Science Buddies: Innovation grant sparks student collaboration within Waiākea Complex

This school year marks the inaugural year of full Next Generation Science Standards (NGSS) implementation for Hawai‘i. As a science teacher and parent, I have a hard time containing my excitement. These standards not only elevate the rigor of scientific inquiry in the classroom, but they acknowledge both indigenous and Western science practices, incorporate greater science literacy, and expand our definitions of engineering.

As a precursor to full NGSS implementation, Waiākea Complex teachers foresaw the changes as opportunities to engage multiple campuses in conversations about vertical teaming, student voice, and novel science experiences. Through the investigation of scientific phenomena, students would need to be able to understand information, synthesize findings, and engage in practice.

Making Learning Relevant

To get started, AP Biology and AP Environmental Science students learned about grade-specific standards that aligned with their course content. Students were tasked with creating grade-appropriate activities that support standards-based student inquiry, including the lesson deliverables and potential assessments. What resulted were inquiry activities that were locally based, hands-on and academically rigorous.

Then came implementation. The Waiākea High students and their teachers delivered the lessons in small groups to fifth-graders, while Waiākeaawaena Elementary teachers observed and learned alongside their students. AP Biology students created lessons on food chains and energy flow. Students reported a much deeper understanding of the concept when they had to create an engaging activity with 25 sets of eyes on them. Allowing students to act out the process of energy flow through a food chain with local reef fish all the way up to the apex ulua predator was relevant and accessible for a wide range of learners.

AP Environmental Science students, meanwhile, created lessons to model the interactions between the geosphere, biosphere, hydrosphere and atmosphere. Modeling the topography of Hawai‘i Island with a shower curtain, they helped the younger students understand the importance of the watershed and the impact of pollution across the island.

Tradition of Teaming

Since launching in 2017-18 with a $5,000 innovation grant, 100 high school students have participated in the program. Even after the grant ended, a tradition of vertical teaming has persisted at Waiākea High and AP students continue to craft NGSS lessons and activities to work with elementary students.

When we allow students, at any grade level, to create their learning spaces and engage in projects aligned to their needs, they rise to the challenge, exceed expectations, and develop a strengthened sense of belonging in their community.

Whitney Aragaki is a science teacher at Waiākea High School on Hawai‘i Island. She is a National Board Certified Teacher and a teacher of the NCAC model-certified Public Services Academy.

Editorial Mission

Hawai‘i’s public school system plays an integral role in the Islands as the state’s largest education provider. As the Department’s primary publication, we aim to live up to the meaning of ha‘aheo — to cherish with pride — by bolstering and sustaining pride in public education and touting the successes happening across the system as we deliver on the power and promise of public education.

PublicSchoolProud

I graduated from Hilo High School as one of nearly 700 proud members of the Class of ‘74. Hilo High was then the largest public high school on the island, with students coming from Hakalau to Volcano. In those three years, we made what would become lifelong friendships that endured over time. As we celebrated our 45th-year reunion in Hilo, I am thankful to have been a part of such an amazing class. No matter where our journey may have taken us, being with our friends from high school felt like we had just seen each other yesterday!

Nadine Ando is a partner at McCorkiston Miller Mukai MacKinnon, one of Hawai‘i’s largest law firms.
The Department recently announced efforts are underway to empower schools to more quickly deploy air conditioning units in buildings that can accommodate the increased energy use.

HIDOE’s Schools Directed AC (SDAC) program enables school leaders to initiate the AC process by requesting an official electrical assessment from the Office of Facilities and Operations to determine where there is sufficient electrical capacity to install energy-efficient window AC units. The assessments are being done under existing heat abatement contracts using no additional funds.

Once assessments are completed, schools have several options to move forward, including starting to budget for the project, partnering with community groups for equipment donations, engaging area lawmakers, or seeking funds through the Department’s legislative budget request. “We have schools that have available funding and equipment donations in the pipeline, and this program allows schools to move forward with that,” said Christine Shaw, Assistant Superintendent for the Office of Facilities and Operations.

“The SDAC program supports our mission to provide equitable and respectful learning environments for all students. It offers a new, streamlined avenue for our schools to cool down classrooms and buildings.” HIDOE has completed electrical assessments at more than 40 schools since last fall. So far 200 energy-efficient window AC units have been installed or are in the process of being installed under the SDAC program at 52 schools statewide. Overall, of the roughly 11,000 HIDOE classrooms in the state, about 6,200 currently have AC.

“In the past, schools have had the ability to install AC, but the responsibility was on them to do an electrical capacity study,” said HIDOE Public Works Administrator John Chung. “Under SDAC, we’re able to tell schools which buildings they can install in and how many units they can put in.”

With additional AC units coming online, the Department’s energy consumption continues to be regulated under state law to increase energy conservation and sustainability. HIDOE recently completed a large-scale project to replace 700,000 lightbulbs at all Oahu schools with high-efficiency LED bulbs to reduce electrical load; similar work is underway at Neighbor Island schools.

The SDAC program replaces former guidance (Policy 6700) on accepting and installing donated AC units. Contact your Complex Area’s Administrative Services Assistant for guidance and information.

### SCHOOLS DIRECTED AC PROCESS

- Request and complete electrical capacity assessment.
- Follow procurement law to purchase equipment (Hawaii Revised Statutes, Chapter 103D).
- Satisfy air supply rules (Hawaii Administrative Rules, Section 11-39-8).
- Notify HIDOE Facilities using Open Form and Close-out Form.

### Humble plantation upbringing helps lifelong educator ‘lead with aloha’

I wasn’t quite 5 years old when I stepped foot into my kindergarten classroom at brand-new Helemano Elementary School in Whitmore Village, north of Wahiawa on O’ahu. I was in awe — new friends, new books, new activities, and a teacher — Miss Okihara — whom I adored. It was sometime during my first year of school that I decided that I wanted to be a teacher when I grew up. I never lost sight of my goal, and after graduating from Leilehua High School, I obtained my teaching degree from the University of Hawai‘i at Mānoa.

There were no jobs at the time for those of us who majored in elementary education, so I was fortunate to be hired by the Head Start program. I was thrilled to have my own classroom in a former Japanese language school that I attended when I was in elementary school. It was old and had been vacant for a long time, but we brightened it and turned it into a classroom where our students would gain the skills they needed to be successful when they entered elementary school.

After 15 years with Head Start, I was finally hired at the Department of Education, teaching first at Wheeler Elementary and then opening a new high-tech school, Mililani Mauka Elementary. I loved being a teacher! Every student was different; every one was special, and building relationships and helping them to grow socially, academically, and emotionally was so rewarding. I felt so lucky to be doing something I really loved. At the suggestion of my principal, I decided to pursue educational administration, and for the last 15 years of my career, I was the principal at Daniel K. Inouye Elementary School (formerly Hale Kula Elementary). It was a truly wonderful experience working in a school community where 98 percent of our students were from military families. These families faced unique challenges such as transitions and deployments, and our school became their ‘ohana. I believe that our military students and their families are the perfect ambassadors for our Hawai‘i schools, sharing the aloha spirit wherever their paths may lead them in the future.

When I retired in July 2018, I decided to write a book, and in July 2019, my book was published. “Leading with Aloha: From the Pineapple Fields to the Principal’s Office” shares how my humble roots growing up in a pineapple plantation village strengthened the core values and beliefs that helped me to lead our school with aloha — love, compassion, empathy and respect.

The process of writing and publishing a book was more difficult than I thought, but the opportunity to share my story motivated me to persevere. I encourage all educators to reflect and to write about their own personal and professional experiences — the successes and the challenges — because we can learn from each other. I cannot think of a more rewarding profession than being an educator; we should be proud to share our stories!

Jan Iwase was the principal of Daniel K. Inouye Elementary School for 15.5 years and retired in 2018. A life-long educator, Jan continues to blog about education issues as well as life after retirement.
Waipahu students showcase ‘Past, Present and Future’ through Waikele Center murals

Students from Waikele Elementary, Waipahu Intermediate and Waipahu High schools were recognized for their contributions to beautify Waikele Center with vibrant murals depicting the area’s past, present and future.

“This meant a lot that I could leave a mark on the world before my senior year ended,” said Waipahu High senior Mariel Facunla. During an August 20 ceremony each student received a certificate commending them for their hard work on the murals, which span 900 feet. Each school also received a certificate acknowledging the school’s outstanding community service. Members of the community can view the mural while construction takes place at the center’s former Kmart location.

Janelle Tapat is a senior at Waipahu High School and writes for the Cane Tassel student newspaper.
These video updates replace the Kick Off Your Week e-mail newsletter as we continue to incorporate more dynamic and accessible ways to reach our community. In addition to the weekly video updates, I will also be hosting Talk Story Live, a monthly Facebook livestream. Stay tuned for that. Earlier this month I discussed the importance of student attendance in my first “Talk Story” installment on Aug. 18. We know that students cannot be successful in school if they are not present. We want to see students present, engaged and successful. In my Aug. 26 segment, I shared some of the innovative programs and partnerships we have in place to increase access and participation in our school breakfast offerings. Having a healthy breakfast helps fuel our students for a day of rigorous learning experiences. Whether I’m sharing the latest HIDOE initiatives, communicating our success stories, answering questions from the community, or interviewing exceptional individuals, I look forward to this opportunity for connection, engagement and discourse. Catch up on past episodes here: https://vimeo.com/showcase/6228362

Dr. Christina M. Kishimoto
We recently launched “Talk Story with Dr. K,” my weekly video update that gets posted to our website and social media accounts every Monday morning. I hope you’ve been tuning in.