Pre-AP Strategies in Science: Inquiry-Based Labs & AP Biology: Transitioning to Inquiry-Based Labs

Description:
This workshop will illustrate the practical differences between traditional and inquiry-based labs, and help participants modify their own labs to include more inquiry-based strategies. Inquiry-based labs allow students to engage in science practices that require them to think and act like scientists. The focus in AP Biology is shifting from content coverage — breadth — toward enduring understandings and scientific reasoning skills — depth. This workshop will provide teachers with a means to understand inquiry and its place in the classroom in both pre-AP science and AP Biology classrooms. Participants will analyze how traditional labs differ from inquiry-based labs and investigate a system that they can use to modify traditional, "cookbook" labs to make them inquiry-based. Examples of traditional labs that have been transformed into inquiry-based labs will be presented. Participants are invited to bring examples of their own traditional labs which they would like to make more inquiry-based. In addition, participants will have an opportunity to plan how they will transition their curricula to focus on inquiry. Participants will leave this workshop with the ability to confidently create inquiry-based labs that they can immediately use in their classrooms.

Presenter:
Mary Wuerth teaches AP Biology and Integrated Science at Tamalpais High School in Mill Valley, CA. Mary was awarded the Presidential Award for Excellence in Math and Science Teaching in the United States. She is a faculty consultant for the College Board, and has served as an AP Reader and an AP Table Leader for the AP Biology exam. Mary has taught AP Biology for 17 years and Integrated Science for 20 years. As a board member for the Bay Area Biotechnology Education Consortium, Mary trained teachers to implement molecular biology labs in their classrooms. She was selected to be one of 25 Lead Teachers for WGBH-TV’s Evolution Project and was awarded a RadioShack National Teacher Award for the use of technology in the classroom. She has been a mentor teacher for her district, and was the life science subject matter expert for student teachers in the education program at Dominican College. Mary earned her Bachelor’s degree in Biochemistry from UCLA, and did neurobiology research at UCLA before beginning her teaching career. Mary has done graduate work in cell and molecular biology at San Francisco State University.