

HOW DID THAT WORK?

GROUP PROJECTS,
SCIENCE LABS,
AND FINE ARTS
DURING HYBRID
LEARNING





When she first heard the plan for HRS Blend—our hybrid learning model—4th grade teacher Sue Moon was daunted. “So many thoughts popped into my mind,” she says. “It is impossible to teach effectively to students at home and in person. This is going to be a nightmare.” To stay grounded, she kept a guiding phrase in mind: “This is a journey.”

Teaching to students in the classroom and on the Zoom screen is a huge challenge. “The teacher’s job is to keep all students engaged in

learning,” says Lower School Head Lea Van Ness. “This year, they’ve worked twice as hard to keep those in front of them and those on Zoom engaged. It’s extraordinarily difficult.”

For Sue, it took a few months to get comfortable with her hybrid classroom. Early difficulties included “frenzy around Zoom links not working, not knowing where to look, and lessons that felt clunky.” She soon learned what worked best for her and her students: “Pairing at-home learners with in-person learners for projects gave opportunities for everyone to feel included.”

In the Upper School, Dr. Jen Brakemen found success with a similar, paired model. At the beginning of the year, during distance learning, she designed bio labs that used materials students already had at home. “They made sour-dough starters and learned to measure aerobic respiration,” she says. For her molecular genetics class, which is very hands-on, she found virtual simulations. “A lab we do, early on, is gel electropho-

resis, where students put DNA into a Jell-O-like substance and the DNA gets spread out based on size.” In the simulation, Dr. Brakemen explains, students could see gloved hands, click on the pipette, dial the pipette to the right volume, and so on. Though it wasn’t ideal, the simulation allowed her students to understand “the order of the procedure.”

The Middle and Upper Schools split students into two cohorts in December 2020, which allowed us to hold safe, small classes with half of our students on campus at a time. Dr. Brakemen found this setup conducive to an engaging biology lab and paired each in-person student with a Zoom classmate. “Bio and AP Bio both run a three-week butterfly lab. In hybrid learning, the in-person partner does the hands-on work, while the partner at home manipulates the data.” Because the cohorts alternated weeks on campus, all students were able to get lab experience.

The paired approach didn’t make sense for Chris Kinney’s engineering

class, however, which he describes as his “most challenging class to shift into distance learning.” Engineering is a collaborative, hands-on course that, in the past, has required students to pair up and share tools. “There were a couple of labs that couldn’t happen due to safety, like our soldering lab, or due to public health restrictions, like our final project, which relies on a lot of shared tool use,” he says.

“So I asked myself, what projects would be safe to do at home, and can I send home the necessary equipment?”

Thanks to the generosity of our Annual Fund donors, Chris was able to create individual “lab bags” for each of his students with “an assortment of tools, which will be returned to School at the end of the year, plus a variety of consumable supplies.” This at-home, individualized approach allowed the engineering students to “get hands on and immerse themselves in a variety of labs across engineering disciplines, from the kit car assembly to a CAD LEGO project to our electrical engineering Breadboard lab.” Although Chris describes the situation as “not ideal,” he thinks that in some ways, his students worked harder on their labs, “as they were all entirely solo labs, whereas in prior years almost every lab was a partner lab.”

Another department that had to dramatically rethink their curriculum was Fine Arts. “Even the simplest theatre games demand that the participants look at each other, listen, and react. This is exceptionally hard to do on Zoom,” says Kathleen Ray, Co-Department Chair. She credits her students’ resilience with the success of her drama classes. “We adapted. We moved to playwriting, criticism, and design.”

Dr. Phillip Harris, our Vocal Music Director, co-teaches musical theater classes with Kathleen Ray and echoes the difficulty of teaching the performing arts online. “Group virtual music instruction does not work, as Zoom lags and only picks up the dominant sound,” says Dr. Phillip Harris, our Vocal Music Director. “The one very positive aspect about this time is that we have been able to work on the basics and fundamentals of music, which have been so lacking in the fast-paced nature of trying to present something to an audience.”

Now back in the classroom, although masked and at a safe distance, teachers have witnessed important changes in their students. “They now understand the value of being together, of looking at one another, of listening,” says Kathleen Ray. Dr. Brakeman echoes the sentiment, remarking how happy the seniors were to listen to a recent molecular genetics lecture, asking questions and taking furious notes.

This pandemic has changed us all—in ways we don’t yet fully understand. Yet we remain grateful to our teachers and staff, who met each challenge with kindness and care. “The varied situations I’ve had to confront over the last year have caused me to practice new forms of flexibility and grace,” says Dr. Jacqueline Spivey, who teaches Upper School chemistry. “Trying to anticipate and manage the needs of the various constituents in my life has pushed me to, and sometimes over, my growth edge. But I know that this edge possesses fertile soil for imagination and possibility.”

Thank you to our community, for showing us just how much is possible throughout this difficult, ever-changing year.

