

WELCOME TO THE LAB

Labs allow students to learn concepts hands-on.



Chelsea Zhou (9, left) and Jack Rohloff (9, right) draw on the table as part of their cellular respiration unit. This activity was used to replace a unit exam. "It was a lot of fun. I very much preferred [it] over having an actual test. It's an interesting way of learning," Rohloff said. Photo by Shriya Wagholikar

Science courses gave students an opportunity to learn new skills and discover career paths. Students chose from different areas of science while improving their scientific thinking during engaging labs.

From learning fundamental lessons to advanced concepts, **Mariam Doss** (12) took one step closer to her future dream career.

"I chose biology as my pathway because I want to be a doctor in the future. Physiology focuses on anatomy and gives me experience with how the human body works. That will be useful in the future," Doss said.

Students in Physiology collaborated during the dissection lab in order to practice key skills and to not make any mistakes.

"I'm still not sure what to major in at college, but I'm leaning [towards] the medical field. I'm enjoying this class a

lot. The chicken dissection lab was fun because we actually had the opportunity to dissect real animals," **Mary Jhellyn Polintan** (12) said.

Similar to Physiology, Chemistry classes also utilized labs and group work.

"We have more group work, and the labs are way better in school compared to online classes because we can see more detailed things happening in the experiments," **Hyejin Choi** (11) said.

Chemistry teacher **Mr. Chris Nafrada** described his excitement for teaching Chemistry in person.

"I'm so excited for in-person labs this year. Chemistry is a very visual subject. The students will definitely benefit from seeing reactions live rather than watching videos, which is what I had to resort to last year," Nafrada said.

Story by *Kate Shin and Shriya Wagholikar*



Senior **Mary Jhellyn Polintan** asks for help from **Ms. Debbie Curley** to identify the parts of a chicken in her dissection lab. Physiology students benefited from hands-on experiences such as dissections. "In Physiology, I get to learn more about how the organ system works together to make your body function," Polintan said.

Photo by *Kate Shin*



Urmika Balaji (11, right) explains the lab to **Rittika Saha** (11, left). The online group lab was a great way for the AP Bio class to study. "It's good to be in a group because sometimes you're not entirely sure of the material. There's always someone in your group who's studied the material, so it's easy to learn from them," Balaji said.

Photo by *Abby Berwick*



Aiden Thakur (11, right) prepares two carts for collision. AP Physics 1 started with a lab to explain conservation of momentum. "The labs help me visualize physics concepts. They're very fun," Thakur said. Photo by *Shriya Wagholikar*

Broderic Karr (9, left) and **Ivy Jung** (9, right) discuss their marshmallow lab. Freshman biology classes used this lab to study macromolecules. "I think this [lab] was an effective way of learning. Everything stays in your memory longer," Jung said. Photo by *Shriya Wagholikar*

PURSUIING PASSIONS *What makes you love your subject?*



"I loved chemistry in high school because it's just so abstract. I enjoyed it more than other science classes for sure. There is so much stuff in the world that we can apply to chemistry. That initial spark of interest carried me to being a teacher today."

— **Mr. Chris Nafrada**



"I love APES because it's a class that's relevant to everybody's lives. We talk about issues that are pressing. APES is full of labs and activities for every topic. I'm also part of the APES Teachers Worldwide, so I get inspiration from teachers all over the world."

— **Ms. Jessica Wakefield**



TEACHING OFFLINE

Ms. Kathleen Shreve returns to teach physics after maternity leave.

"[The physics teachers] have a group chat, so they could help me out. They supported Ms. [Pratibha] Gopal and I, which was fantastic. Coming back, I felt like, 'Okay, this is where the students will be. I'll jump right in and finish off that unit, and get to start having my kind of fun with the next unit, which is one of my favorites.' Overall, I'm super excited to be back."

— **Ms. Kathleen Shreve**

Photo by *Shriya Wagholikar*