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(Above) Seventh-grade student Julieta H. with her work from the “Power of the Influencer” Project at High Tech Middle North County.

(Cover) Jeremy Farson’s twelfth-grade art class at High Tech High International created their own version of one of the panels in Jean-Michel Basquiat’s “Grillo.” To learn more, visit his digital portfolio at jfarson.weebly.com

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Welcome

Schools are one of the last sacred community spaces in our society.

—Lillian Hsu, High Tech High Unboxed Podcast

Good communities don't make themselves.

—Robin Wall Kimmerer, Braiding Sweetgrass

Before 2020, you could have been forgiven for thinking that school buildings were an anachronism. After all, students can go online to read texts, watch lectures, answer questions tailored to their ability level, even talk to their teacher—so what does in-person education offer other than the distractions of social life?

But the pandemic taught us that the “social life” of school is what makes it, in Lillian Hsu’s words, a “sacred space”: within the school walls, people from across generations and social backgrounds gather together day after day to work towards a shared purpose.

I thought of this while reading *Thrive: The Purpose of Schools in a Changing World*, a new book by Valerie Hannon and Amelia Peterson. They cite the findings of the Harvard Study of Adult Development, which tracked 724 men from 1938 to 2013, at the end of which the researchers declared, “The clearest message that we get from this 75-year study is this: Good relationships keep us happier and healthier. Period.” Hannon and Peterson point out that cultivating good relationships is not normally framed as a “learning issue,” and demand “If the good life is built with good relationships, is it to be left to chance and intuition?”

We didn’t set out to make this an issue about cultivating community and relationships and schools, but it’s clearly on the minds of our writers and editors. In this issue Chris Dolgos shares how his school, Genesee Community Charter School, grounds its curriculum in the history (and prehistory) of the land it sits on, fostering learning that is “place-based” as well as “project-based”; Kaleb Rashad shares six “equity stances” for liberatory project-based learning; Dana Gaertner explains how teachers can use “project-maps” to foster a sense of shared ownership for the work among students (and even families); three biology teachers describe their shared honors curriculum, which combines student autonomy with responsibility to their peers; Sara Kennedy reveals the myriad ways that a school’s English language learner (ELL) coordinator makes sure that the bonds of school community expand further than the bonds of shared language fluency, and Erin Bower asks teachers to attend not only to the plans they bring to class, but to the “presence” they bring.

Thanks for joining us!

Alec Patton,
Editor-in-Chief



Genesee Community Charter School Kindergarteners engage in fieldwork at Penn-Dixie Fossil Park and Nature Preserve.

When Place Shapes The Product: The Genius Of Place-Based Education In PBL

*Chris Dolgos
Genesee Community Charter School, Rochester, NY*

During the Paleozoic Era, Western New York was covered by a warm, shallow sea, home to trilobites, brachiopods, crinoids, and other exotic marine creatures. Fast forward four-hundred million years to 2019, and Genesee Community Charter School kindergarteners stand in the very spot these ancient animals lived. I'll let their teacher, Keri Gonzalez, describe the scene: "As the bus pulls into the dusty, barren parking lot of Penn Dixie, the kindergarteners look anxiously out the window for signs of waves and sandy shores to play in. When they hear that the ocean 'used to be there,' they are at first confused and very disappointed. But once the fossil digging begins and the ocean of the past is brought to life through the finding of the creatures' fossilized remains, the kids are hooked!"

The kindergarteners' visit to the Penn-Dixie Fossil Park and Nature Preserve, an hour west of their classroom in Rochester, NY, supported their study about prehistoric life. More importantly, it helped them better understand what lived here long ago and how they are connected to the place, shared across millenia by trilobites and five-year-old humans. By connecting their sense of wonder to a sense of place, these kindergarteners have taken their first steps on a journey into their school's place-based curriculum.

Embracing the Power of Place at Genesee

Place-based education (PBE) centers where we live as the touchstone for teaching and learning. Informed by the work of progressive educators and the nature study movements of the early 20th century (Dorris, 2019) and the work of David Sobel and the Center for Place-based Education at Antioch University (Smith, 2019), PBE is a powerful ally to project-based learning (PBL) because it centers a project in a place either known by students or valued by the community, making the work literally “grounded” in the students’ lived experience.

Genesee Community Charter School (GCCS), located on the campus of the Rochester Museum & Science Center (RMSC), is part of the EL Education network. At GCCS, centering students in a place-based curriculum provides them with a deeper understanding of Rochester and the surrounding region by engaging in meaningful work with local experts, rigorous fieldwork experiences, and carefully crafted classroom experiences that integrate social history and the natural world (O’Malley, 2016).

GCCS’s place-based curriculum grew out of the Genesee River Valley Project (GRVP), a teacher-led initiative of the Rochester City School District in the 1990s. By focusing on the Genesee River, students could “examine the geography and geology of the watershed, the human interactions with it, the groups of people that made the region home, and the industrial and technological changes and benefits that came with establishing a city on the river” (O’Malley, 2016). Like many innovative urban education programs, the GRVP fell victim to fickle budgets and shifting political winds.

However, the GRVP became the catalyst for a more fully-developed place-based curriculum that teachers at GCCS have used and honed over two decades. Students see how the place they call home has been transformed by natural and human development over the past 500 million years. Genesee students are immersed in place-based learning that empowers them to know their community’s past with an eye towards its future. The curriculum itself is broken into six school-wide time periods and is mapped across the K-1, 2-3, and 4-5 loops. For example, when the whole school is focusing on prehistory, kindergarteners are learning about life in the Paleozoic Era warm seas at the same time that second-graders are looking at the earth-moon system and the role of local astronomers in present day scientific research. Upstairs in fourth grade, students are learning about the formation of the Genesee River and the role glaciers played in shifting the river’s course over harder rock formations, giving Rochester its signature waterfalls. Within each grade level, English Language Arts

(ELA), science, and social studies standards are aligned to support teachers in crafting Learning Expeditions: twelve-week PBL units that map out what the students will learn, how they will be assessed, and what the final product will look like.

The sixth-grade curriculum at GCCS functions a little differently. After six years of studying the local history of their community, sixth-graders are ready to be change-makers in the place they know best. Their work coalesces around a student, teacher, or community-identified “hot topic” upon which teachers build a year-long curriculum. The idea here is for students to examine their community’s needs and pose practical solutions, from supporting bike lanes and equitable recess policies in schools to advocating for a food policy council and creating murals with local artists. Because sixth graders tackle a new hot topic every year, teachers need to be nimble and responsive in curriculum and product design. The grade-level content standards are still addressed, but they bend to the prism of the place and the needs of the expedition.

Building the PBE Learning Expedition

A learning expedition, like all PBL curriculum planning, requires teachers to know their content, know their students, and in the case of GCCS teachers, intimately know the place they are centering for the expedition. Learning Expeditions have been refined over the past twenty-five years in EL Education schools and are codified in their Core Practices handbook (EL Education, 2018). Learning expeditions at GCCS last ten to twelve weeks and are usually broken into three case studies. These case studies are shorter arcs of instruction lasting 2-4 weeks within an expedition that hone in on particular content and address a specific guiding question. These case studies build on one another and support students towards their final product, showcased at a public exhibition.

To better understand how all these moving parts work, let’s look at the most recent kindergarten expedition, “The Wonder Watchers,” in which students learn about the Paleozoic warm sea.

Teachers begin with a “big idea”—that is, the essential understanding they want students to gain, and keep for the rest of their lives. In “The Wonder Watchers,” the big idea is “The Earth has a long story that has changed over time.” This is informed by our school’s curriculum map and the Next Generation Science Standard disciplinary core idea ESS1.C: The History of Planet Earth, which reads, “Some events happen very quickly; others occur very slowly, over a time period much longer than one can observe.” From the big idea, we derive a “guiding question.” For Genesee teachers, the guiding question most

often comes back to Rochester, the place we call home. Long-term learning targets then name the content knowledge and disciplinary skills required to answer the guiding question. You can see how “The Wonder Watchers” progressed from “big idea” to “long-term learning targets” in Table 1.

Table 1: The Progression From Big Idea to Long-term Learning Targets

Big Idea	Guiding Question	Long-term Learning Targets
The earth has a long story that has changed over time.	What is the beginning of earth’s story where we live?	I can describe the Paleozoic Sea. I can sequence and explain the process of fossil formation.

Teachers translate these long-term learning targets into daily and weekly instruction using the standards-targets-assessment (STA) planner (see Table 2). The STA planner provides teachers with a foundation on which to build the learning expedition and its three case studies. Standards-targets-assessment alignment requires teachers to think critically and holistically about what they expect students to know and do (Stiggins, et al, 2005). It also means bringing it back to time and place, as we can see in the long-term target. Under the long-term target are “nested” targets, such as “I can sequence the events in fossil formation.” These nested targets help teachers scaffold instruction towards the long-term target.

The STA document provides both the structure for the learning expedition’s case studies and serves as the pacing guide towards both formative and summative assessments. Teachers often view standards as antagonistic, bothersome dictates, but at GCCS they serve as powerful allies in helping shape what will be taught, what will be assessed, and how they will get there. Teasing out the genius in NGSS ESS1.C allowed our kindergarten teachers to craft an expedition that connects place across time and connects students’ awareness to a world beyond themselves.

Table 2: Sample Standards-Target-Assessment alignment, Kindergarten “The Wonder Watchers” Expedition

Standard	Long-term Learning Targets & Nested Targets	Assessments
The earth has a long story that has changed over time. NGSS ESS1.C	I can describe the Paleozoic Sea. • I can describe the ocean habitat (salty, warm, shallow). • I can name five prehistoric sea creatures. • I can explain why the Paleozoic sea is not here anymore. I can sequence and explain the process of fossil formation. • I can sort fossils by similar characteristics. • I can explain what a fossil is. • I can sequence the events of fossil formation.	Drawing of the ocean habitat. Performance task of naming 5 prehistoric animals. Interview question: Why is the Paleozoic Sea not here anymore? Performance task to show the sequence of fossil formation On demand sequence of fossil formation process Interview—What is a fossil?

Another example of how place shapes the development of an expedition plan is in our second and third grade “Village to City” Time Period (see Table 3). This learning expedition focuses on Rochester’s rise as America’s first “boomtown” during the first Industrial Revolution as flour milling became the economic driver for the city and the construction of the Erie Canal allowed trade to move across New York and around the world.

Table 3: Sample Big Idea progression, Grade 3 “Amazing, Impossible Erie Canal” Expedition

Big Idea	Guiding Question	Long-term Learning Target
Simple machines make work easier.	How did simple machines make the impossible, possible?	I can demonstrate how simple machines made work easier for the farmer, the miller, and the canaller.

As the expedition plan takes shape, teachers also begin plugging in fieldwork, guest experts, anchor texts, and classroom experiences that will give substance to the case studies. A typical third grade expedition in this time period focuses on the farm, the mill, and the canal, so students visit a working wheat or grain farm, as well as the High Falls district of Downtown Rochester, where grist mills were located in the heyday of the “Flour City.” Ruins of former mills on the banks of a 96-foot waterfall provide a stunning example of how a specific place in our community transformed a city and its citizens. Classroom experiences with simple machines provide opportunities to see how levers, pulleys, and inclined planes made work easier in early 19th century Rochester.

As the expedition plan and its case studies are built, teachers identify texts, topics, targets, and tasks to provide for coherent instruction and assessment of social studies and science content. This “Four Ts” document helps teachers choose high-quality and high-leverage texts to teach both content knowledge and requisite ELA skills. A new addition to our expedition planning is the Dimensions of Equity Focus Area that requires teachers to consider how social justice and culturally relevant pedagogy is being attended to in the plan (Hammond, 2020). Informed by Dr. Zaretta Hammond’s work, this document helps teachers identify blind spots and build liberatory practices into their work with children.

Designing the Final Product with Place in Mind

As teachers at GCCS present their initial ideas at mucking sessions (named so because we often get stuck in the muck!) colleagues provide feedback through a series of protocols to further refine the product and learning expedition components. This occurs three times a year, one for each trimester's expedition. Rounds of feedback provide teachers with increasingly tight and detailed plans. Critique is an essential part of expedition planning at Genesee.

Place is often the driving force in our school's final products and exhibitions. For example, our kindergarteners used their visit to Penn-Dixie as a crystallizing moment to bring the creatures of the Paleozoic seas to life in an arts integrated performance. Dressed in full-size trilobite and crinoid puppet costumes they designed themselves, students narrated the story of the animal defenses and food chains of this ancient era. kindergarten teacher Keri Gonzalez adds, "Movement, song, play, and hands-on activities are critical to help kids understand this content. Acting out fossil formation, playing as sea creatures, singing about the sea and playfully changing lyrics to match what we learned, helps students know the earth has a story and it is told through the fossils of long ago."

These exhibitions provide students an opportunity to share their learning and educate others about this place in time. While Gonzalez has taught this expedition eleven times, she gleans something new each time she does. Expeditions, while bound to place, can manifest varied products. For example, one year the same place-based content yielded a guide book about the prehistoric creatures of Western New York while another time led to a classroom fossil gallery.

At GCCS, our Place-based curriculum can yield a variety of unique products to meet the needs of students and our community partners. GCCS final products honor the attributes of high-quality student work: craftsmanship, complexity, and authenticity. They are also deeply rooted in place, giving students a touchstone to their community. One field study in which fourth and fifth grade students participate follows the course of the Genesee River, from its source as a spring in the hills of Gold, Pennsylvania, to its mouth at the Port of Rochester on Lake Ontario's southern shoreline. This overnight fieldwork provides students with opportunities to collect scientific data on the temperature, turbidity, and velocity of the river as it winds north over 157 miles, dropping over 2,000 feet in elevation as it flows. In the two decades that GCCS students have participated on this trip, there have been a variety of final products to help center the river and its place in our region and community. Many of these products can be found in

Models of Excellence, EL Education's Center for High Quality Student Work, and they range from poetry anthologies that weave together figurative language and earth processes, guide books, note cards that discuss the formation of waterfalls along the Genesee River, and a scaled topographic model that will be used to educate other classes (read more about these in the appendix on page 17).

Because the Genesee River is integral to the school's curriculum and community, GCCS recently took on its first whole school learning expedition. In 2017, multi-age, vertical teams of K–5 students and teachers focused on a different part of the river or its tributaries, connecting the experiences back to grade-level standards and producing narrative non-fiction in grades K–3 and scientific writing in grades 4–5. This learning expedition also inspired students to participate in the Global Water Dance that year and with the help of the Dance and Movement teacher, they choreographed site-specific pieces that connected to the place their vertical team studied. In addition to connecting to the natural world, students had the opportunity to collaborate with peers across grade levels and contribute to a whole-school project, Bugs Tell a Story. Older students established a new rapport with primary students and teachers and parent chaperons remarked on the sense of community and purpose the students showed in their interactions with each other.

Visitors to our school often remark, “That’s great work, but we could never do that,” or “How do you find the time and resources to make this happen schoolwide?” We had the privilege of adapting and improving a curriculum that had already been established, but we also made some critical decisions about what is most important and robustly funding what we value. Fieldwork, for example, consumes a good portion of our school’s budget. It is that important to us. We make sure teachers have access to local experts to learn from and bring those experts to the school to help teach our students. We critique our plans and hold ourselves accountable for high-quality teaching and high-quality student work. Maybe you can’t change the funding mechanism of field trips at your school or shift professional development days to curriculum writing, but there are tangible steps you can take to lay the foundation for fostering a greater sense of place in your PBL projects.

Ready to Start?

Twenty years of products and hundreds of learning expeditions means GCCS has a pretty solid grasp on place-based education and has designed protocols and structures to support its program. So what key moves should schools and teachers consider if they want to center place in their PBL projects? While no means definitive, here are a few key take-aways based on our success.

Know Your Place

What do you really know about the place you call home? What are the hidden histories of your community? What natural phenomena have shaped it over the past 100 years? The past 10,000 years? Spend time with local experts—historians, naturalists, geologists, authors, to name a few—and build your own background knowledge. Each year, GCCS teachers work with local experts during summer professional development in service of their learning expeditions. Curriculum and product design rest not only on your pedagogical know-how, but on the site-specific knowledge of place, too. Every community has a prehistoric past. What evidence can be found where you live? Every city has been touched by the Industrial Revolution. What are the artifacts and stories that bring it to life for your students?

Take Small Steps

It's tempting to “go big” with a place-based project, but less is definitely more. Start with a smaller unit or a case study to try out. Dabble in a few of the PBE design principles rather than all. Not used to taking kids out of the classroom? Co-construct norms with students and practice them. Not sure how to craft a full-blown product around a place? Start with a project you've already tried and adapt it (and use models from HTH Project Cards, EL Education's Models of Excellence, and PBLWorks as inspiration). Before Genesee students delve into overnight fieldwork, they experience day trips to local parks, building stamina and skills. Teachers, too, have to go slow and make sure what they've planned will actually work. Test driving products and lessons with teammates helps us identify weak spots, potential places for student misconception, and misaligned standards.

Plan Tight, Hang Loose

As in any project, the more carefully crafted and prioritized the standards, targets, and assessments are and the more carefully you've curated texts, site visits, and learning experiences, the easier it will be to pivot if things change. Sometimes the “A-ha!” moments of students

or pandemic teaching (as we've all experienced most recently) will take the study in a new direction. Knowing your plan and your students will provide you with flexibility to revise, omit, and adapt as needed. For example, this year, the lack of bus drivers in a pandemic meant the field study to Penn Dixie had to be cancelled. In response, teachers figured out a way to "bring the beach" to school by enlisting volunteers from Penn Dixie, who brought tubs of rock and fossils for students to explore, sort, and study in their classrooms.

Creating learning experiences that honor and center a place are unique and valuable opportunities for students. They can also be transformative for teachers, as we learn to see our community through a new lens and create projects and products in service of our shared history and as stewards of a shared environment.

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Appendix: Examples of placed-based projects from Genesee Community Charter School

You can read more about each of these projects by searching for them by name in the EL Education “Models of Excellence” collection (<https://modelsofexcellence.ededucation.org>)

Shifting Gears (2013)

Using the bicycle as a lens for a year-long focus, sixth grade students at the Genesee Community Charter School in Rochester, New York learned how they can make a difference in their own community by engaging in community activism.

Bugs Tell a Story (2017)

In effort to raise awareness of the state of a local river, GCCS K-5 classes developed a schoolwide expedition focusing on the health of the Genesee River in the spring of 2017.

Becoming #ROCBelievers (2018)

In 2018, sixth-graders were immersed in a year-long exploration of critically examining the city’s renewal efforts, asking, “Whose renaissance is it?” They explored individual and group identity, the impact of systemic racism, and analyzed the disparities across neighborhoods. Teaming up with local artist Shawn Dunwoody, students went into the city’s four quadrants and met with the people who lived, worked, and went to school there and collaborated with them to create colorful murals that shared a message of hope and unity for the entire city.

Being Haudenosaunee Then and Now (2018)

Through a partnership with the Rochester Museum and Science Center, first graders embarked on a project to interview people of Haudenosaunee descent and add a new installation to the museum’s Native People’s exhibit sharing ways Haudenosaunee culture continues to thrive and grow today.



The Six Equity Stances offer a way to approach the deepest forms of learning. Students develop deeper learning competencies through project-based learning and cultivate a sense of belonging, identity and place while learning the language of liberation.

The Six Equity Stances of Liberatory Project-Based Learning

Kaleb Rashad, Ed.D.

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The High Tech High Graduate School of Education's Center For Love & Justice co-designs schools for love, justice, and collective liberation, grounded in the beliefs that every child needs to learn how to read their world, resist dominant narratives, and reclaim their ancestral birthright: to be here, to feel and act, to speak truth to power, to love and know thyself, and to have standing in the community. In this piece, HTH GSE Creative Director Kaleb Rashad shares the Six Equity Stances of Liberatory Project-Based Learning as a way to engage in the deepest forms of learning, by doing work that matters and engaging in critical discourse.

The Six Equity Stances of Liberatory Project-Based Learning creates a way to identify, challenge, and critique the social forces that reproduce inequity and oppression. We were inspired by several sources, so let's begin by acknowledging the people who significantly influenced our thinking.

The National Equity Project designed a way to routinely and regularly identify the structures that reproduce oppression: they identified internalized, interpersonal, institutional, and structural lenses to sharpen our ability to understand how racism, sexism, patriarchy, classism, colonialism, etc. works. So I would like to name them first as

an influence on our work.

Naturally, our work stands on the shoulders of other writers, thinkers, and educators. In the same way that bell hooks said that Paulo Friere gave her the language to challenge and critique systems of oppression, bell hooks gave us language focused on themes related to love and justice. Jeff Duncan Andrade, Aaliyah el-Amin, Chris Emdin, Gloria Ladson Billings, and Ibram X. Kendi provided ways for us to see how structural racism and structural inequities exist. Across cultures and institutions, and especially within school systems, we focus on raising critical consciousness so that students learn to critique, challenge, and perhaps make their worlds anew.

Finally, Dr. Greg Carr, professor of Afro-American studies at Howard University, developed a framework for his “African Diaspora Studies” course that requires students to engage in discourse using the following six categories for social analysis: Social Structure, Governance Structure, Ways of Knowing, Systems of Thought, Science and Technology, Movement and Memory, and Cultural Meaning-Making. Then the last, most important category, in my opinion is: “How does this make us more free?” We found this compelling as a way to organize lines of inquiry, dialogue, and collective action.

One of the tricky things about creating a framework is that categories tend to fragmentize whatever you are looking at, and emphasize distinctions rather than connections. To connect this point to equity work, I want to emphasize that the equity stances are not a “checklist,” and the work of liberatory project-based learning is not about checking off “identity work” in order to demonstrate that you’ve “achieved equity.” Rather, our Equity Stances naturally overlap and they are mutually interdependent and we hope they might support folks with a structured, scaffolded way of asking more critical questions.

Place

An invitation to explore, learn, and reconnect to place and the land through contextualized extended experiences.

Place is about where you are from, where your peoples are from, and the social, political, and economic landscape of those places. And it’s about the relationships people of that place have to the natural world and the built environment.

Key questions to ask yourself, your colleagues, and your students:

- Where is the place you feel most connected in your heart, mind and soul?
- How can we inhabit our planet so that it might be here for many

- generations to come?
- How does the land bear witness?

Identity

Explore issues of identity, ancestry, indigeneity and place.

Identity is about asking “Who are my people and where are they from dating back several generations?”, “Who am I?” and “What’s my relationship to others?” In this country, we need to acknowledge that we’re born into an underlying caste system of hierarchy, privilege and exclusion. “White-ness [for example] is an American innovation,” as described by Isabel Wilkerson in her classic *Caste: Origins of Our Discontent*. If you were Irish or English, Hungarian or Polish, or German, in the formative years of this country, whether you wanted to or not (out of survival instincts, more than likely), you shed the European ethnic identity of your foremothers and forefathers for the social safety, economic access, and political solidarity with a group of people called “white.” Exploring identity includes factors like ancestral history, race, class, ethnicity, caste, gender expression, sexual orientation, and others while understanding how they intersect.

Key questions to ask yourself, your colleagues, and your students:

- In what ways have your past neighborhoods and communities shaped who you are?
- What is a unifying identity that includes all of us without suppressing difference?
- In this moment, am I who I want to be?

Dialogue

Engagement in co-generative dialogue and reflection, seeking to understand in a spirit of solidarity.

Critical conversations are not easy. They entail a spirit of humility in which a pair of people, or a group, can collectively commit to understanding one another. Dialogue demands this level of curiosity, empathy, and attentiveness. It is entirely different from debate, in which only one viewpoint can win, or casual discussions over dinner, which are more about maintaining group cohesion than engaging in a shared inquiry and achieving mutual understanding.

Key questions to ask yourself, your colleagues, and your students:

- When have you felt truly heard and understood?
- When are you able to reflect with others in order to co-create opportunities for the future?
- How do you demonstrate “deep understanding” of another person’s point of view?

Belonging

Sourcing and developing one's gifts for the community, critiquing exclusion, and deepening relationships with self, others & place.

Belonging is particularly personal to me because there was a period in my life where I felt like I was losing myself in order to satisfy someone else's idea of who I was supposed to be. When I intentionally decided to reclaim my identity, I began to closely study the history of the American education system and found it hard to ignore the extent to which American education has demanded that students give up their own cultural connections and identities in order to “belong” to a broader, hegemonic, white-dominant culture. Thus, in our conception, “belonging” is not about what we expect people to give up, but how we welcome them—that is, all of who they are—to the community.

Key questions to ask yourself, your colleagues, and your students:

- When have you felt that you were an important part of something bigger than yourself?
- In which spaces do you feel the most seen, heard, and valued?
- When have you felt like your skills and talents were needed and valued in a community?

Democratization

An invitation to explore & learn how systems of exclusion work and how to reclaim freedom and collective power.

Democratization is trying to get at what Dr. Carr, in his Africana Studies framework, calls the “governance structure” of our communities. That is, how do we make decisions that affect all of us? Who is empowered to take part in those decisions, whether officially or unofficially?

In America, we claim to love democracy, but how many of us actually experienced it? If you are a teacher, think honestly about your classroom. To what extent do your students have a sense of collective power together? To what extent or do you engage them in meaningful democratic processes, as opposed to structures designed to lead them to a plan you already set, as the teacher? And if you're a school leader, I invite you to ponder these questions in regard both to the staff and the students at your school.

Key questions to ask yourself, your colleagues, and your students:

- When was a time when you worked with others to make a decision that would affect a larger community?
- Who is in the game? Who is out?
- How might you amplify the voices of the vulnerable and silenced?

Liberation

Explore, unlearn and resist systems of domination while reclaiming and reinhabiting diverse ways of knowing and being.

In the HTH GSE, Dr. Michelle Pledger draws a distinction between what we are trying to get free *from* and what we are trying to get free *to do*. That framing has helped me pose more critical questions about liberation. I hope it's useful to you too.

I've also been informed by indigenous scholars such as Marie Battiste, author of *Decolonizing Education: Nourishing the Learning Spirit*, and Linda Tuhiwai Smith, author of *Decolonizing Methodologies*. These scholars inspired me to think more deeply about Dr. Pledger's distinction: I know that liberation is the aspiration, that is, what we want to be free to do, but what are we trying to get free from? Battiste and Smith frame liberation explicitly as liberation from colonization. Colonization is inextricably linked to assimilation: it demands not just the military subjugation of people, but control over their minds.

What this means is that you can be all about "equity, equity, equity," but if you're ignoring the role of power and assimilation, you're only advancing a colonial perspective of an individual's identity, which demands that they separate themselves from their cultural identity.

Key questions to ask yourself, your colleagues, and your students:

- What does it mean to you to be free, or unfree?
- How would our community be different if we were working towards collective liberation?
- What is a small step towards your own liberation?

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A Community Committed to Deeper Learning

Art: *Lambi Chibambo (Lamb of Lemila)*

Words: *Hayley Murugesan*
High Tech High Graduate School of Education, San Diego, CA

Almost exactly one year into the global pandemic, the deeper learning community gathered virtually on March 23–25, 2021 to share in the challenges and triumphs of the year and emerge from the uncertainty with a commitment to co-create what comes next with students, schools, and communities.

reEngage DL2021 culminated with a keynote by Aisha Bain from Resistance Communications. Aisha weaved storytelling with time travel as she took deeper learners through a journey of reclaiming the multiple truths of the past, visioning for the future, and transforming the present. She also led with a whole lot of love.

From Aisha's keynote, participants gathered in small groups to voice one action step they would take to create a bold and beautiful vision for the future of education. Through synthesis of the individual commitments, six themes emerged that reflect shifts in practice and the individual growth needed to define and design what comes next as a deeper learning community.

The six themes and their definitions were:

Creating Community

Sustain and grow relationships with others to move the work forward and create learning ecosystems.

Systems Change

Dismantle systems of oppression through interrogation with colleagues, while centering wellness and equity.

Teaching Shifts

Create brave spaces to build an inclusive community focused on student voice and choice.

Curriculum Shifts

Culturally responsive curriculum infused with place based and project based learning.

Self Development

Opportunities for reflection (for self and colleagues), root practice in love, lean in and listen.

Restoration

Health and wellness of all educators and students with spaciousness for restorative rest.

The voices of the deeper learning community served as the focal point for a visual artifact designed by Cape Town-based artist Lamb of Lemila. This artifact is an invitation to create and share your commitments with your community and invite them to create commitments with you.

About the Artist

Lambi Chibambo, also known as Lamb of Lemila, is a Cape Town-based multimedia artist. The figures in her work are personified versions of one coming into and embracing oneself spiritually, mentally, physically. The character is identifiable by what resonates with the viewer. Although most of her works are illustrations, she has also created paintings, sculptures, and art installations. She describes her art practice as a continuous unfolding, a never-ending learning process, with each new project she comes across new materials and modes of expression. Her work is a celebration of the rich history of African cosmology and epistemology, combined with personal experiences.

About the Deeper Learning Community's Work

We strive for all students to be prepared for college, career, and civic life, removing the predictability of success and failure that currently correlates with any cultural or social factors.

The Deeper Learning competencies are a set of research-based student outcomes that represent an ambitious vision of the purpose of education. Beyond the “banking” concept of education in which students memorize and recall facts, students in the 21st century must develop content expertise, strengthen relational agency, and be self-directed in their learning. While Deeper Learning exists in pockets in almost any school setting, all students still need opportunities to engage in deep and meaningful work.

Thus, this is our charge: deeper learning, more often, for more students, especially students traditionally marginalized by our institutions.



First-grade teacher Dana Gaertner discusses story structure with a student.

Increase Student Ownership With A Student-Facing Project Map

Dana Gaertner
High Tech Elementary Explorer, San Diego, CA

Every project-based teacher creates a project timeline, but we don't always make the timeline visible to students, which means they don't have a sense of ownership (or even understanding) of the project as a whole. In this interview, Dana Gaertner, a first-grade teacher at High Tech Elementary Explorer, tells Unboxed editor Shira Feifer about a simple method for fostering the shared ownership that comes from shared understanding.

SHIRA FEIFER

What is a student-facing project map?

DANA GAERTNER

A student-facing project map is a timeline of the knowledge, skills, and deliverables that constitute a project. It's a way to help students understand the project as a whole, with all of its moving parts, and connect what they're doing at the lesson level to a broader scope and sequence. It can also be a helpful planning tool, to break the project into smaller, more manageable parts that can make weekly and daily planning less cumbersome.

SF

How is a student-facing project map different from a project handout?

DG

The way I've seen it used, the project handout is more of an overview of the learning outcomes for parents and the community, while the student-facing project map is for students to understand the week-by-week progression of knowledge, skills, and drafts, and how they're connected to the project goals.

SF

What are the essential aspects that a student-facing project map should have?

DG

A student-facing project map should include the big ideas of the project, and make clear how learning unfolds and leads to exhibition. It can include assignments that are key to the project. It can also be helpful to include essential and guiding questions, the exhibition date, field work, mentor texts, and visuals of models or exemplars. Overall it should be aesthetically pleasing, and something students can and want to engage with.

SF

What have you noticed about students' engagement in the project and understanding of the project when you use a student-facing project map?

DG

When I use student-facing project maps, students are able to talk more about the project as a whole, and how what they are working on connects to it. We usually have a lot of deliverables in a project and a student-facing project map helps students to understand why they're doing each piece and how it connects to the broader picture and essential question. During the exhibition it also helps parents and the community to better understand what our learning process looked like.

SF

Where does the project map live?

DG

I have it printed as a large poster near the front of the room so that students can access it. When I'm teaching, I use it to reflect on where we've been and where we're going, so it's important to have it somewhere prominent. There have also been times when we've printed student copies, and they've kept them in project folders and used them to help ensure that they complete important tasks.

SF

So if I am planning a project and I have my big ideas, my essential questions, and a general idea of the timeline I am thinking about, what advice would you give me for starting my project map?

DG

Check out some other student-facing project maps! It gives you different ideas for what you want to include in yours (and inspiration for projects). Make it beautiful! You're creating something to engage students and use as an anchor in understanding the project and the process.

SF

What if the project that you planned changes?

DG

As it does! Projects should change as we reflect on teaching and learning. Some changes may not require an update to the map, but if necessary, you can always find creative ways to edit your project map without having to start over or reprint. Sticky notes are a wonderful tool!

SF

If you had to pick one thing about project maps that you're like, "THIS is why I think everyone should do a project map," what would it be?

DG

I don't know if I can pick on one thing, so I'll pick three:

1. It helps our youngest learners understand why they're doing what they're doing, in a way that they can then articulate to others.
2. It's a way for all students to develop a sense of ownership over the project, and accountability for its deliverables.
3. Planning a three-to-four month project into daily objectives makes my head spin. A student-facing project map helps me plan in smaller units that make more sense, before diving into the day to day planning.

SF

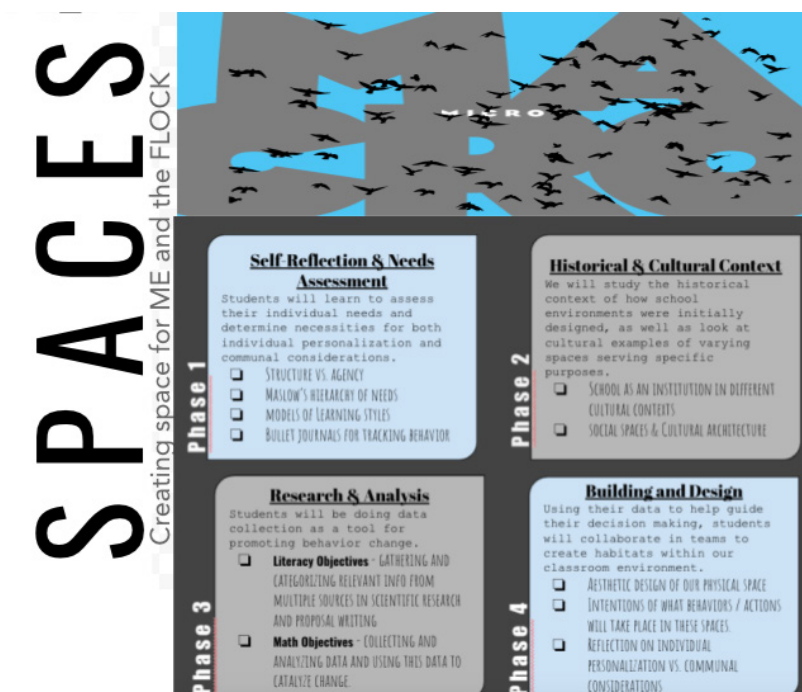
Is there anything I haven't asked you about student-facing project maps that's think is really important?

DG

I think it's really important to share your student-facing project maps with your colleagues across the school (and beyond), because that's how we grow in our practice, and get really good at creating maps in a way that makes sense for kids.

Student-Facing Project Map Gallery

Dana Gaertner
High Tech Elementary Explorer, San Diego, CA



Student-facing Project Map for the Spaces project.

SPARKED by the STARS

Guiding Question: How can we as astronomers create a visual representation of the stars?

Week 1:

- ★ Project Launch- Palomar College Planetarium
- ★ Digital Bin Launch and Expectations
- ★ Digital Bin Exit Ticket 1

Week 2:

- ★ Building Polygons, Measuring Area and Perimeter
- ★ Group Prototypes of Geodesic Dome
- ★ Narratives Through Photo and Video
- ★ Digital Bin Exit Ticket 2

Week 3-4:

- ★ How Constellations Have been Used in the Past
- ★ Begin Constellation Remix Stories
- ★ Create Star Wheel
- ★ Finding and Tracking Constellations
- ★ Digital Bin Exit Ticket 3

Week 5-7:

- ★ Plotting Coordinates on an XY Axis, Begin Night Sky Constellation Visual on the Wall
- ★ Begin Constructing Lifesize Planetarium
- ★ Create Hanging Light Constellation to Curate Remix Story
- ★ Digital Bin Exit Ticket 4

Week 8-9

- ★ Exhibition Planning and Preparation
- ★ Project Reflection 5 Paragraph Response

Exhibition: December 13, 2019

Student-facing Project Map for Sparked by the Stars.

Wired!

Exhibition: Wednesday, June 5th, 2019

☐ Weeks 1 & 2:

- Digital Bin Launch, Evidence Ticket 1 & 2 Due
- Create 2D & 3D Models for Labelling
- Annotate Book Club Text
- Write Informative or Argumentative Text
- Begin Labeling Models

☐ Weeks 3 & 4:

- Research Circuits in the Digital Bin, Evidence Tickets 3 & 4 Due
- Tinker with Snap Circuits to Create a Light
- Draft a Light Circuit
- Write Informative or Argumentative Text

☐ Weeks 5 & 6:

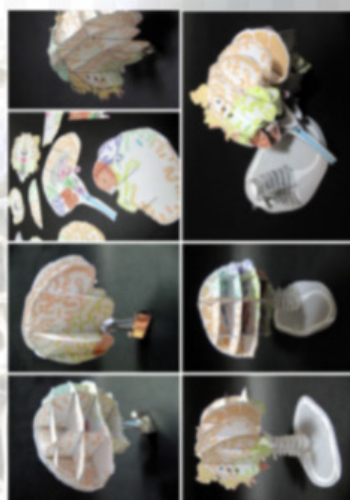
- Determine Podcast Topic
- Organize Evidence that Supports Topic
- Create a System of Light Circuits using LED Stickers
- Create Template for Large Scale Model

☐ Weeks 7 & 8:

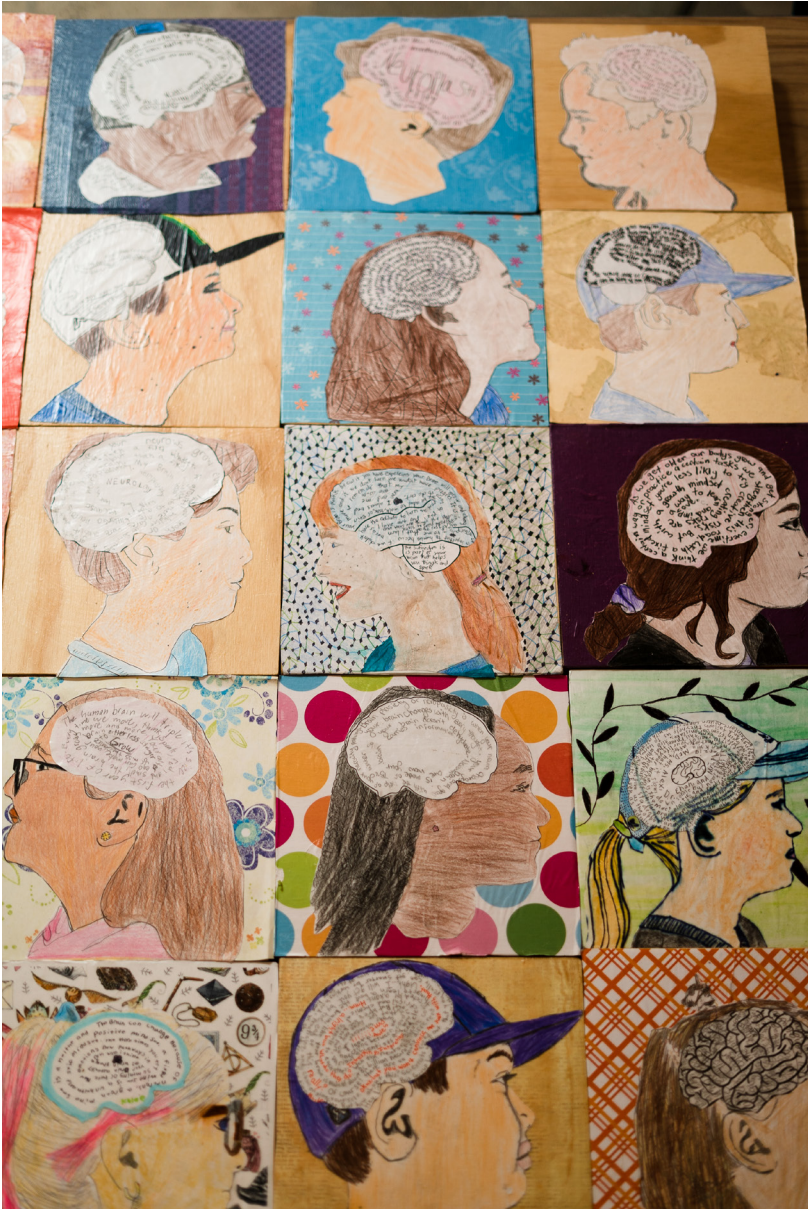
- Build Large Scale Brain
- Add Circuits that Show Synapses
- Write Podcasts Scripts

☐ Weeks 9 & 10:

- Record Podcast
- Prepare Classroom
- Write Elevator Speech
- Exhibition Dress Rehearsal



Student-facing Project Map for Wired!



Project Cards

*Teachers and Students
High Tech High Schools
and other Innovative Schools*

Project Cards provide quick glimpses of inspiring projects designed by teachers and realized in collaboration with students.

Our full collection of Project Cards is available to download for free on our website, hthunboxed.org



VersUS

Jaimee Rojas, Humanities
Jordan Templeton, Math/Science
Nicole Hubbard, Math/Science
Reuben Foat, Makers
Sarah Foat, Inclusion Specialist
Sonya Ramirez, Humanities
High Tech Middle Media Arts

What is a dichotomy? What dichotomies do we see around us? How do maps convey meaning and perspective? These were among the many interdisciplinary questions considered by seventh graders in this project that examined the social and physical landscape of their city, San Diego.

The central idea of this project was to use the city itself as a text, specifically, a three-day, 23-mile journey on foot from the Mexican border to the Cabrillo National Monument very close to the school (where the explorers/conquistadors first landed in California).

Students captured the details of the journey through photography and journaling, later to be synthesized into a book focused on dichotomies that students chose to highlight.

To add to their reflections on the journey, students also interviewed community members and organizations to explore the dichotomies in their lives.

Project Learning Goals

- To develop skills of close observation, documentation, and reflection.
- To learn how universal themes or dichotomies appear locally.
- To develop non-fiction reading and writing skills.
- To learn about ratios, scale representation, area, and solving for unknowns using proportional relationships.
- To learn about and develop skills in cartography, 3D vs. 2D representation, and possible distortion in maps.

Exhibition

The exhibition took place at the San Diego History Museum, where the topographical map was installed and on display for several weeks. On the day of the exhibition, students also displayed their books, and documentation of their process, including the long journey.

This project appears in *Changing the Subject*
by Jean Kluver and Jeff Robin.



Come Play With Us
Patricia Lim, Kindergarten
Stacey Stevenson, Kindergarten
High Tech Elementary Explorer

High Tech Elementary Explorer had a run-down grassy area as a part of its playground, and a real shortage of options for creative outdoor play. Patricia Lim and Stacey Stevenson decided to create an inquiry-based project about the nature of play, in the hopes it could ultimately transform the underused space into a nature playground.

They began their project by asking some open-ended questions: Why do children like to play? How do they like to play? What allows children to be creative, to pretend, to build, to be active?

Stacey and Patricia launched the project with a trip to a nature playground, where their classes played for hours and also reflected on how they played, and how the materials they encountered encouraged them to play. In the following days, when they were back at school, they observed other students playing. Finally, based on their observations and field work, they began a process of re-designing the run-down play area. Children made sketches of their ideas, and gave and received critique from classmates as well as older students and adults in the school. They voted on final ideas for various areas of the playground, which ultimately included a sand house for pretend play, sticks and rocks for building, stumps for balancing, a water wall, a music/sound wall; and a giant tire for climbing.

The final weeks of the project were spent building. Each group also created safety rules for each play area, and wrote how-to books to teach other children how to use the new play area.

Project Learning Goals

This project met many standards for kindergarten learning, including counting, measuring, data collection, observation, reflection, persuasive speaking, drawing a model of a proposed solution, giving and receiving critique, and writing informational how-to manuals. Social and emotional learning goals included collaboration; negotiating over final products; analyzing what makes playtime fun; and understanding and creating rules for play spaces.

This project appears in *Changing the Subject*
by Jean Kluver and Jeff Robin.



Growing Beyond Earth

Meghan White, Biology

Connor Tait, San Diego Teacher Residency School Resident

Kara Quinlan, Environmental Science

High Tech High Chula Vista

NASA's real world problems of growing food in space inspired teachers Meghan White, Connor Tait, and Kara Quinlan to create a project which would combine plant biology concepts and scientific methods with the motivation of an actual challenge—growing food with no natural light, no gravity, and hardly any space. They wanted each of their 11th grade scientists to have the opportunity to solve NASA's challenge regarding improving botanical methods for astronauts on the International Space Station. Students created a plant scientific research proposal and poster to NASA's Growing Beyond Earth Maker Challenge. By participating in professional experiments, students had the opportunity to increase their scientific literacy and practices.

To start, students uncovered their own previous understandings about photosynthesis and botany and created research questions that they wanted to pursue. Each scientist designed their own plant experiment and took independent, control, and plant growth data daily. Each week, teachers modeled and scaffolded the research and scientific writing process step by step for their research proposals and scientific posters. Multiple peer, group, teacher, and professional critiques with rubrics spurred students to revise and improve before they turned in their final product to NASA for exhibition.

Project Learning Goals

- To understand photosynthesis and the constraints of growing in space.
- To understand and practice experimental methods.
- To learn to record, monitor, and analyze data using spreadsheets.
- To develop scientific writing, critique, and editing skills.

Exhibition

Students presented their experiments and posters during a school-wide Winter Exhibition. They also submitted their research posters and proposals to NASA and the Fairchild Botanical Garden's Growing Beyond Earth Research contest. The team was accepted and the students have the honor of participating in NASA's second phase of the challenge.

This project appears in *Changing the Subject*
by Jean Kluver and Jeff Robin.



Ease on Down the Road
Gina Wickstead, Humanities
Mimi Tran, Math/Science
Matt Adams, Humanities
Kat Wu, Math/Science
Shane Duenow, Makers
High Tech Middle Media Arts

Using research and writing skills in humanities, scaling in math, circuitry in science, and engineering in makers, the seventh grade students partnered with different non-profits around San Diego to help spread their messages to the community. Students explored the history of parades and non-fiction texts about parades, scaled blueprints of their float ideas, circuited their lights, and built their parade float. The students partnered with The Animal Pad, The Rescue Dog, Fishes and Loaves, and the Ocean Beach Women's Club to build a parade float that were exhibited in 2018 Ocean Beach Holiday Parade.

Teacher Reflection

Encouraging creativity, being proactive in the community, spreading positivity, and interdisciplinary learning, the students did so much more than build a float. Given leadership positions and smaller subgroups, students collaborated with their peers, used so many tools to build, researched floats and materials, and took on roles pertaining to their passions. In this project, they practiced so many soft and hard skills that resulted in them being a collective and powerful voice. When given a real client and an authentic audience the students were powerful and unstoppable. Students built the float for their non-profit not because they had to but because they wanted to spread an important message to their community.

—*Mimi Tran*

Student Reflection

I think that it has helped me connect with my peers and classmates by learning to know them better. I got to work with people I don't normally hang out with and created something amazing. Something that was hard was scaling to size the model to the actual size, painting multiple layers of paint for the backdrop, and deciding on how different scrap wood could be used to create the size of the backdrop. We had to screw beams to the backdrop as well. I learned how to carefully use resources that I was given and to problem solve with my peers.

—*Jaden Gonzales*

To learn more about this project and others, visit
<http://mimiteaches.weebly.com/ease-on-down-the-road-parade-project.html>



Lakeview
Mele Sato, Math
Phil Estrada, Engineering
High Tech High Media Arts

Kinetic artist Rubin Margolin, who makes wave generating machines, had always fascinated Phil Estrada and Mele Sato. In between other projects, Phil spent two years teaching himself to make gears similar to those in Margolin's sculptures. "I needed time to experience how to make these machines. I needed gears, resources to make prototypes, and exemplars," he said.

After making prototypes and exemplars, Phil realized how much he learned from the process of constructing, modifying, redesigning and creating a new version. He planned for students to go on a similar supported path that culminated in a machine of their own design to translate a circular motion into a wave form.

Students first made a frame and defined a formula for a sine wave to fit that frame. They had to be accurate in manipulating the variables of the frame and wave so that the physical product would match their graphs.

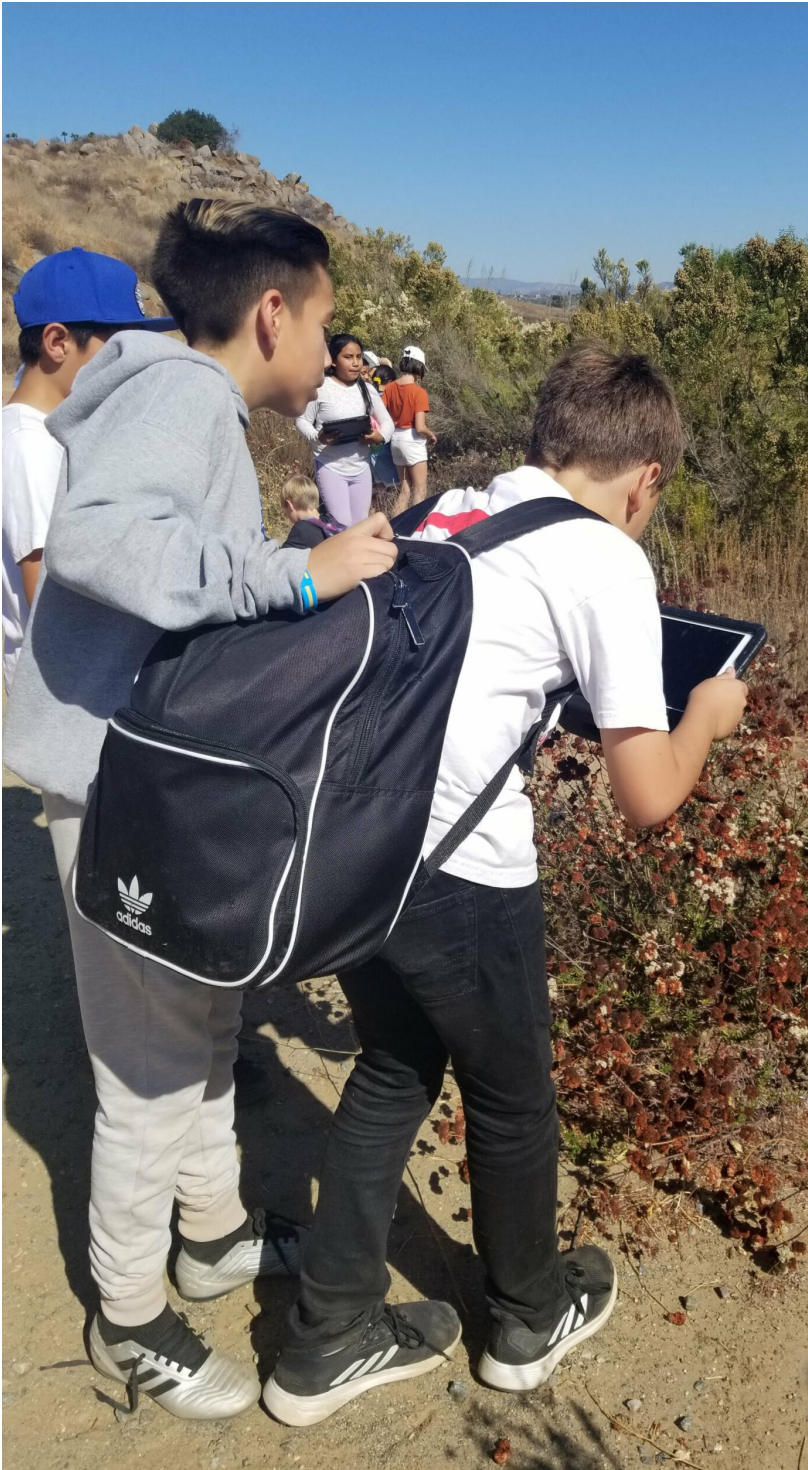
Students copied Phil's exemplar wave machine. They drew detailed pictures and plans based on this model, and then cut out all the parts and assembled it. Once they made a model, students documented what they learned and made plans for their next version.

All student groups modified their original model to make it more interesting to them. They used Richard Serra's verb list, a list of action words that he used in his sculptural practice and Margolin's website as inspiration. Their plans received critique from both teachers and peers. These modified prototypes were not required to be beautiful work.

Project Learning Goals

- To have a deep understanding of gear ratios.
- To value the prototyping process and for students to develop their process for future projects.
- To understand how revolutions per minute (RPMs) are translated into frequency.
- To learn how to use algebraic functions when working with real materials.

This project appears in *Changing the Subject*
by Jean Kluver and Jeff Robin.



Storytellers of the Land

Caitlyn Rogers, Debbie Spellman Smith, Karen Underwood,
Kassidy Brown, Shelley Glenn Lee, Stephanie Roccon
Fifth Grade Interdisciplinary
High Tech Elementary North County

How do humans tell stories about nature? How do scientists use data to tell stories?

In Storytellers of the Land, fifth graders read and wrote origin stories about animals and nature and teamed up with local conservation organizations to analyze thousands of trail camera photos of local wildlife.

In collaboration with a local conservancy and river park, students were able to serve as citizen scientists as they helped land managers and conservation biologists identify and catalog local wildlife through camera trap photo analysis. With the help of rangers and biologists, students were taught field techniques for animal tracking and how data is used to make decisions about land use and animal conservation.

At the same time, students were exploring Pourquoi stories or origin stories that many cultures throughout history have used to explain why things are the way they are, such as “Why the Snake Has No Legs,” or “How the Raccoon Got its Mask.”

To launch the project, fifth graders visited the river park and met the rangers who would be their partners. They learned how to track animals in the field and how data from cameras helps in this process. The rangers explained why it was important to know how the animals were behaving in the park, and how they were being impacted by human activity. They also explored technology used by rangers and scientists, such as GPS markers and the application iNaturalist to identify plants and animals.

Exhibition

Students held an exhibition at school, with staff, volunteers, and board members from the river park and conservancy as well as family members attending. Each team displayed their research on posters and also gave oral presentations. Their Pourquoi stories and books were displayed. Students also created a process display illustrating their learning process and the various stages of their research.

This project appears in *Changing the Subject*
by Jean Kluver and Jeff Robin.



Know Thyself

Chris Olivas, Math/Science
Brittany Perro, Humanities
Joseph Acker, Makerspace
High Tech Middle North County

In this project, students were tasked with discovering who they were in a physical, mental, emotional, and communal sense. They launched into the school year by conducting empathy interviews with one another, playing games, and digging into how to love the uniqueness about themselves. They learned about mathematical patterns like the Golden ratio and how it can be discovered in nature, art, architecture, and even our own bodies. They mastered ratios and proportions by creating their own scaled down version of themselves in the Vitruvian Man art style. They built their own Golden Rectangle Frames in makerspace to house their Vitruvian self portraits. Students also wrote a personal narrative that reflects who they are today through events that have helped shape them. Students culminated their work by hosting a You Are Perfect exhibition where students and families were invited to see their work and learn strategies to find the beauty, positivity, and love in themselves. Students led participants in creating items that were spread around the school to promote self love through self affirmation mirrors, getting to know you games, and a you're perfect box.

Teacher Reflection

This project I have done many times and every time I try to put a new perspective and spin on it. It is a great way to start the year with some really fun and challenging math work. Students love discovering mathematical patterns in nature and themselves. It is also a great way for them to brush up on all their math skills at the start of the year. What made doing this project special this time was really leaning into the idea of students getting to know themselves and loving themselves. They really too to all the classroom circles we did everyone. We did an activity called spotlighting where one student would get showed with appreciations form classmates. This really helped build honesty, confidence, and community in our team.

—Chris Olivas

Student Reflection

I learned that I am perfect no matter what others say. I learned that I'm a really resilient person. I have been through alot and so has everyone in this class but when we open up about our true selves we can all work on bettering ourselves together. I was transformed by this project by becoming more confident, with a reminder that I am perfect. I have become more honest with myself and people around me.

—Stella



Light of Life

Gabrielle Berens, Visual Arts

Jean Catubay, Math/Science

Erin Bower, Humanities

High Tech Middle Chula Vista

The concept of the “meal” is uniquely human. Traditions and practices around food are a form of internalized understanding about the respective cultures we live in and, by extension, can provide a platform to investigate what differentiates human beings from other forms of life. Kids enjoyed getting to use their hands in ways that may be outside of their norm (food prep, cooking) and investigated their own personal histories centered around food traditions. Each student had ample opportunities to share parts of themselves in creative ways (cookbook) and getting to know more about others in our (digital) classroom community. This project heavily focused on using food as text, a form of media accessible for students from all dispositions; everybody’s gotta eat!

Teacher Reflection

This project was a fun way for our students to form rich connections with themselves and one another! In exploring the cultural heritage connected to the different foods in their lives, students developed a profound understanding of self that they were excited to share. By developing their cooking skills, our students also gained confidence around other important life skills such as collaboration, exploring their senses, and patience.

—*Jean Catubay*

Student Reflection

I think that learning about food was fun because it’s something that a lot of people have in common. It was fascinating to learn about different cultures and get to try the cuisine that people in our class enjoy. I was proud of myself for learning some basic cooking skills, which I think will be important in the future. I even got my Food Handler’s Card! This project was also a good opportunity for me to get to know my family a lot better.

—*Bressi R.G.*



A student in a smallology lesson on bacteria shows off the “germs” spread by a typical social interaction

Honors Pathways and Small-ologies: Two Distance Learning Innovations That Deserve To Stay

Elise Bostic, Christina Payne, Zak Beltz, Colleen Stevenson
High Tech High Chula Vista

High Tech High takes an unusual approach to honors courses. In the eleventh and twelfth grades, students have the opportunity to earn honors credit in their “core” academic classes: humanities, biology, and math. Students opt in each semester, and the honors coursework takes place in the same classroom—and typically within the same projects—as the class as a whole. In other words, a student who chooses the honors option for biology stays in the same classroom as everyone else, they just do more complex versions of the work and take on additional responsibilities. This means that High Tech High can offer honors credit (required for admission to some universities) without segregating students by their perceived academic ability.

Colleen Stevenson is an eleventh grade humanities teacher at High Tech High Chula Vista (HTHCV) and an Unboxed editor. Last year, she worked with three biology teachers to figure out how to incorporate honors into online learning. The biology team took the opportunity to reinvent honors in a more inclusive way, offering three pathways for students to choose from. It replicated a college experience, in that students had a chance to not only pick a class that interested them, but also learn from multiple teachers in the same discipline during a single semester (a core part of college education that rarely happens at High Tech High schools due to their team-based schedule).

The honors biology pathways allowed students to develop relationships with more educators at the school. This was particularly notable because no part of school felt more absent during distance learning than relationships.

One year later, the biology team has introduced honors pathways to in-person learning. Yet again, they created a space of powerful collaboration, not only between themselves as teachers, but for junior students across HTHCV. Colleen sat down with the team to learn more.

Here are the teachers Colleen spoke to:

***Elise Bostic** has been teaching Biology and Honors biology for 14 years. Her first nine years were in Arizona at a Title One school and one year at an alternative charter school. She also taught three years in Denver at an alternative school setting that was working on becoming a project-based school. This is her second year here at HTHCV.*

***Christina Payne** is a fifth year teacher. She has taught at both the middle and high school level. This is her third year at HTHCV.*

***Zakary Beltz** has been teaching biology for two years at HTHCV, but has been teaching science, outdoor education, and conservation education with animals for eight years.*

Colleen Stevenson

So, every year the three of you create your Honors Biology classes together. When does the year's collaboration start?

Elise Bostic

Last year, we started thinking about it in May, then set up a couple meetings before the school year started. At the start of the year, we carved out a little bit of time after school. Since then we've met up a couple times to just talk about biology, and to talk about honors.

Zakary Beltz

As a new teacher last year, I basically ran every idea I had past Elise at the beginning. Then I was like, "Wait, there are two other biology teachers at this school!" and suddenly the collaboration just clicked.

Christina Payne

When I was first communicating to Elise and Zak, it was like, “Okay, we have a new team, what is going to be best?” And then we combined everything into one Google Classroom and suddenly had three pathways. Once we had the vision we were just figuring out the logistics of, “So how do we switch? So how do we incorporate this into the schedule?” But once was running, we realized “Oh, this is going well.”

CS

What’s the structure of Honors Biology this year and how have you collaborated to create student voice and choice?

EB

All 153 eleventh grade students are encouraged to sign up for an honors class, and about 118 choose to do so. Those that sign up pick one of three pathways. Pathway one this semester is centered on reading *The Immortal Life of Henrietta Lacks*. Pathway two is centered on reading a new scientific article every week. Finally, pathway three is an independent project.

CP

That first week of honors is a “test week” during which students figure out if they are enjoying their pathway. And if not, they can switch to another pathway up until the end of the week.

ZB

Then we meet with our honors students for 25 minutes during school on Thursdays. In my pathway, because it’s an independent project, most of my communication is done independently via Google Classroom, so the Thursday meeting is just a project check-in. For example, one I’m really enjoying right now involves a student painting two anatomically accurate pictures of a flower, as well as an artist statement that includes information about why she chose certain colors and why painted certain structures. The student has linked me to her research documents where she’s been studying her topic, and she also linked me to her art documents where she’s been making her sketches. But in person, I haven’t communicated with her too much because there’s a lot of students, so what I do instead is I put them in groups. I have an art group, I have a website group, I have a sculpture group, I have a zine group. Zines were really popular this semester.

Then, within their groups, they can offer each other feedback. So what we've been able to do so far is just modeling how to give kind, specific, and helpful feedback.

EB

It makes me feel really good that the majority of our juniors are choosing to engage in biology more deeply through honors. If you're going to increase scientific engagement and scientific literacy and positive feelings towards science, you have to give people good experiences. That's a big part of what we try to do each week.

CS

Has the work students are doing across pathways connected or built off of each other?

EB

Last spring, one of the students on the "independent project" pathway designed a cultural responsiveness audit of the biology curriculum, which identified problems with how I was teaching the pathway on *The Immortal Life of Henrietta Lacks*. The problem was that I was just using the comprehension questions from the publisher for each chapter, and the student said, "These don't spark joy. These are not helpful questions, because they are not centering Henrietta Lacks and her experience."

ZB

That was a great project for the second semester, because we knew the student well. So when she said, "Hey, I want to audit last semester's curriculum because I didn't feel seen, and it was supposed to be targeted to me and it wasn't," we were like, "Yes, we trust you. Great project." It's cool how much freedom they can have with the project. As long as we as teachers can be vulnerable and be willing to listen to our students, then we can see ourselves grow, too.

CS

One structure that I have noticed is the student-created warm-ups or "small-ologies." These are warm-ups at the start of "regular" biology class that all honors students are required to design and lead, regardless of their pathway, and I've seen students lead quick lessons on bacteria, animals, and even the menstrual cycle. Students seem empowered to share this biology knowledge, and students not enrolled in honors have mentioned that it is a structure they really appreciate in class. Can you

tell me more about small-ologies?

ZB

The idea of small-ologies is to have honors students lead a warm-up lesson about a subject they are interested in. For the first four weeks of school, I led warm-ups every day, and after every warm-up, I said, “Here’s an example of a structure that could work in a small-ologies warm-up.” So every class I did about 15 to 20 minutes of a specific warm-up, and then we debriefed it. Honors students have been leading the warm-ups on their own for the past three weeks now. They’ve been getting tighter on their schedules. They’ve been getting more prepared. They’ve been coming up with really cool ideas.

What’s important to me is to make it accessible so that any student feels like they can do it, and I’m giving them responsibility gradually rather than throwing them in at the deep end.

CP

Students on my pathway have already signed up for two dates this semester, and they will lead a small-ology warm-up for the class or activity on that date (they also have the option to lead a small-ology warm-up in a pair. Then I’ll check in with them a couple days prior to them leading the warm-up just to be like, “Hey, what have you put together?” So if it needs some editing or revising, we go over that together. Then after they’ve led the warm-up we go to my office and debrief: “What are some things that they really enjoyed? What are some things to improve on for next time?” Because they’re signed up for two small-ologies, so they’ll get another chance to improve no matter how this one went!

ZB

In my class, they all present in pairs. I told them, “I’m going to pair you with someone random, unless you want to go first. Then you get to pick your partner.” Then I sign them up with a random partner. So they get paired with somebody in class who’s also in honors. This allows them to work with somebody who they might not know that well. Another slight difference in my class is that we debrief the lesson as a class and say what worked, what didn’t work.

CP

I have the class fill out a Google form of celebrations afterwards. That’s been really good because then the presenters see what their peers really

enjoyed about it.

ZB

Yeah, I would love to get more student feedback because I've had some small-ologies that are fun and games, some that are serious. I have students who are very high-achieving in their reading and writing skills but were incredibly nervous to lead the class, and I also have students on the flip side who now have a lot more empathy for me when I try and quiet the class down because they led a fun, rambunctious warm-up, and then they lost control. So there's just so many opportunities to learn with these warm-ups.

CP

What's awesome, too, is there are students who aren't taking honors biology, but because they've seen a couple warm-ups being led by others in the class, they feel empowered to be like, "Hey, can I do this? Can I lead something?"

CS

What advice would you give yourself now looking back? If you were at a new school, new biology teachers around you, what would be one of the first things you did to try and set up this type of collaboration?

CP

As far as advice goes, just trusting in the process of trying something new, like we did with honors. If you have a hiccup or something comes up, then it's something we can work through together. And just building on those relationships because as long as we're openly collaborating, then we can figure it out together, and it'll all work out in some way. I think that's important to teach your students, too, being able to work through an obstacle. Since they see us working through an obstacle together, then that also translates to their lives in the classroom and the way they approach work with their peers.

ZB

My advice is to share your work! When we collaborate and Christina says, "I'll design this assignment this week," now she gets to focus more attention on that one assignment, so that assignment is more thought-out, and I get to just teach it without worrying about making it. So just trusting each other to create content is huge. We all tweak each other's stuff. I'll make a lesson because I have a surge of energy on

a Sunday night, and then I'll share it with everybody, and they'll do it or not, but at least it's there.

EB

My advice is “get to know each other.” We tried to do some fun things together as a team of teachers and just put the relationship first. Early on, Christina did a Zoom with me. So just getting to know each other and asking, “What kind of biology do you like?” We all have different interests, which is really fun, because we complement each other well. So, really, getting to know your team as humans, I think, is really important for collaborating in general and finding similarities. Then, also, leaning on each other when you notice differences.

CS

Thank you all so much! It's been an inspiration to watch the three pathways grow and develop through your collaboration with each other. And I can't tell you how much I have enjoyed seeing the students take ownership of their work through small-ologies!



Erin Bower shows a group of students how to safely clean a cooking station, in preparation for running a pop-up restaurant.

Learning is a Full-Body Sport, So Take Care Of Your Full Self

*Erin Bower & Jean Catubay
High Tech Middle Chula Vista*

In June 2021, middle school math and science teacher Erin Bower left her job at High Tech Middle Chula Vista to study psychology. In this interview, her former teaching partner, humanities teacher (and Unboxed editor) Jean Catubay asks about what led her to leave, and what she's learned about teaching, and herself, since then.

JEAN CATUBAY

We should start getting into who you are, your background in education, and how you got to where you're at.

ERIN BOWER

Okay. Who am I? My name's Erin. I'm a former classroom teacher, but I will never stop being an educator. I've always loved working with kids. My mom is a teacher, and I started babysitting at a young age and then in high school, I was a tutor. A lot of my teachers would tell me, "You would make a great teacher because you're always helping everyone!"

I'm very interested in human development. Before teaching, I worked at a research lab focused on studying autism in infants and toddlers. I was

in charge of coordinating the psychology clinic and volunteer program where we did developmental evaluations on little babies. I earned my credential through the High Tech High District Intern Program and taught math and science at High Tech Middle Chula Vista for four years. Since leaving the classroom, I am now in a master's program for counseling psychology.

2020 was a big wake-up call for me. Halfway through the year, we had to follow stay-at-home orders, and I didn't know if students knew how to take care of themselves. It wasn't on my mind as much before that, because I just assumed it. When you see students in the classroom, you think to yourself, "Oh, they made it here! That must mean they are doing well." But somehow, seeing them in their home environments, seeing the disparities between them made me realize that I was incorrect in assuming that everyone was on a level playing field when they came to the classroom in person.

Where I'm going now, I want to be a therapist. I want to educate people about how to take care of themselves.

JC

I'm hearing a lot of passion for human development. It seems to be a common theme across the different roles you've had in your professional life. It makes me wonder what are the big questions you've been asking yourself lately?

EB

"How do you do this?" That's my biggest question.

JC

Do you mean "this" as in... life?

EB

Life. Life! How do you do this meaningfully and without burning out? What's the secret? How do you live a fulfilling life? That's so important.

I'm always learning. I think it's a full-body sport.

JC

Say more. I'm interested to hear about that.

EB

I guess what I mean by the “sport” part is that life should be fun. It should be playful. There should be goals. But the “full-body” part is what I want to focus on. After I stopped teaching at High Tech Middle Chula Vista, I had to go back to the basic basics.

To be honest, I started to see a therapist on a more regular basis after I stopped teaching in the classroom. I should have been doing it while I was teaching, I was feeling so overwhelmed. Once the buzz of the classroom faded off of me and I relaxed a bit, I was able to work with my therapist through very basic skills. How am I sleeping? Am I getting enough sleep every night? Am I eating enough food every day? Those were the two things that we tackled first.

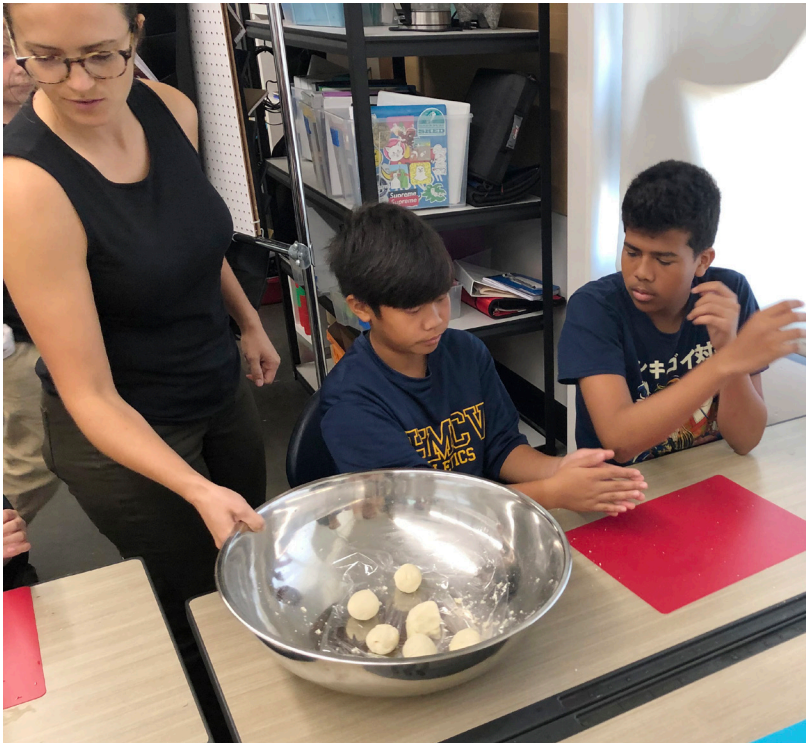
When I first started seeing my therapist, I had severely high levels of anxiety that I wasn’t aware of because I got used to it. Teachers get used to it. I knew that my body was not feeling good when I was teaching, but I didn’t know the extent to which that was not normal. When it came to my teaching experience, everyone was saying, “Your first year’s really hard. Second year it’ll be better.” Then the second year comes and they’re like, “Don’t be so hard on yourself. Just don’t have your expectations so high. You’re doing great!” Then the third and fourth year, that’s when the pandemic broke out. I feel like each year there’s an excuse for why the burnout feels normal. My therapist would ask me basic questions like, “How are you treating your body throughout the day?” It turns out, I wasn’t doing very well. When I was teaching, I wasn’t eating three good meals a day. I would wake up, have coffee, probably grab something at Starbucks real fast. At lunch sometimes I didn’t eat. I was trying to adjust my lesson plan for the last half of the day in response to what happened in the morning. Then when I got home I was feeling exhausted, so I wasn’t eating proper dinners. This might just be my own experience.

JC

It’s fascinating how we can experience very physical reactions to instances that are not physical at all. I would say all teachers are feeling like that right now. What advice would you give?

EB

There are a few things that are coming to mind and it all has to do with outside feedback coming to me. First of all, see a professional if you can. I don’t think we take enough time to research if our insurance will cover it. It feels selfish to take time for ourselves sometimes.



Seventh-grade teacher Erin Bower works with students in their cooking project.

JC

Why is it so important to talk to a professional, versus talking to a friend or taking a personal day?

EB

Your friends might be just as impacted as you are! They might not know that what you're feeling is a red flag. Other people in your life might try to fix you. They might try to say, "Don't feel that way. At least you're not blah, blah, blah." There's that Brene Brown video on empathy that says if anyone starts their sentence off with "At least blah, blah, blah" that's not empathy. That's someone trying to change how you feel.

I think it's important to see a professional, even if it's just to ask, "What is the name for what I'm feeling? Can we do a quick inventory?" Therapists are professionally trained to look at your feelings with an unbiased view.

JC

That makes perfect sense. Why do you think it is so important for educators to prioritize and monitor our mental health?

EB

Imagine a time when you've been around someone who appears anxious, someone whose body language was giving off a feeling of discomfort, unease, or tension. That clenched feeling. If you try to have a conversation with that person, it's really hard to be present with them. If you are that person, and you don't know it because you're not paying attention to your body language, and you try to teach a classroom of 30 teenage students... well...

Kids are masters at reading body language, they're masters at understanding tone, because that's how they're learning to survive in the world. For young people, the social group is so important for their development. If you're giving off this vibe that your mental health is impacted, it's coming off in your body language. I can guarantee it. Imagine yourself as a student in that teacher's class. Are you going to be able to learn in the best way in that classroom? What type of impact would that teacher have on you?

Those nights when you stay up until 2 a.m. creating a lesson plan, you come in the next day carrying all of this pressure. You tell yourself, "I spent so much time on this." The kids pick up on that negative

energy. Ironically, those lesson plans often flop because the kids are wondering, “What is this energy in the room? I do not want to interact with this energy.” Then often the teacher will disclose to the students, “You don’t know how much time I spent on this and you guys aren’t even doing what I want you to do!” Yeah... you brought the energy of staying up till 2 a.m. into the classroom. And they’re sensing that! They might not be aware that they’re sensing it, but they are.

And at a certain point, it’s not even about your job and how impactful you’ll be in the classroom. You’re a human being! Is your job worth you sacrificing your health?

JC

Since you’ve gone back to school, you can answer this from a student or teacher perspective. What were some of the stories that you told yourself about what school needs or should be?

EB

I still have the idea that school needs to be rigorous.

JC

That’s a fun word to unpack. What do you mean by rigorous?

EB

To me, rigor’s not only what the student is doing. It also requires so much feedback from the teacher. Rich feedback. That’s part of rigor too. The student needs to be getting information about how they met their goal. I’m needing that in my grad school program right now. The professors who have felt more rigorous to me are the ones that give me detailed comments and point out the things I am doing well. They’re telling me my work is being seen. I’m thinking, “You’re a professional so I trust your opinion. You’re pointing out specific things.” That makes me feel great. Then there’s the rich critique of my work and identifying how I could grow. The classes that don’t feel so rigorous are the ones where it’s like, maybe I’m still feeling challenged, but I don’t get that feedback and I’m like, “Well, at least I got the points.”

JC

It sounds like there’s a dynamic nature to the student-teacher relationship. It’s not just a one-way channel. Both sides are active. To bring up sports again, the rhythm reminds me of ping pong.

EB

Yeah, and to tie it into what we were talking about earlier, that's the only way I knew that my mental health was in a weird spot. I was getting feedback from people about my mannerisms and behavior. Specifically my partner. He would tell me certain things about my facial expressions. He would tell me I looked really mad, upset, or worried. He would point out the tension in my shoulders. And I had no idea! No idea what I was saying and how I felt. I was telling myself it was normal, or even positive. But my body language was showing otherwise. I wouldn't have noticed those things if he hadn't pointed them out. It's an important part of life to have people around you who will point certain things out, even if it feels uncomfortable in that moment.

JC

That's an interesting connection. Another thing I'm hearing is that there's an element of learning that requires us to mess up.

EB

Yeah, for sure. Hopefully, an assignment that's rigorous will cause you to make mistakes so that you can get that feedback. In my initial classes about therapy, we focused on learning how to reflect. That's a huge part of what we do as mental health professionals. If you were telling me a story about this thing that happened to you, I would repeat back certain elements to you so that you can hear it from another person outside of you. I would say something like, "Well, I'm hearing a lot of sadness in your voice." Sometimes that's all you have to say. It can be a reminder that someone is witnessing that in them, and then they'll feel comfortable to elaborate more. It's the same with students. We point out certain things that stand out to us in their work. It can be really beneficial.

JC

What types of listening techniques would be helpful for teachers to try? What should we try to avoid?

EB

The biggest word that is coming to mind is "fixing" and how damaging that can be. It's tough because a large part of teaching has to do with correction. That's how some people see it. That's the traditional way of seeing it.

JC

I think correction has its place and purpose, though. Right?

EB

My mind is going to a specific example. A kid is exhibiting behaviors that would make me concerned about their wellbeing. My first reaction, in the “before times” would be “How do I fix this? How do I solve this for this student? How do I guide them in understanding a solution?” But that’s robbing them of the opportunity to work through that and problem solve it themselves.

Maybe I have an idealistic utopian view of this, but in my experience, when someone has said, “I’m with you. I’m here with you. I hear you. I see you,” there’s a defense that comes down a little bit and there’s more safety there. When I feel less defensive, that means my fight or flight response is going to tone down a little bit, and maybe I will be better equipped to solve this problem or make a better decision because I’m not in a heightened state. There’s a lot that can be done when a person feels safer in a space. But it takes time. And that’s also kind of the problem. As school teachers, you only have so much time. In the case of this example, you have 29 other students in class. Is it fair to them to spend so much time in the office talking to just this one?

JC

How would you respond to someone who shared the belief that it isn’t a classroom teacher’s place to explore mental health and wellness with students? I feel like it’s a more recent phenomenon, where mental health has entered the cultural conversation. I don’t even think I ever used the words “mental health” before the age of, I don’t know, 25.

EB

I think that’s a great concern that someone would have, especially as a parent from a different generation. I don’t even know if it is necessary to explicitly go over these things with students. In my opinion, educators should be embodying an intentional level of mental wellness when they’re in front of the classroom and, hopefully, incorporate that into the way they live.

Going back to the 2 a.m. lesson plan example if you are stressed out of your mind and you’re giving a lesson on mental health, and you’re like [talks in an audibly stressed tone], “Okay, everyone! Close your eyes! We’re breathing now!” That’s not good. That is not going to work.

You really do have to live it. And that will speak for itself, in the way that you show up in the classroom.

JC

I guess this feels like an appropriate time. I didn't want to ask at the beginning, but I'm wondering, what do you miss about the classroom? Sorry to bring it to the sad place—if it's sad.

EB

It's just different. I miss my coworkers so much. That was such a special place in Chula Vista. I honestly miss the kids the most because they're so funny, whether they're trying to be funny or not.

I always tell the story of, there was a math test we were doing, it might have been a standardized state test. Everyone was focused. It was really quiet in the classroom. I remember watching one kid who was so into it, and then after they answered a question they did a little dance and a dab, and then went right back to their test. That will forever be in my mind as something I can laugh at.

JC

I love this age, too, of middle school, because the ages are so genuine right?

EB

Yes, for better or for worse.

JC

At least you know they're being honest.

EB

Yes, you certainly do.



Sara Kennedy, English Language Learner Coordinator at High Tech High International.

What An English Language Learner Coordinator Does

Sara Kennedy
High Tech High International

Schools are full of adults who aren't classroom teachers, but a classroom teacher can go through their entire career without really understanding what those other adults do every day. How are they helping students? What can they do to help me? What can I do to help them? This is the first in an occasional series of "explorations" into the sometimes mysterious roles beyond the realm of the "classroom teacher." In this exploration, Sara Kennedy will take you into the world of the English Language Learner (ELL) Coordinator.

I taught elementary Spanish for a decade before transitioning to a full-time support role as English Language Learner (ELL) Coordinator at High Tech High International. Though I have my Masters degree in TESOL (Teaching English as a Second Language), until moving to California from the Midwest, most of my English teaching experience was limited to my year in elementary classrooms in Spain through a Fulbright grant. Once in California, as a Spanish teacher working with fairly small populations of students classified as English Language Learners, especially in an area where many of those students are from Spanish-speaking families, I found myself filling my prep periods and evenings with bits and pieces of what is now my full-time role: supporting English Language Learners and their families. Teaching multiple grades and levels of Spanish

meant that free time was in short supply, so it was just the students and families with the most obvious needs for support who were getting direct time and attention. Even dedicating every moment of free time to supporting students, it was frustrating to realize that most were not getting the support they needed. After my Spanish program was cut due to funding, I jumped at the chance to work as an ELL Coordinator full-time at High Tech High schools.

A Note on Terminology

Although the state of California uses the official classification of “English Language Learner” to describe students who have a legal right to a set of state- and federally-mandated supports from their school, High Tech High is one of many organizations that now use the term “Emergent Multilingual Learners” instead of “English Language Learners.” We do so with the understanding that being multilingual is an ongoing process, looks different for each student and family, and is something to be celebrated! Thus, in this piece, I’ll do what I do every day, which is describe myself using my official title of “ELL Coordinator,” and describe the young people I serve as “emergent multilingual learners.”

Shifting our terms we use to describe these students from “English Language Learner” to “Emergent Multilingual Learner” may seem cosmetic, but it cuts to the heart of my role. Unfortunately, many school programs still treat students learning English from a deficit standpoint: they are lacking English proficiency and need that to be corrected. While getting students proficiency in English allows them access to our school curriculum and is empowering in itself, it is also important to recognize multilingualism as an asset and not a deficit. Emphasizing multilingualism (and bilingualism, for that matter) as a student “superpower” is an ongoing area of growth in education, even though speaking more than one language is self-evidently impressive! Some of the ways I have tried to emphasize bilingualism or multilingualism is by advocating for more opportunities to gain proficiency in languages other than English. I have taught a Spanish 3 Honors elective class in the past, particularly tailoring it to my students who are native Spanish speakers. Recently, California has also expanded the options available for students to receive the State Seal of Biliteracy, and I am working on developing the support for as many students as possible to qualify for that seal by graduation. Supporting clubs like our school branch of MEChA (a Chicana student organization) is a way to support identity beyond literacy. These specific options are tailored for our Spanish-speaking students, who make up the majority (but not the entirety) of our multilingual students.

Empowerment is not just for our students, but for their families. Building relationships with families is an important part of my job (as it is for any educator) but in particular I have advocated for increased access for families who speak languages other than English. This means helping staff provide information to non-English speaking parents, and collaborating with administration to plan events that are accessible to all families. In addition to the work within the school, I also support our newly formed English Language Advisory Committee, or ELAC, a family-led committee that offers both information to families and a formal structure for families to give input on school support and programming. I hope that by emphasizing and developing opportunities where multilingualism is an advantage, and by continuing to advocate for more accessibility for all parents, I can continue to empower students.

Who are “Emergent Multilingual Learners”?

California’s official designation of students as “English Language Learners” happens when a student first enrolls in a public school in the state. If the family indicates there is any other language other than English in the home, the student is given an English test. If that initial test shows any deficits in proficiency, students are classified as “English Language Learners” and tested yearly until they have demonstrated proficiency in reading, writing, listening, and speaking.

To go beyond the rather dry language of official designation, there are many reasons that students come to our schools with the classification of “English Language Learner.” Across the United States, just over 10% of students in public schools are classified as English Language Learners. California has the highest percentage, with over 19%. What that classification means varies broadly. Some students are new to US schools, and gaining proficiency in spoken English along with using it for academic subjects. In our border community, some students are technically new to US schools but are fully bilingual and nearly biliterate when they arrive. Some students have not been able to reclassify due to a disability, especially when separating language differences from language-based disabilities can be complicated. Some students do not reclassify quickly due to interruptions in their education, whether that is civil war, displacement, or just a lack of resources in schools for adequate support. Some students have come to us after years of formal education in another language, and can benefit from supporting texts in another language. Others may have only had classes and literacy support in English, and may not even speak any other language at home. All these students might be on my caseload, but need vastly different supports. In addition, there are many students who need support even though they have been “reclassified” as a result of their most recent

test scores. There are also bilingual and multilingual students who may never have been classified as such, due to families indicating that only English is spoken in the home. A wider understanding of literacy and what it means to be an “Emergent Multilingual Learner” means that beyond a label on paperwork, educators may find commonalities in what works to support multilingual students: scaffolds in writing, small group to read and discuss, use of audiobooks to access grade level texts, and—most importantly—a recognition of the richness they and their families bring to our communities.

The Goals and Responsibilities of the ELL Coordinator

When I first interviewed for the role of English Language Learner Coordinator at High Tech High International, it was presented to me as a three-part role: supporting students, supporting families, and supporting staff.

Many of the specifics change day to day, but in general the year can be broken down into a few big-picture themes. The beginning of the year is dedicated to identifying students who need support, planning those supports, and looping in staff and families. For returning students, I focus on making sure teachers know who is in their class and what support they need. This means I collaborate with the education specialists to meet with classroom teachers by grade level about students on both of our caseloads, especially as there are students where there is overlap—students with disabilities who are also emergent multilingual learners. I also spend a lot of time getting to know incoming freshmen. It can take a while for records to arrive, meaning that we don’t always know which students are emergent multilingual learners at the beginning of the year. I try to find that out in the first weeks of school in a variety of ways: spending time in ninth grade classrooms to get to know students, combing through PowerSchool for clues when it comes to home language, calling schools to track down records, and checking in with individual families and students.

Once I have a sense of which students I will be supporting and what they need, I can plan out the necessary supports, whether that is collaborating with education specialists to make sure our academic coaches are in specific classes with specific groups, planning out small-group support for classes or individual projects, scheduling individual check ins with students, or working with individual teachers to plan supports in their classroom. I use any available information during the school year to identify how to adjust that support. Looking at attendance, grades, and getting feedback from teachers, students, and families lets me know where the levels of support need to be adjusted.

Assessment and reclassification has its own arc. The initial English ELPAC test has to be administered within the first 30 days of school, to any students with another language in the home who are attending school for the first time in California. At our high school level, that is normally only a handful of students—much fewer than at the kindergarten level, for example. The Summative ELPAC is administered in the Spring to all students still classified as ELL, to check their proficiency levels. After each round of assessments, I evaluate test scores of my students to see who might be eligible for reclassification, based on the state ELPAC test, another norm referenced test like the MAP, grades, and parent consultation.

One day in the life:

After teaching in a classroom role for over a decade, I have often tried (without much success) to plot this support onto a weekly calendar, like the grids of classes and preps that I’ve always had to guide my planning. The reality is that while this role does involve lots of scheduling, it rarely is the same from day to day or week to week. I have a constantly evolving daily checklist that sometimes is endless but is never boring.

Here is an example of what that might look like:

7:00 a.m. On the way out the door, I raid my bookshelf for a poetry book to loan to one of my seniors. She is feeling overwhelmed by the need to choose a book to read for honors English, and I remember her loving poetry back in ninth grade.

7:30 a.m. I attend one of my students’ IEP meetings to interpret for her mom who does not speak much English. Many of the staff attending understand Spanish, but I also interpret for the ones who do not. During the course of the IEP I also share information about the student’s current English levels and accommodations for the annual ELPAC test.

8:15 a.m. When I get back to my office, a few juniors are there waiting for me. As freshmen they were in my reading group and now they stop by frequently to use my electric kettle to make tea. I ask one student about how his sister is doing in college. Last year she ran into some financial aid roadblocks, and I’m trying to help her younger siblings avoid similar obstacles—and see college as possible for them—as we near the application process.

8:25 a.m. At the beginning of first period, during KBAR (Kick Back and Read) time in ninth grade, I read out loud with a small group while the rest of the class reads silently. After 20 minutes of reading,

I hang out in the classroom to hear the instructions for their project work time.

9:00 a.m. I pull up PowerSchool and scroll through the attendance and grade summary for the students on my caseload. I make a list of students I want to check in with in the next few days, including a junior who has been absent recently and is missing assignments.

9:25 a.m. I call the director of ELL programming across our schools to troubleshoot some issues getting access to last year's test results. It always takes time at the beginning of the school year to get access to the ELPAC results for students coming in from other schools (usually in ninth grade.)

9:35 a.m. During second period I have scheduled time to support one of our ninth grade humanities teachers. The class is reading some articles to prepare for a socratic seminar that will be happening during third period. A small group of students—including several of my emergent multilingual students but sometimes including others who need support—read the article out loud with me in my office, and we take notes together. During break, one of the students stays behind to run through her ideas with me one more time so she feels ready to speak in class.

10:40 a.m. An education specialist stops by to ask if I can help reach out to a Spanish-speaking parent about an IEP meeting, after not getting an email response. We call together and get the IEP scheduled. The junior who I noticed was absent earlier walks by my office and I call him in to check in quickly—he was out sick. I have his spring test results printed out to send home, so I show them to him—he scored high and is ready to reclassify! We call his mom together. I tell her how proud I am of him and he hides a grin inside his hoodie.

11:45 a.m. Some of my students stop by to use my electric kettle at the beginning of lunch, and I check in with one student who has been brainstorming internship ideas with me. I send him the link to a friend's business that I think would be a good fit, then head to the grade level lunch meeting, where we check in about students of concern and plan an upcoming family night.

12:30 p.m. I have family communications to draft, but I also want to check in on some tenth graders. I go upstairs to work in the tenth grade commons, to see if I can find a spot where I won't be interrupting instruction. I draft communications in English and Spanish, and then use a translator for Arabic and Russian. When I see that students are doing independent work, I pop in to check that my student has received access to the audiobook he needs. I see one of my students leave class

to go to the bathroom and don't see him come back for a while, so I take a quick stroll through the building to intercept him and chat on the way back to class.

1:30 p.m. I meet with one of my colleagues to plan out the next few sessions of our College and Career Writing X-Block, an elective class that we are co-teaching. This class is open to all students to help them prepare for college and internships, but is also a place for me to directly support the students on my caseload.

2:40 p.m. During advisory period at the end of the day, I don't have an advisory of my own as I am one of the support staff helping plan for ninth grade advisories—a combination of community building and college readiness activities.

3:30 p.m. This is my day to staff after school tutoring, so I go to help any students who show up with assignments. One of my students who promised to come and work with me doesn't show. I text him and find out he is quarantining. We set up a time the next day to work on some things over Zoom so he can keep up with his honors work.

4:30 p.m. I go back to my office to sort through any emails, texts, and voicemails I have not been able to address during the day. I call a parent of one of my juniors back and talk through some concerns about some of her classes this year. I call two parents to share the good news that their students are ready to be reclassified. I look over the agenda draft for an upcoming ELAC meeting and send some texts about it to some parents I met at a recent parent coffee.

5:30 p.m. I have a non-school meeting via Zoom, which I attend from my office to avoid traffic and so I can finish stuffing envelopes for the annual family letters.

6:00 p.m. I finish the Zoom meeting on the phone so I can leave work and drop off new bus passes at a student's house on the way home, so she does not have to pay to get to school the next day.

6:30 p.m. At home, I briefly log in to check that all students have correctly loaded for MAP testing the next day, and email teachers to remind them and make sure they have the information necessary for testing.

For me, being a full-time staff member responsible for ELL support has meant that even with other roles, I have had the flexibility to adapt to what is needed by administration, teachers, students, and families. I have the schedule flexibility to collaborate with other

staff, communicate and meet with parents who work full-time, plan evening parent meetings and workshops, be available when needed for meetings between monolingual staff and families, schedule testing across grades, and work with small groups as needed. All these things could be distributed among a variety of staff and in between teaching another subject, but the fact that I am doing this full-time has provided cohesiveness and relationships that would be more difficult to achieve otherwise. Especially in a year when a global pandemic shuts down schools and schools need to completely reinvent the way they teach, and when the environment of students' learning experiences are so often beyond our locus of control, I have appreciated this flexibility.

How we can all work together

The ultimate goal is to support all of our students to the best of our ability. We are able to do this when we all work together and draw on each other's expertise and experiences.

As the duties of this role shift with each academic year and group of students, I am constantly trying to better define and replicate what is working and adapt what is not. At the same time, I have tried to make the details of this support quantifiable, since I know schools are constantly trying to juggle staffing, time, and funding in order to support students. It isn't always easy to advocate for support that is sometimes hard to define—like a full-time ELL coordinator! With the ways the pandemic has forced us all to reexamine education, I hope that I can continue to advocate for student-centered roles.

Pro Tips for Classroom Teachers Get to know who your students classified as ELs are at the beginning of the year. You can do this by connecting with support staff, conducting surveys, and through student check-ins). When planning projects and lessons, think about the demands placed on students for speaking, reading, writing, and listening skills. Be proactive about putting scaffolding in place to best support all students. Know who's on your team from case managers, academic coaches, parents, and more. Make it a point to get to know them and draw on each individual's expertise.	Pro Tips for School Leaders Have an ELL coordinator at your school site. This could be a person who has other roles too, but someone who has the capacity and expertise to fulfill the job. Reflect on how information is getting to families. Gather data, explore existing communication systems and adapt and improve them to be sure that all families are able to interact with communications from the school.
Pro Tips for Families Know your rights! Regardless of language, country of origin, disability, income, or citizenship status, every child has the right to a free education with the support they need to access the content.	Pro Tips for Students Get to know your ELL coordinator! This can be a person who is a friend, a confidant, and your biggest cheerleader. Value and treasure your home language as well as English.

Contributors

Zak Beltz teaches biology at High Tech High Chula Vista. He grew up nestled between towering redwoods and the cold waters of the Pacific Ocean in Santa Cruz, CA. He earned a bachelor's degree in Environmental Science from Sonoma State University, and has since worked in various aspects of animal care and education.

Elise Bostic teaches Biology at High Tech High Chula Vista (HTHCV). She began her teaching career in 2008 in Phoenix, Arizona and taught in Denver, Colorado for three years before making her way to San Diego for a position with High Tech High. She is grateful for all of the professional experiences that have lead her to HTHCV and is thrilled to be teaching at a project-based school.

Erin Bower is a former High Tech Middle Chula Vista seventh grade math and science teacher (and academic coach!). She has played, worked and studied in various settings to deepen her understanding of psychology, behavior and how to enhance the human experience. She studied Human Development and Neuroscience at UC San Diego before earning credentials through the District Intern Program at the High Tech High Graduate School of Education. She is currently earning her M.A. in Counseling Psychology and aims to facilitate whole-body healing through somatic and spiritual exploration.

Lambi Chibambo, also known as Lamb of Lemila, is a Cape Town based multimedia artist. The figures in her work are personified versions of one coming into and embracing oneself spiritually, mentally, physically. The character is identifiable by what resonates with the viewer. Although most of her works are illustrations, she has also created paintings, sculptures, and art installations. She describes her art practice as a continuous unfolding, a never-ending learning process, with each new project she comes across new materials and modes of expression. Her work is a celebration of the rich history of African cosmology and epistemology, combined with personal experiences.

Jean Catubay is a seventh grade humanities teacher at High Tech Middle Chula Vista, and an *Unboxed* editor. Originally from the Bay Area, Jean earned her B.A. in English Education from San Francisco State University and M.Ed. in Teaching and Learning from the High Tech High Graduate School of Education. Jean is committed to highlighting

people and experiences that center joy, equity, and inclusivity.

Chris Dolgos is a founding teacher at Genesee Community Charter School (GCCS) in Rochester, NY. He has taught at GCCS for the past 20 years, the last ten as a co-teacher in the sixth-grade classroom. Prior to GCCS, Chris worked in the Rochester City School District and as a museum educator. Passionate about curriculum and elevating teacher impact in the classroom, Chris serves on the Educator Advisory Council for Fund for Teachers' Ramsden Project and has led professional development master classes in the EL Education network. He is the 2016 Klingenstein Teacher Award recipient and serves as a mentor for the Rochester Youth Climate Leaders.

Shira Feifer is a fourth grade teacher at High Tech Elementary Explorer and an *Unboxed* editor. She is driven by creating an engaged and student-centered learning experience for her students and sharing ideas for good teaching among the adult learning community. Specifically, Shira is passionate about inclusion and is currently working towards her Special Education credential through the High Tech High Teacher Center. She holds a Bachelors in Gender and Feminist Studies from Pitzer College in Claremont, California and a Masters of Education in Curriculum and Instruction from University of San Diego.

Dana Gaertner is a first grade teacher at High Tech Elementary Explorer. She began her career in the The New Teacher Project, then worked on a team of instructional superintendents in Denver Public Schools as a School Improvement Partner. In addition to teaching, Dana has a micro farm in Escondido where she grows food for San Diego Co-Harvest, which helps people facing food insecurity.

Sara Kennedy is the English Language Learner coordinator at High Tech High International. Sara grew up in a very big family in a very small town in Michigan, and was homeschooled from kindergarten to twelfth grade. After graduating from Eastern Michigan University (with a B.A. in Spanish Education and a M.A. in Teaching English as a Second Language), she worked with students of all ages from kindergarten through college: tutoring undergraduates, teaching K-8 Spanish in Detroit, teaching English in Spain through a Fulbright grant, and teaching elementary and middle school Spanish in San Diego.

Hayley Murugesan is the Director of Student Affairs at the High Tech High Graduate School of Education where she leads institutional development efforts and strives to optimize operations of a thriving learning ecosystem. Her career in K-12 education spans charter and district schools from San Francisco to Boston to Budapest before joining the HTH team in 2009. As a teacher, Hayley co-designed projects with

students to strengthen relational agency and center student voice in the classroom. In teaching age levels from pre-K through high school, Hayley found a soft spot for both three year olds and seventh graders and noticed surprising similarities between the classrooms. She is relentless in her pursuit of learning and is inspired by her badass colleagues who are pushing the boundaries of what education can look like. After hours, Hayley can be found having a dance party with her kids or traveling the globe on a family adventure.

Christina Payne teaches biology at High Tech High Chula Vista. She studied biology and chemistry at San Diego State University, then finished her teaching credential while working in a cardiovascular research lab.

Kaleb Rashad is the Co-Founder & Creative Director at the Center for Love & Justice at the High Tech High Graduate School of Education. He works with leaders around the world to create new schools and redesign existing schools focused on advancing equity through anti-racist project-based learning. Prior to this, Kaleb served as the Director of the Gary and Jerri-Ann Jacobs High Tech High. Before High Tech High, Kaleb worked as a principal and teacher in more traditional settings.

Colleen Stevenson teaches eleventh grade humanities at High Tech High Chula Vista. She's a San Diego native who graduated from Chapman University with a degree in Creative Writing. She worked in politics across San Diego, Los Angeles and Washington, D.C., doing political communication and campaign **finance investigation**.

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