

**WENDY TORO**

“Futurelab+ lessons have helped enhance my school’s curriculum to give the students a better, more hands-on learning environment.”

Wendy Toro teaches grades 9–12 in Chemistry, Biology, and Medical Chemistry at the Artesia High School in Lakewood, California. She is passionate about inspiring students to get excited about the field of science—especially students of color, who are underrepresented in STEM: “We need more representation in the science community. This is what led me to wanting to teach. I felt that I would be able to reach students in the classroom and motivate them to pursue science. This is why I actively seek out opportunities to get students excited and interested in science through classroom experiments.”

Launching Futurelab+ with Hands-on Labs

2022–23 will be Wendy’s first year using the Futurelab+ curriculum with her Honors Medical Chemistry students. This year-long course is taken by students who are interested in working in labs, the medical field, and/or have interest in exploring a career in biotechnology. With this in mind, Wendy has found a way to enhance

her school’s curriculum with the Futurelab+ lessons. She believes the addition of these lessons will excite her students through hands-on lab work and prepare them for more advanced coursework and future careers in biotechnology. As for Wendy herself, she has found being a part of the Futurelab+ community to be very positive and enriching, further resourcing her abilities to deliver the quality education her students deserve.

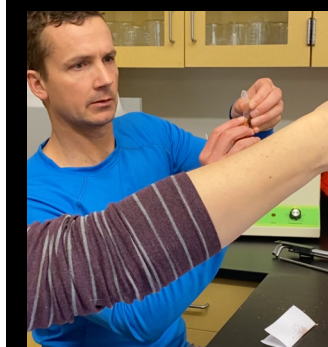
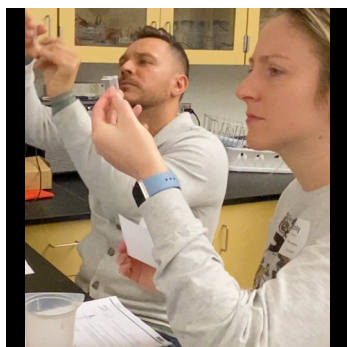
Biotechnology Connected to the Real World

Of all the materials offered, Wendy is especially excited to use the Futurelab+ curriculum for its labs. For her first year with the material, she plans to do the *Diagnosing Diabetes* lab. She chose this lab specifically because it coincides with a unit she plans to teach in January, and is an exciting opportunity for students to see their studies in action. “This unit involves a lot of math that is used in biotech. These math skills tie in with the Diagnosing Diabetes lab because by the end of the class unit, they will be able to

perform dimensional analysis and scientific notation. By performing this lab at the end of the unit, they’ll be able to connect the mathematical skills learned in class to real life skills used in the field of biotechnology.”

The addition of the lab this year is a great change of pace for Wendy’s students, who in previous years, were learning these mathematical skills through theory-based lesson plans, which is much less exciting. The Diagnosing Diabetes lab demonstrates the theory in practice for her students, and because the lessons are more hands-on, their real world relevance is much clearer. Wendy states, “It’s important for me to have this lab for them because now they’re able to have a real-life connection to why these math skills are important—for example, knowing how to convert milligrams to grams when giving medicine for a patient; certain lab techniques are important skills needed to diagnose patients. I am so excited to do this lab with my students!”

Continued



Futurelab+ teachers practicing a biotech lab with BABEC during a hands-on workshop.

A Supportive Futurelab+ Community

Wendy jumped at the chance to [apply to Futurelab+](#) after reading about the program in the California Academy of Sciences Newsletter and has had a positive experience thus far with the supports and community. For example, the workshop series provided through the Futurelab+ community has supported Wendy's preparations for the Diagnosing Diabetes lab, providing her with tips for helping students maximize their lab experience. She notes, "There is a lot of prepping behind the scenes to prepare the kids for labs. The teacher leading the workshop told us of things that we need to keep in mind—that lab skills are low because of the pandemic, and that for some students, this will be their first lab in high school."

As a part of the Futurelab+ community, Wendy also attended the Summer Institute where she had an opportunity to share ideas and build community with other science teachers. Wendy's positive experience with the Futurelab+ community has also made its way into

her classroom, drumming up students' excitement and anticipation for the lab they've been preparing for: "I shared a group photo from my summer cohort, sharing with my students: 'I spent my summer doing this in San Francisco for you guys!' I pumped them up for the new biotechnology lessons to expect this year in Medical Chemistry and they got excited too. They're counting down the weeks to when we get to do the diagnoses [lab]. Saying things like, 'Oh, I can't wait! This is why I signed up for this course!' They really can't wait to do it."

Wendy will be doing the lab with her students for the first time in early 2023, and she anticipates that it will be a huge hit — enriching curious minds while also developing skills for future coursework and careers. "I think once I give them the lab, it will validate students' decisions in doing biotech as a career or point their interest in a different field. Whether 'this is exactly what I want' or 'maybe not so much what I thought or had in mind,' they'll have at least put some thought to this early on in high school versus later in college."

Teacher Information

Experience	4 years in the classroom
Grades	9, 10, 11, 12
Subjects	Chemistry, Biology, Medical Chemistry

School Information*

Name	Artesia High School
City	Lakewood, California
Enrollment	1,383
Title 1	Yes

Key Student Demographics*

Ethnicity	76% Hispanic or Latino
Free Lunch (FRL)	84%
English Learners	25%

* Based on 2021-22 data: <http://www.ed-data.org/school/Los-Angeles/ABC-Unified/Artesia-High>

Apply Today!

2023/24 school year program begins with the Summer Institute, June 19-23, 2023

For more about Futurelab+ and the Biotech Summer Institute, go to <https://www.igniteducation.org/futurelabplus/>

For questions, contact Emily at edilger@igniteducation.org