superintendent and school board.

Congratulations to Alicia Xie, Allen Li, Chinmay Raghvendra, Harvey Lei, Joel Lee, Mahathi Rajkumar, Michael Smith, Pragya Rama, Rachael Jin, Rehan Babu, Rishi Salvi, Samarth Kashyap, Shamali Rewari, Sohum Uttamchandani, Sunny Yao, and alternates Aletheia Ju, Dev Andra, Vihaan Gope for your amazing accomplishment!

An additional thank you to the Stembost mentors (Amol Rama, Andrew Zhou, Angela Zhang, Anish Bayyapu, Ashish Kashyap, Edwin Xie, Joseph Lee, Iona Xia, Ishanvi Kommula), Mr. Nuno, Mr. Aochi, parents, and everyone whose support made this all possible! STEMBoost wishes luck to everyone for the next season!

College Admissions and Scientific Dishonesty

Ryan Li

Throughout the past year of my life, I have been constantly surrounded by the stress of getting into college, amidst the historically competitive admissions cycle instigated by the COVID-19 pandemic. In addition, many universities had adopted test-optional admissions policies, which makes deciding to submit standardized test scores—such as from the SAT or ACT—to colleges a choice for applicants. Some—like the UC system—had even gone test-blind, meaning that these standardized test scores wouldn't be looked at even if they were submitted.

Within this unprecedented time of uncertainty, I learned to view every college acceptance—including colleges with greater than 50% acceptance rates—as something not to be taken for granted. Looking back on this anxiety-filled time though, I often question why I had been so anxious in the first place.

Within the United States, there are 2,433 4-year colleges and universities that offer bachelor's degrees according to the US Department of Education's College Scorecard—2,070 of which have acceptance rates above 50% (1). Just in California alone, 202 bachelor's degree-presenting 4-year institutions are recognized, with 154 having higher than 50% acceptance rates (2). Looking at these statistics, it is clear that there isn't a shortage in the supply of colleges for graduating high school seniors that aren't insanely hard to get into. Rather, it seems like the intense obsession by society on top schools—such as the Ivy Leagues or the 30 highest ranked colleges on US News & World Report—coupled with the limited undergraduate capacity these top schools have led to this intense competition amongst applicants as well as the very low acceptance rates there. Trying to do everything they can in order to increase their chances of getting into these top colleges, applicants strive to send out the most spotless application they can. Inevitably, this will lead to overrepresentation of some applicant's true abilities and even lead to blatant fabrication in an attempt to stand out.

On May 16, it would be revealed by a group named For Justice In College Applications that Madeline Choi, a Monta Vista senior, had been the primary author of five plagiarized research papers published between January and October 2021 (3). Within the plagiarized paper about social media's influence on the 2016 South Korea Candlelight Vigil, Madeline's older sister, Annabelle Choi, was listed as the secondary author (4). In addition, other students that go to various Bay Area high schools were listed as co-authors in some of the research papers (4). Ignoring the glaring similarities to the original research papers, ranging from the abstracts to the data tables used, the fact that a group of high schoolers could publish five full-length research papers in a span of just ten months is highly improbable by itself.

Even more shockingly, the topics covered amongst the research papers varied widely, from California oral health data analysis to the impacts of COVID-19 on children with Autism Spectrum Disorder (ASD) among others (4). The former paper, which was solely authored by Madeline, was found to have a 78.2% similarity on CopyLeaks to an April 2019 research paper regarding oral health in Brazil, with the author of the Brazil paper stating that “exactly the same quotes” were used in parts of the plagiarized paper (5). Furthermore, the methods of the latter paper implied that these high school students had to obtain Institutional Review Board approval to even interact with the human subjects without supervisor approval, which was deemed “unrealistic” by Ceymi Doenyas, who was the co-author of the original paper—published in November 2020—on COVID-19 effects on people with ASD (5). All of the plagiarized research papers had greater than 40% similarities to their respective original research papers (4).

Moreover, it was revealed by the same group that both Madeline and Annabelle were the editors-in-chief of The Pandemic Times, a now taken-down online science and technology newspaper, in which four articles authored by Annabelle between November and December 2020 possessed greater than 75% similarities to the original articles they were plagiarized from (5, 6). In fact, the plagiarized article on the benefits of video games was published in The Pandemic Times the day the original article was in BBC News (6).

Madeline had been accepted into University of Pennsylvania accelerated seven year bio-dental program this March, with Annabelle being a rising sophomore within the same program (5). Presumably, these research papers and articles played a large role in strengthening their applications before they were found to be plagiarized. Not only does this revelation jeopardize their own offers of admission into the Ivy League institution, but also the concept of integrity within today’s college admissions process. And perhaps most importantly, demonstrating that the whole scientific method behind research can be toppled if high schoolers continue to copy off other researcher’s work and claim it as their own. A problem that can quickly be fixed if society as a whole diminishes the fixation on the idea of having to get into top college to be successful in life.

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Answer: The most abundant protein within humans is collagen, specifically Type I collagen. It assists in the formation of bone, skin, tendon, cornea, blood vessel walls, and other connective tissues.