



Science Learning in the Virtual Classroom

NCSTA presents a Professional Development

3-Part Series for Middle School and High School Teachers

First of Two Webinars and One Townhall Meeting

October 28, 2020, 5:00 pm to 6:30pm

FREE for NCSTA Members

\$30 for non-members includes registration and a year's membership to NCSTA

Click [HERE](#) to register TODAY! **Select Middle & High Virtual Sessions.**

Keynote Presenter

Test it Out! Digital Assessment Tools for Teachers

Marcus Pate, South Central High School, Pitt County and PCS Virtual Academy

Breakout Sessions – Choose One

Science/STEM PBL for Virtual Middle School Classrooms

Kerrie Lalli, Walter G. Byers K-8 School, Mecklenburg Co.

The Virtual Science/STEM Middle School Classroom

Tiffany Carter, Community House Middle School, Mecklenburg Co.

The Virtual Earth/Environmental Science Classroom

Mark Case, Southern Guilford High School, Guilford Co.

The Virtual Physics/Chemistry Classroom

Coleman Bailey, Avery County Virtual High School, Avery Co.

The Virtual Biology Classroom

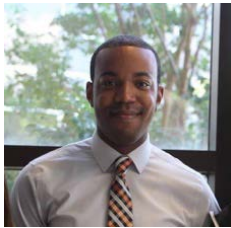
Tim Guilfoyle, Phillip O. Berry Technology Academy High School, Mecklenburg Co.

You could earn up to **1 CEU** by participating in our Webinars, Townhall meetings, and submitting TWO best science lessons that could be used in a virtual classroom to our resources bank that will be shared with all participants! More details coming!



Session Descriptions

Keynote Speaker Information



Marcus Pate, South Central High School, Pitt County and PCS Virtual Academy

Presentation: Test it Out! Digital Assessment Tools for Teachers

Description: Tired of the same old test and quizzes? Come test out something new! Digital formative assessment tools are a perfect way to measure a student's performance and engagement before, during, and throughout the instructional process whether online or in person. In this session you will diversify your digital assessment tool belt with assessment tools you can use in your classroom in person or online!

Bio: Marcus Pate is a high school science teacher and department chair at South Central High School in Pitt County, North Carolina. He is from Stantonsburg, North Carolina and attended East Carolina University where he obtained his undergraduate degree in Science Education with an Earth Science concentration. He recently earned his master's degree in AIG Education & Curriculum & Instruction from the University of North Carolina Wilmington. Marcus is in his eighth-year teaching Earth/Environmental Science, AP Environmental Science, and Marine Science and his 7th year teaching online classes with Pitt County Schools Virtual Academy. He was awarded in 2015 the NCSTA District 1 Outstanding High School Teaching Award. Aside from teaching, Marcus enjoys spending time with his family, trying new recipes, and traveling.

Breakout Speakers Information



Kerrie Lalli, Walter G. Byers K-8 School, Mecklenburg Co.

Presentation: Problem Based Learning in the Remote Teaching World

Description: Problem Based Learning engages learners by promoting an inquiry-based model for instruction that puts students in control of their learning. But how do you implement PBLs when you're working with students asynchronously or over videoconferencing? See examples of how to take problem based PBLs from Wake Forest's Center of Excellence for Research, Teaching and Learning and adapt them for learning in an online space.

Bio: Kerrie Lalli has been teaching middle school science and STEM lab serving all grade levels kindergarten through 8th grade at Walter G. Byers School in Charlotte since 2014. Previously she taught 2nd, 3rd, and 5th grades as the general education teacher in an inclusion setting in Maryland. She was a 2016-2018 NSCLA Fellow and has presented at regional and national conferences on a variety of science education topics, including building vocabulary, interactive notebooking, hands-on learning, and using epidemiology to teach problem solving. Kerrie was a finalist for Maryland Teacher of the Year in 2012, Teacher of the Year for the 2019-2020 school at Byers, a Piedmont Natural Gas STEM Superstar, and is a National Geographic Certified Educator. Currently Kerri is working toward her STEM Leadership Certificate through the NASA Endeavor program. She is a member of NSCLA, NCSTA, NSTA, and the Environmental Educators of North Carolina.



Tiffany Carter, Community House Middle School, Mecklenburg Co.

Presentation: The Virtual Science/STEM Middle School Classroom

Description: Never fear, virtual science resources are here! Have you been racking your brain trying to figure out how to include virtual labs, discrepant events, and project-based learning into your remote instruction? If so, look no further. This professional development session will introduce multiple learning management platforms that will increase engagement, allow students to inquire about the natural world, and encourage collaboration among students. We will discuss best practices to address students' misconceptions and share resources to deliver high-quality science instruction efficiently and effectively in the virtual environment.

Bio: Tiffany Carter is a seventh-grade science teacher at Community House Middle School in Charlotte, North Carolina. She has been teaching for five years and was recognized as Charlotte Mecklenburg School's Southwest Learning Community Teacher of the Year during the 2019-2020 school year. She was also awarded the Charlotte Area Science Network Excellence in Education Award from the University of North Carolina at Charlotte in 2019. Tiffany is passionate about science and technology. She organizes and facilitates her school's optional science and engineering fair and recruits upwards of 200 student researchers each year. Her students have gone on to win regional and state competitions and have been recognized for their exemplary research in science, technology, engineering, and math. Tiffany also writes literacy seminars to engage students in the process of thoughtful analysis and academic discourse rooted in scientific texts specifically designed for the middle school classroom. Tiffany graduated from Appalachian State University with a bachelor's degree in Middle Grades Science education and is pursuing her Masters of School Administration and National Board for Professional Teaching Standards certification in Young Adolescent Science Instruction.



Mark Case, Southern Guilford High School, Guilford Co.

Presentation: The Virtual Earth/Environmental Classroom

Description: Mark will share virtual simulations every earth science student can successfully complete while learning remotely from home. He will share how to predict an outcome and conduct the experiment virtually as well as collect, summarize, evaluate data and then submit its findings! Many online activities and virtual labs will be shared.

Bio: Mark Case has worked in non-traditional environmental education for the first 20 career years. Mark entered the classroom in 2007 to make a longer, deeper impact with at risk students. Some of Mark's accomplishments are Past President NCSTA, NCSLA Fellow Alumni and currently serves on Fellows Committee, He is the current NSELA District C Director (Southeast USA) and a grandpa to three lovely children and a fourth one on the way!



Coleman Bailey, Avery County Virtual High School, Avery Co.

Presentation: The Virtual Physics/Chemistry Classroom

Description: Come learn about virtual simulations and interactive online labs that every science student can do! Coleman will share how to incorporate modeling techniques and his best practices on tried and true pedagogy techniques used in his virtual classroom. These resources will be a valuable tool to engage and create excitement in the classroom.

Bio: Coleman is a graduate from East Carolina with a BS in Physics and Science Education and completed his M.A.Ed. in Science Education. He is completing his Doctorate in Education Leadership and Policy Analysis. His career has carried him from small 1A rural high school in Martin County where he was the science department to 4 A high schools in Pitt County. After the last nine years teaching science at Avery County High School where he was just recognized at the 2020 NC Science and Math Center Outstanding 9-16 STEM Educator, he has taken the reins of the newly formed Avery Virtual Academy and serves as the Director of Alternative and Virtual Education. Coleman is the Director of the Northwest Regional Science Fair and the North Carolina Student Academy of Science and a lead teacher in the AEOP-STEM workshops through UNCC.

In 2016 he was awarded the Nancy Wynne High School Distinguished Service Award in Science Education, he was the National Space Camp Teacher of the Year in 2006, two-time regional teacher of the year, three-time LEA teacher of the year and four-time schoolteacher of the year. Besides these awards he really enjoys the accomplishments of his science students as they take top honors in State and International Competitions.



Tim Guilfoyle, Phillip O. Berry Technology Academy High School, Mecklenburg Co.

Presentation: The Virtual Biology Classroom

Description: This session will provide lessons and activities using HHMI BioInteractive materials. HHMI, Howard Hughes Medical Institute BioInteractive, is a nationally recognized program that uses a variety of classroom resources based on peer-reviewed science. From data-rich activities and case studies to high-quality videos and interactive media, our resources are designed to connect students to big ideas in biology, promote engagement with science practices, and instill awe and wonder about the living world. Tim will share how these labs can be done virtually using google slides and google forms.

Bio: Tim Guilfoyle is a NBCT science instructor with 28 years of experience who currently teaches AP Biology and Microbiology at Phillip O. Berry Academy in Charlotte, North Carolina. He is actively involved with BioInteractive as a Teacher Ambassador, AEOP (Army Educational Outreach Program), NCSTEM Research Academy, JSHS (Junior Science and Humanities Symposium), NCSAS (North Carolina Student Academy of Sciences), and serve as the District 6 Director for NCSTA.