



Diane is a master teacher. Diane is a firm believer in not only teaching content, but also teaching skills (SEPs) and using big picture ideas (CCCs) to help students see the connections between concepts and disciplines. She excels in developing hands-on activities that challenge students to assume the role of scientist. Diane is also a big proponent of collaborative learning. She works with her students early on in the year on how to be a good partner, how to function as a group, and what to do when students don't agree. These are life skills that Diane imparts throughout her classes.

Back in 2016, Diane developed a Biotechnology career pathway. Diane insisted that any student having Biology and Chemistry should be allowed to take Biotechnology 1. She did not want this to be a pathway exclusive to only the best and brightest, as she thought any interested student could gain practical, hands-on experience in these courses. Diane set out to make these courses as lab-based as possible and has worked to outfit her classroom to mimic the set up one would see in a biotechnology lab. She even worked with a vendor to provide students with lab coats with the pathway logo and their individual names on them! Assessments are mostly lab practicals where students demonstrate their technical proficiency, collect and analyze data, and draw conclusions based on their analysis. In Biotechnology 1, students prepare to take the National Occupational Competency Testing Institute's Biotechnology assessment. To be successful, students must pass both a 199 question multiple choice exam and a 6-station skills assessment. To date, Diane's students have a 100% pass rate. Even so, after the exam each year, Diane pours over the data in order to make curricular adjustments to better prepare her students.

Diane seeks out Professional Development. Between 2020 and 2022, Diane applied for and received a fellowship to attend the Biotechnology Leadership Institute hosted by InnovATE Bio and NSF. She also attended a four-year set of courses on genome engineering through the Milwaukee School of Engineering's Center for Biomolecular Modeling. Through her work, she was chosen for the model teacher program, was appointed to the teacher advisory board, and developed curricular units on Biotechnology, Adaptive Immunity, and CRISPR using their 3D molecular design modeling kits. She has since presented her work at the NJ Science Convention and at the NSTA Convention in Los Angeles. During the pandemic, we started using Labster as an online lab simulation platform. Diane jumped in head first and attended PD workshops. Labster asked her to present the positive effects of virtual labs at the *Science Online: Connected* conference and wrote this up as a case study. In 2021, Labster named Diane Teacher of the Year. Additionally, Diane has attended the Algae Technology Educational Consortium (ATEC) annual conferences the last two years and has worked with them to restructure NSF and US Department of Energy funded curriculum. She has since been named to ATEC's teacher advisory board. Diane has turnkeyed what she has learned by offering multiple workshops to her colleagues here at Livingston High School as well as teachers from neighboring districts. Finally, Diane is our nominee for the Presidential Award for Excellence in Math and Science Teaching for the 2024-2025 school year.

Beyond her classroom achievements, Diane is a pillar of our school community. Whether mentoring new teachers, building curricula, advising clubs, or simply offering a helping hand, their dedication is unwavering.