

# ACADEMICS



# E N G L I S H



The English classes at d.tech consisted of 9th grade with Ms. Ayers, 10th grade with Ms. Lecroy, 11th grade with Mr. Groh, and finally 12th grade taught by Mr. Pierce.

## English 1

This year, the 9th grade English class explored the implications of the American dream and studied the aspects of American identity and culture through songs, short stories, primary sources, novels, and films. Students developed writing and literary analysis skills.

## English 2

In Ms. Lecroy's 10th grade English class, students focused on research skills and explored the various concepts of literature, such as symbolism, motif, and theme. They had discussions focused on seeing the world through multiple perspectives, such as human nature and individual responsibility.

Students study alongside their peers in Ms. Lecroy's English 2 class.



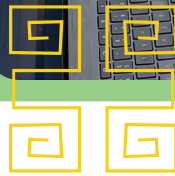
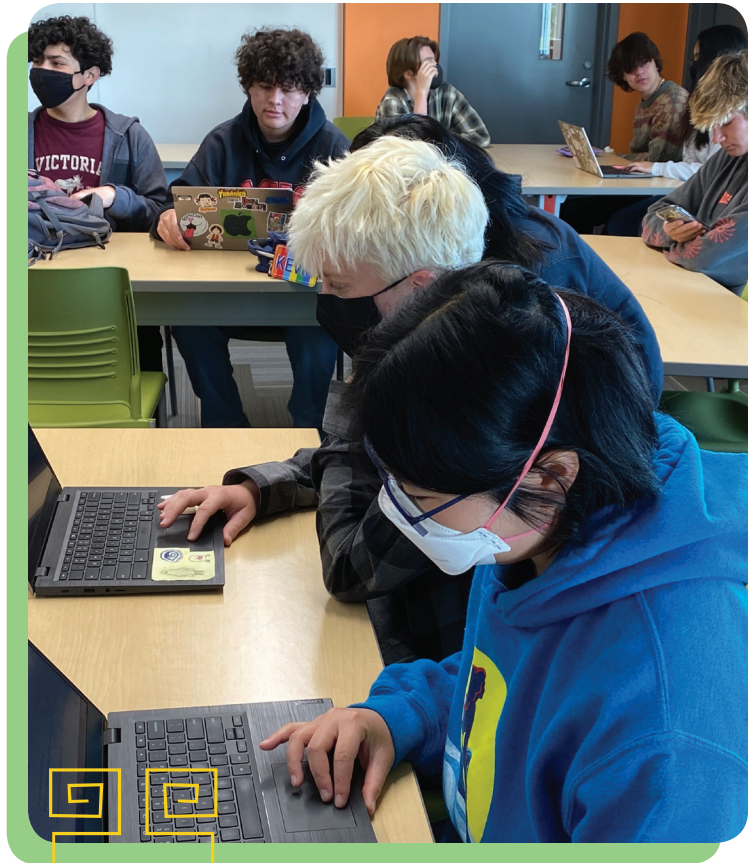


## English 3

In 11th grade English, a broad range of topics were explored, and students applied cognitive strategies to think critically and make meaning from literary and informational texts.

The class also learned to evaluate an author's use of rhetorical strategies and literary devices and utilized rhetorical strategies and literary devices to enhance the impact of their own writing.

They worked on building a "toolkit" of effective techniques for argumentative, informational, and narrative writing.



English 3 students tackling a writing assignment individually.

## English 4

In 12th grade English, taught by Mr. Pierce, the students went over topics ranging from college applications to job shadowing to deep literary analysis.

In unit #1, They did a personalized senior portfolio, where they drafted their common app essays, constructed a brief resume, and scheduled their career job shadows.

In unit #2, They went over elements of fiction, including mastering the ancient art of literary remixing by reading and then writing original screenplays.

Unit #3 they went over elements of literature, including the reading and interpreting a novel chosen from a wide selection of literary works.

Finally, in-unit #4 they went over the use of deep research strategies to compose an APA or Chicago style expository essay on a topic of interest to them.



Mr. Pierce intently looking over student work for his English 4 class.



# MATH

The math classes at d.tech usually go in the order of Algebra 1 for 9th grade, then Geometry for 10th grade, then Algebra 2 for 11th grade, and finally pre-calculus for 12th grade. However, not everyone follows this path; there are some more advanced math classes that d.tech offers: Calculus and Advanced Statistics. If students wanted, they also had the option to take college-level courses through concurrent enrollment.

## Algebra 1

In Algebra 1, taught by Mr. Daniel McGowan, students focused on many topics. These topics included algebraic functions and their corresponding graphs and input/output charts for different types of functions. Later in the year, students were taught various topics such as series and exponential graphs and exponential decay. Topics like these taught students Algebra 1 and prepared them for Algebra 2.

## Geometry

In Geometry, taught by Ms. Aruna Murthy, students learned many concepts relating to the subject, including the Pythagorean theorem and theorems related to the area, similarity, and transformations. Aside from this, students used online resources like Geogebra and in-class investigations to understand how geometry could be applied to real-life and be used for STEM.



Students are deeply invested in their work for Mrs. Aruna Murthy's Geometry class.

## Algebra 2

In Algebra 2, taught by Ms. Alexis Frost and Mr. Daniel McGowan, both teachers taught their classes a little differently. For Ms. Frost, the first semester was spent solidifying Algebra 1 concepts that students may have forgotten about. In semester 2, students fully dived into Algebra 2 concepts such as factoring and operations on rational expressions.

For Mr. McGowan, students learned a variety of topics, including systems of equations, square root, quadratic, absolute value functions, and their graphs, and multiplying or dividing polynomials. Later in the year, students delved deeper into things like logarithms.





Ms. Cyndy Dy helps student Katherine Ioffe ('22) on a Calculus assignment.

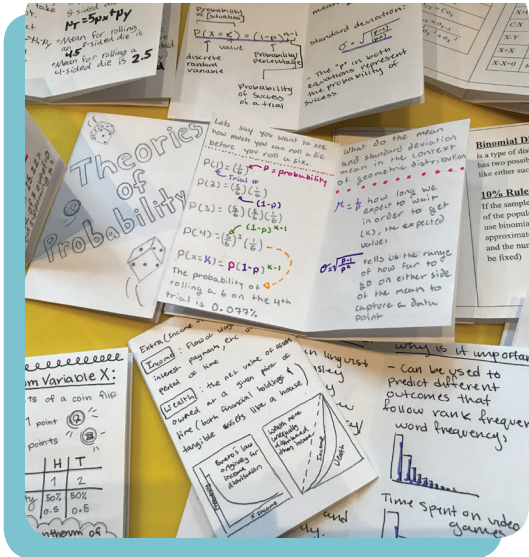


# Pre-Calculus

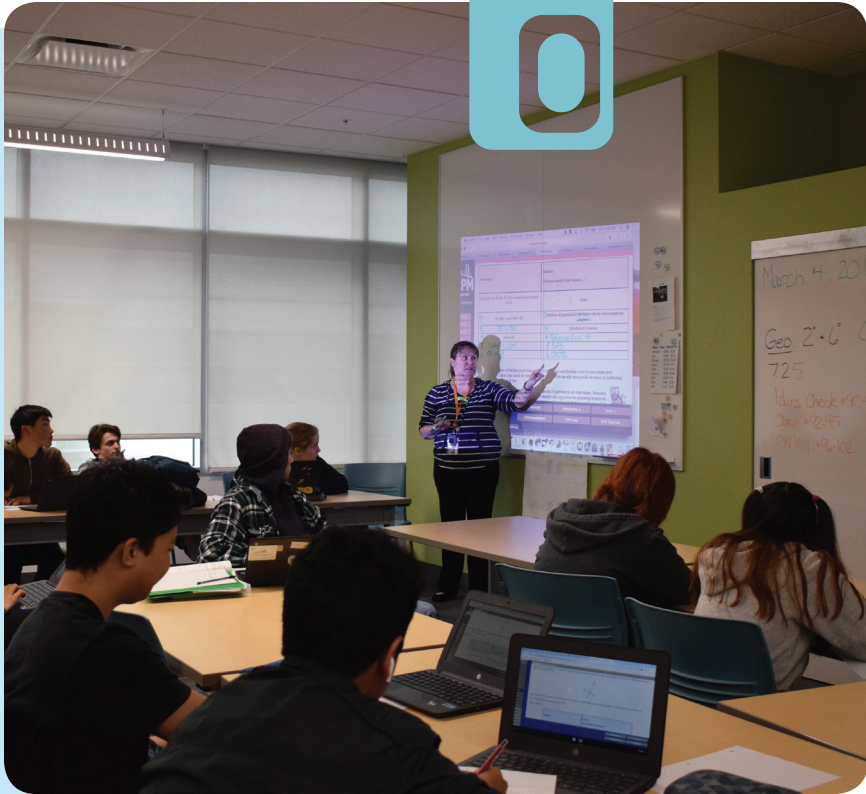
In Pre-Calculus, taught by Mx. Karen Atkinson, students learned about things that would prepare them for Calculus. They learned families of functions and the different ways functions are represented, such as through graphs or equations. They also reviewed function families from previous math classes and studied trigonometric functions, complex numbers, vectors, and matrices.

# Advanced Stats.

In Advanced Statistics, taught by Ms. Cynthia Dy, students focused on evidence-based reasoning. Students also learned tools and practices for data collection, analysis, and presentation; considered how to distinguish chance events; and explored various tests for statistical inference. Aside from this, there were activities to help the class better understand Advanced Statistics; these activities included working with real-world data and scenarios (immigration, employment, and benefits discrimination, medical testing, etc.), as well as projects such as designing, implementing, and critiquing their own surveys.



Student-made zines from Advanced Statistics [Photo by Ms. Dy]



# Calculus

In calculus, taught by Mx. Karen Atkinson and Ms. Cynthia Dy, students focused on a range of calculus topics to give them the breadth of knowledge they need if they choose to pursue higher levels of math. The three main calculus topics students focused on were limits, derivatives, and integrals. Overall, everything they learned in pre-calculus was important as it helped them understand the topics in calculus.



# SCIENCE

At d.tech, students in 9th grade generally either take Environmental Science or Physics; then in 10th grade, students take Chemistry; and in 11th, students take Biology. This year, there were also more advanced versions for the Science classes that were offered at d.tech, namely Honors Advanced Physics and Honors Advanced Environmental Science. Of course, some students may have taken these classes in a different order or taken classes through concurrent enrollment.

## Physics

In Physics, taught by Ms. Alice Pevyhouse, students worked hard on investigations for topics such as Newton's Laws, Gravity, and Energy. Students participated in fun labs related to those topics, such as launching projectiles from lamps. Students also learned about electricity and magnetism and their impact on the world and our life. Finally, students were taught about astronomy and how light is essential in beginning to understand the universe.



Aleksandar Abrams ('23), Elizabeth Lecuyer ('22), and Charlotte Berry ('22) explore circuits in advanced physics honors.



Thandapani Chandrasekaran ('22) and Calvin Hansen ('22) setting up a physics projectile motion experiment outside.

## Chemistry

In Chemistry, taught by Mr. Greg Fenner, there were many different chem topics covered throughout the year. For the first half of the year, students learned the basics of energy transfer and particle interaction; these topics apply to many everyday scenarios, such as cooking food. Students also learned about how to conserve and measure energy as well as thermal engineering by burning chips and Cheetos. In the second half of the year, students were introduced to atomic structure and patterns and used their knowledge to experiment with extracting essential oil from plants; they also learned about chemical reactions and their applications in day-to-day life as well as nuclear chemistry.



## Environmental Science

In Environmental Science, taught by Ms. Fannie Hsieh, students learned all about the environment and why we need to protect it. This course taught students how the Earth is an interconnected system that has been negatively altered by humans and how the survival of humankind depends on us to protect our environment. Environmental Science is a class that might make you rethink your choices regarding the environment.



[Above] Iona Pratt-Bauman ('22) and Sarah Dijamco ('22) collect a soil sample from the slough next to d.tech.



[Above] Sarah Dijamco ('22) bringing up collected water from the slough.



[Above] Iona Pratt-Bauman ('22) watching as the liquid is poured into the beaker.

## Biology

In Biology, taught by Mr. Neal Addicott, students learned topics including ecology, biochemistry, the brain, and the science of learning. Later in the year, students got to learn about cellular biology, cellular division, genetics, and finally, at the end of the year after the students learned about evolution. To get taught these topics, aside from just lectures, throughout the year, students would do different activities such as simulations and learning about CRISPR technology.



# SOCIAL STUDIES

The social studies classes at d.tech usually start in 10th grade with World History, then U.S. History in 11th grade, and lastly, 12th grade with Government and Economics.

## *World History*

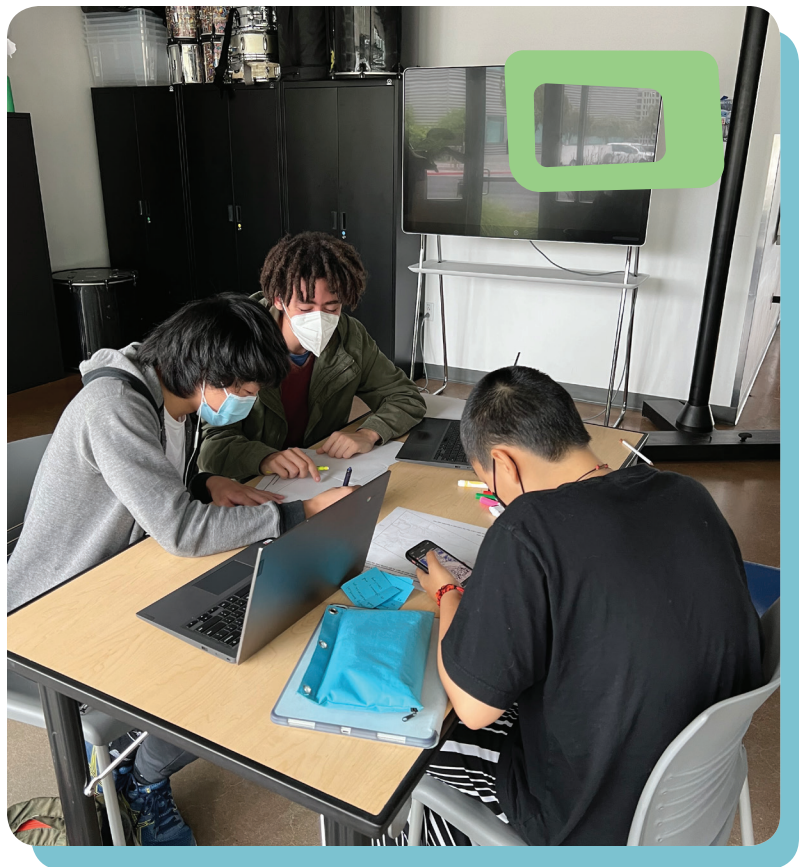
World History was taught by Ms. O'Horo. The topics that were taught consisted of early global interactions of people, goods, and germs with positive and negative effects.

Students looked at ideas around the world and subjects from the Renaissance to the Enlightenment and the Scientific Revolution.

Throughout the year, modern democracy and the social construct of race was studied.



Students participating in a fast - paced whiteboard game to review the lesson.



A recent project World History did with Mike Bam Tyau about patterns in World History. Students brainstormed these patterns observed over the course of the year and created a 'tile' in pairs visually representing one pattern they came up with. The assembly and installation of the tiles will be after Spring Intersession in the form of a larger mural.





## U.S. History

Mr. Gutierrez taught U.S. History. They studied things such as the development of Colonial America before and during the American Revolution. They followed that by learning about the Civil War, ending with the little-known but significant, Spanish-American War. Lastly, they analyzed the historical roles of women in U.S. history.



## Government & Economics

In 12th grade, Government and Economics was taught by Mr. Lonneman.

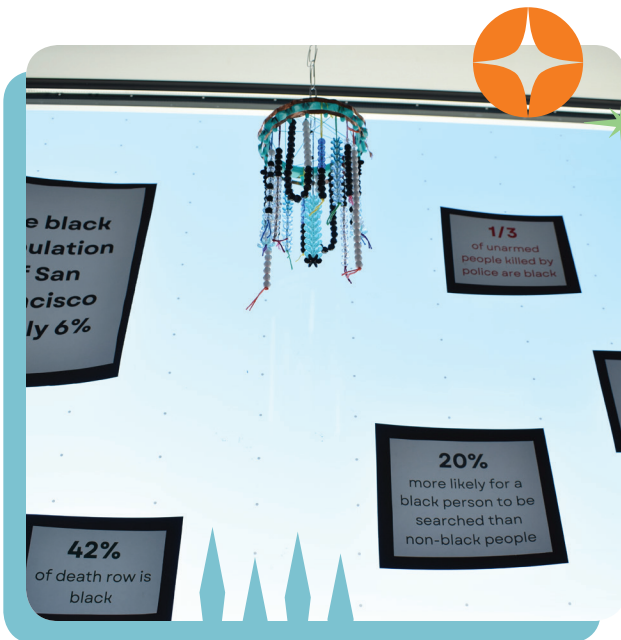
'The purpose of the government is to allow students to research issues that are important to them and how they can use their voices to address those issues,' commented Mr. Lonneman.

Most of their projects are inquiry-focused. They also worked on Economics.

'Economics is about understanding how and why people make decisions.' - Mr. Lonneman

They looked at the different economic systems and made claims on which system they think is the best for the people.

At the very end of the semester, students got to learn about personal finance to prepare them for beyond d.tech.





# S P A N I S H

At d.tech, students in 9th grade generally take Spanish 1, 10th graders take Spanish 2, and 11th graders take Spanish 3. These classes may also be shifted over a grade.

Similarly, students are able to take these classes through concurrent enrollment instead, which allows them to go up to Spanish 4 or higher levels.



## Spanish 1

In Mr. Schneider's Spanish I class, students covered the basics of Spanish grammar, diction, and history through videos, writing activities, and reading activities. The class did several collaborative activities such as conversing as well as presentations. At the end of every cycle, a major assessment was done to test the students' development throughout the year.

[Left] Spanish 1 students collaborate on an assignment.



[Above] A small pizza pie made of various scraps of paper for a class project.

[Right] The Spanish classroom features a unique collaborative and diverse atmosphere as students work on their various tasks.





## Spanish 2

In Mr. Schnieder's Spanish II class, students advanced their Spanish skills through reading, writing, speaking, and listening activities. In Ms. Gonzalez's class, students learned more about Hispanic culture and history from pre-Columbian times.



[Top Left] Spanish 2 students enjoying cultural food during spanish class.



Throughout the school year, students did multiple presentations and had multiple discussions about the impact of colonization on our current world.

## Spanish 3

In Ms. Gonzalez's Spanish III class, students expanded their knowledge about Hispanic culture. They engaged in collaborative discussions about colonization. Students learned about discrimination during the colonization as well as the lasting impacts.



[Above] Ms. Gonzalez assists her Spanish 3 students with inquiries they have.



# ELECTIVES

## Engineering

Engineering was an elective that students could take at Design Tech; it taught them all about engineering and creation. The class was taught by Mr. Wayne Brock, who was also in charge of coordinating the DRG this year.

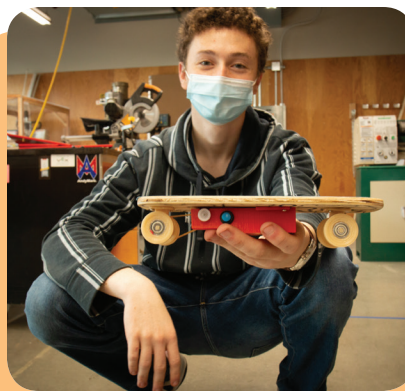
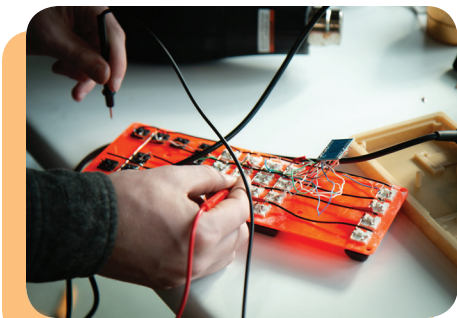


In the first semester, students in Engineering did multiple things to improve their design capabilities and engineering skills.

[Above, Top right] A team of students showing off a truly water-worthy vessel.

[Above, Top Left] Students tackling a design challenge of building a functional cardboard chair.

First was a design challenge where students had to build a tower that could support a specific weight; the catch was that they had constraints on the materials they could use. Students also did another design challenge where they attempted to make a recreation of a prototype and had to modify and improve it. Students got to do a semester-long engineering project in semester two that they chose, designed, and fabricated.



[Above] Engineering students created projects unique to their own passions or goals, including a custom-build keyboard and mini skateboard!



# Prototyping

During prototyping, students took on many different projects that involved a lot of different skills and tools from both the upper and lower Design Realization Garages, AKA the DRG.



One such project that could be seen around the school was the creation of functional (and stylish) cardboard chairs, couches, and other sitting apparatus. For many students, this was a very creative and expressive endeavor, as it allowed them to be creative whilst also having their project be useful for the stray weary student that comes by. This project was merely the start of a long line of unique assignments unlike ones from other classes. During prototyping, a team of students even created a circuit-controlled raccoon!



[Above] The Lower DRG filled with people working on projects and design work.

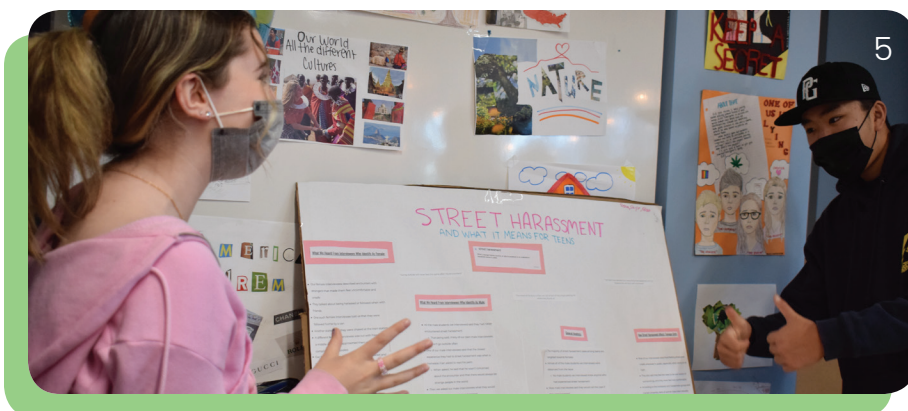


# D. LAB



d.lab was one of the things that makes d.tech so unique. It was a class where students could learn and apply their design thinking and problem-solving skills. All ninth-graders took this class and continued it throughout their years at d.tech. In fact, the Empathy Museum was an experience hosted by 9th grade d.lab students--created to help visitors build empathy for people who hold a certain identity or experience with exhibits centered on learning differences, the effects of stress, discrimination, food & culture, mental health for athletes, gender identities, political circumstances in Hong Kong & more. If students chose, they could pursue a d.lab design thinking-based project in an effort to receive an Innovation Diploma.

While d.lab classes did follow a curriculum, the projects allowed for so much freedom. Did you design an app, or did you create a toy? Did you create a flourishing garden or an organized desk space? The choice was up to you.



- [1] Students gather around to listen to a student-run Empathy Museum exhibit.
- [2] A wide view of Splash of Color's creation process. This mural is the Innovation Diploma project of Lauren Wu ('22) and Annie Phillips ('22).
- [3] The 9th grade d.lab class learning about Design Thinking.
- [4] A side view of Splash of Color mural.
- [5] An Empathy Museum attendee giving a double thumbs-up to the presenter.





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d.lab, at its heart, was designing with empathy. It allowed students to put themselves in the user's shoes and make something that the user truly needed. It required communication, creativity, problem-solving (of course), and networking. Students got plenty of opportunities to conduct interviews.



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d.lab is one of the things that shaped d.tech's philosophy, and it's what inspires many students to get started on their curiosity projects and pursue fields in innovation.



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[6] Two students try to piece together a cardboard puzzle found during the Empathy Museum.

[7] Ms. Pevyhouse reading the instructions of an interactive Empathy Museum exhibit run by a team of students.

[8] Annie Phillips ('22) (2nd from left) Lauren Wu ('22) (far right) posing in front of the Splash of Color Mural along with Pacific Beach Coalition and City Council of Pacifica members.

[9] A group posing for the camera whilst presenting their project in the atrium.

[10] Ms. Pevyhouse's classroom filled with unique d.lab exhibits.





# INTERSESSION

Intercession at d.tech was always a buzz of activity. Classes going on, students working on amazing projects and exploring new things, it was definitely one of the best times of the school year.

While intercession offered lots of VAPA course offerings, it also offered a variety of non-VAPA classes! Some especially popular ones included rock climbing, monoprinting, pinhole photography, pottery, and landscape painting.



[1] Students resting peacefully on large mats during Meditation Boost.

[2] Clarissa Gamez ('23) working with yarn during The Language of Thread intercession class.

[3] The November Intercession Showcase celebration featured many unique performances with cultural dancing and rhythmic percussion.

[4] Products being sold as part of the Entrepreneur Upstart: Selling Swag intercession.



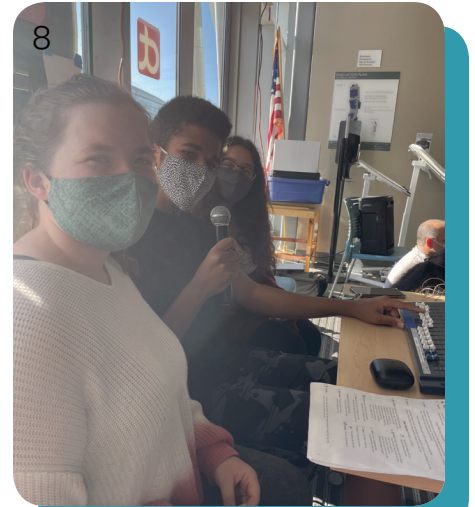
[5] Students presenting their work during Creating a Visual Language.

[6] d.tech Productions: Percussion performing as dancers practice below.





[7] d.tech Productions performing in front of a live audience during the Intercession Showcase.



[8] The d.tech Productions sound crew (Left to right): Riley Bennet ('22), Zack LaPedis ('22), and Angelina Paolinelli ('22).

[9] A student painting the Yellow Submarine during Sculpture.

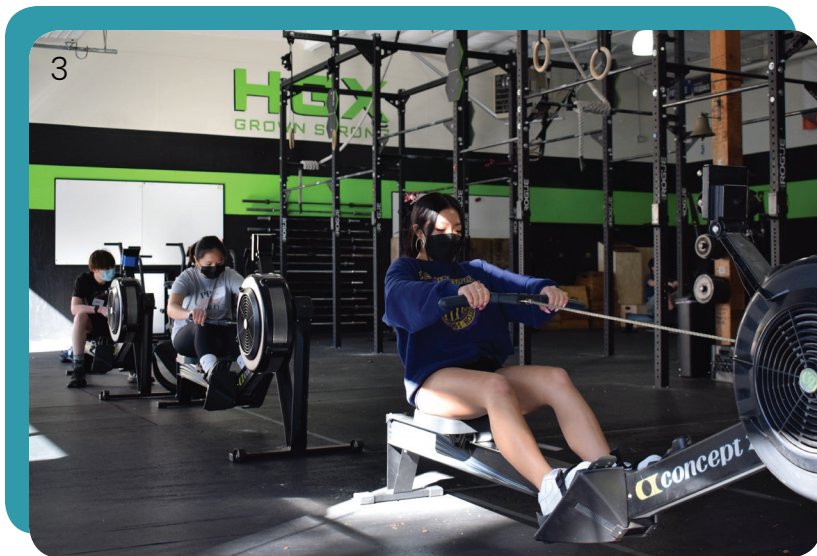
[10] The many striking images of Landscape and Still Life Painting!

[11] The Drumming intercession members practicing their performance outside d.tech.

Intercession was meant for students to explore areas that they haven't before, or go deeper into an area that interested them! Classes ranged from art, to science, to technology. If you didn't like your intercession class, well, it only lasted for 10 days, and you would have tried something new! On the flip side, maybe you'd start a passion project in that field or maybe you'd even go into a career in that field. Instructors ranged from a variety of different backgrounds as well--everyone from professional costume designers to mural artists to even our very own d.tech teachers.







Intersession classes weren't just on campus, though. You could have taken a virtual class, from the comfort of your own home. You could have taken a class at a different location, like Rock Climbing, offered at Planet Granite, or you could have been a Cabin Leader at Camp Jones Gulch!



[1] Leda Dowd ('23) and Margaux Knobel ('23) work on the van renovation project!

[2] The Language of Thread returns for February intersession, with more projects than ever.

[3] CrossFit exercise machines being used by d.tech students.

[4] A tarantula being held by a brave Bug Science member.

[5] Extending a clay-covered hand in the Mold Making intersession class.

[6] Luke Chinen ('22) blocking a punch during a fighting session in Strength & Conditioning.



[7] Yasmin Fugioka ('22) and Ainsley Forster ('22) enjoying their time at Strength & Conditioning class.



All in all, intersession offered an opportunity to explore new things and try learning new skills. It was a great experience for students and teachers alike, and everyone was so excited to share their creations at the end.



[8] Katherine Ioffe ('25) and Cereal ('25) pair up for Capoeira.

[9] At Rock Climbing, students gather to start ascending the rock walls at Planet Granite.

[10] Art Expression: Quilling and Doodling students placing small pieces of paper precisely.

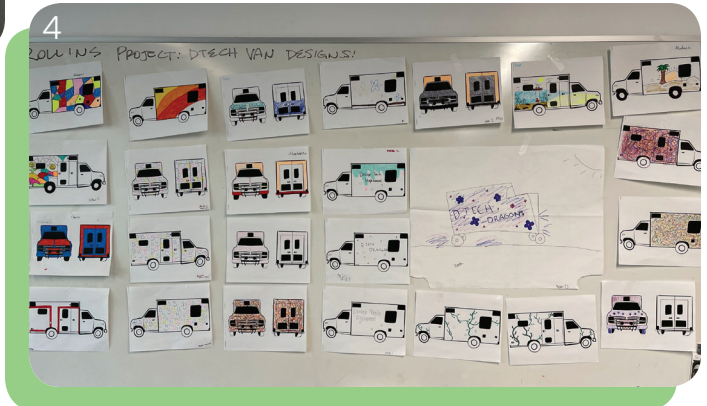
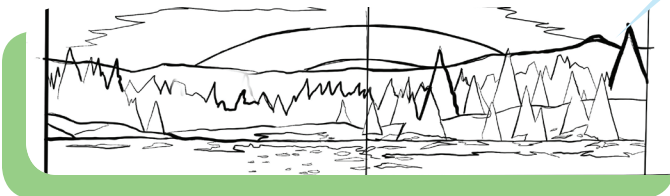
[11] A team of muralists painting a colorful piece on the wall of one of d.tech's offices.





# V A P A

VAPA (Visual And Performing Arts) classes were offered simultaneously as other intersession classes. The choices of VAPA classes included Analog Photography, Animation, Painting + Drawing Murals, and Sculpture. Completing a VAPA class is required for graduation and must be completed before graduation. The majority of students take VAPA classes in their sophomore year.



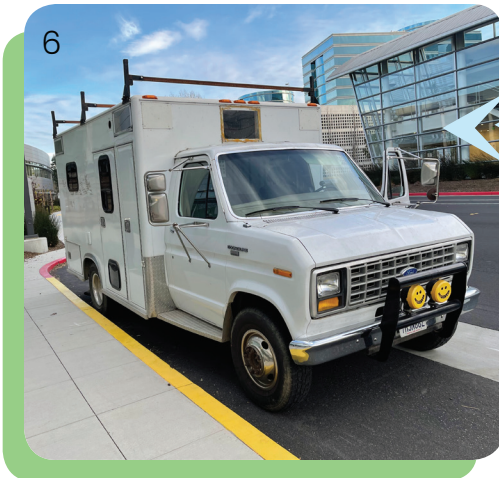
- [1] Mural artists preting their ideas for an office wall mural to Ms. Jennifer Trent.
- [2] Students passing by a sculpture project in VAPA Sculpture.
- [3] An expressive art piece done for the VAPA Murals intersession class.
- [4] A board of ideas for a van redesign--The Rollins Project--brainstormed during VAPA Murals.





[5] A wall of mural paper prototypes.

[6] This van is just asking to be painted for the Rollins Project.

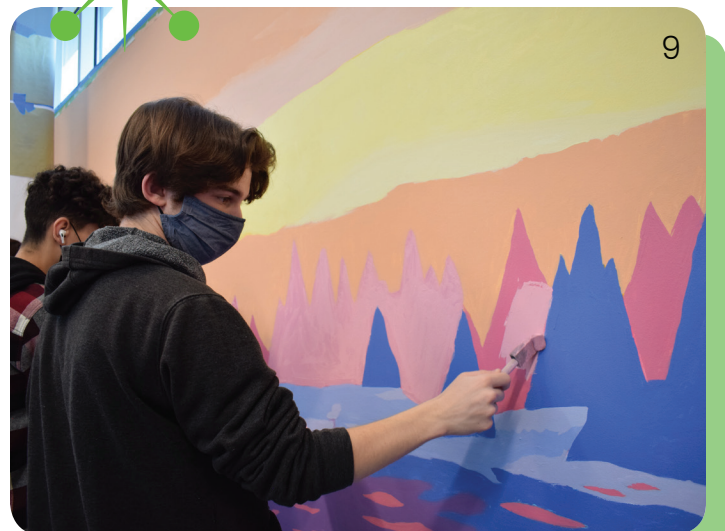


Unlike other intercession options, to complete VAPA classes, the class must be taken for a full year of intercession. As a student's choice locks them into a class, this year, d.tech started 'VAPA samplers'; the samplers were required mini-classes for freshmen to attend during 'WYN Time,' to give them a taste of each class before committing to one for a whole year. Some students loved the VAPA classes so much that even if they didn't need another class for graduation credit, they just took one for fun -- in that case, students didn't have to sign up for them for the whole year. Next to the engineering opportunities at d.tech, the VAPA arts classes provided students a creative outlet.

[7] The muralist team gathered for a photo by their final product--an amazing full wall art piece.

[8] Two students painting a bright yellow sculpture in the lower DRG.

[9] Putting the finishing touches on the colorful background.



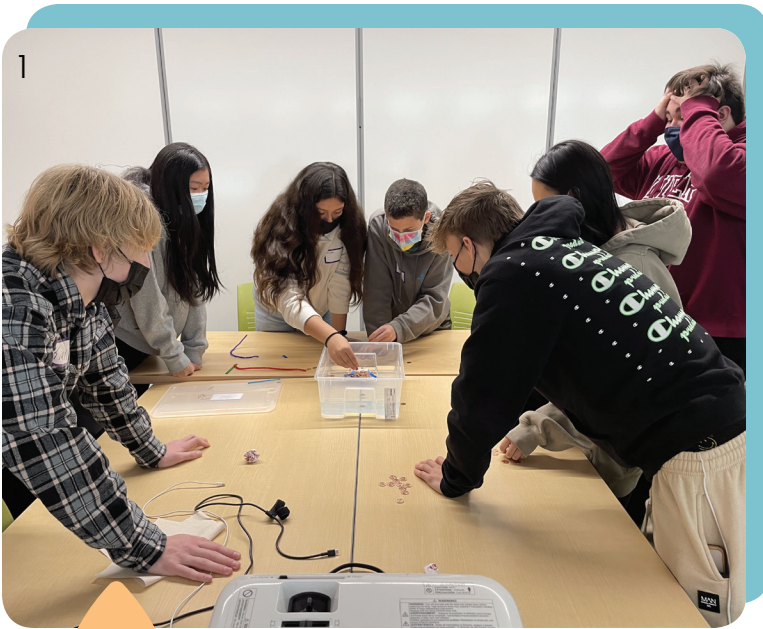


# INTERNSHIPS

Internships were just one more unique thing about d.tech. They were available for juniors and seniors and featured some super cool opportunities! The available internships catered to almost every upperclassmen's niche, or offered something entirely new to try!

For example, you could design trucks for Volvo, work with migrant families, and even make trails for hikers! More than 90% of students reported they enjoyed their internships, and why shouldn't they?

[1] Students around a table investigate during the d.ambassadors internship.



[2] Olivia Baksheeff ('22) on her way to her After Hours Pediatrics internship.

[3] The Pets in Need internship team posing with an amazing pupper.

[4] d.tech students collaborate with Volvo employees during the Volvo internship.



d.tech required you to be in Junior or Senior year to take these internships, as your design thinking skills had to be extremely solid to take on many of these.





There were also student-directed internships, which staff said were the best. Many of these internships included things like helping start-ups expand and helping the county with art instruction.



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[5] The front of the After Hour Pediatrics Clinic.

[6] Pets in Need internship members showering a dog with adoration.



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[7] A medical worktable thoroughly used during After Hours Pediatrics.



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[8] The Volvo internship crew posing in front of a giant blue truck.



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[9] Maxwell Kwan ('22) crunching the numbers during the Tax Accounting internship.

Internships were amazing opportunities, and d.tech made it easy to take them! It's no surprise that students jumped right in!