

Grade Level	Presenter(s)	Title & Description	Location	Session
K - 5	Chrissy Williams, Paul Proper R. Brown McAllister Elementary School	<p>Using PBLs with the Soil and Water Conservation Poster Contest Topic</p> <p>Learn how to incorporate a PBL into the Soil and Water Conservation Office's annual Poster Contest. Presenters will share the vertical PBLs they have written that not only align to the science standards, but also integrate across the curriculum. Ideas for field trips, guest speakers, and technology using Google Expeditions will be shared.</p>	102	9:00 am
K - 5	Stephanie Nodleman, Langtree Charter Academy	<p>Teaching the 21st Century Learner</p> <p>Meeting our student needs and engaging them every minute of the day has become more challenging as the generational gap between teacher and student grows exponentially each year. Throughout this presentation you will be exposed to easy and effective strategies and methods to engage and motivate your students during your lessons. We will cover how to engage your students as well as explore apps and software to enhance the learning experience. Bring a wi-fi device to better interact during this PD.</p>	102	10:30 am

K - 5	<p>Colleen Boyea, Newell Elementary School</p> <p>Amber Stokes, J.V. Washam Elementary School</p>	<p>Increasing Rigor in the Science Classroom Using Literacy Integration</p> <p>Looking for ways to up the rigor in your science instruction? Interested in infusing literacy into teaching science? Here we will combine both! In this session, we will share ways to push student thinking to the highest levels while addressing literacy and science standards. You will receive sample lessons and takeaway resources on increasing the use of thinking maps, exploring cause and effect, forming generalizations, thinking like a scientist, and more.</p>	102	3:00 pm
K - 5	<p>Nicole Caprio, Mary Kay Connery</p> <p>St. Gabriel Catholic School</p>	<p>Go Dash Go!- Design a Robot Powered Cart</p> <p>Come join us for a fun filled hour of combining Coding, Math, and the Engineering Design Process. Walk away with a STEM project that your 3rd – 5th graders will LOVE!</p>	102	1: 30 pm
K - 5	<p>Judy Walker</p> <p>UNC Charlotte</p>	<p>Soar through Your STEM Curriculum with NASA Resources</p> <p>Looking for free quality resources for teaching STEM concepts? Come and see what NASA has available for you. We'll explore a bit of the solar system as well as look at other ways you can incorporate NASA resources across the your science curriculum.</p>	103	10: 30 am
K - 5	<p>Jennifer Barnard</p> <p>Gaston county Educators</p>	<p>Innovation Station Engineering is Elementary[EIE]</p> <p>Innovation Station is a class Gaston County Schools has implemented into their K-5 itinerant rotation. Using the Engineering is Elementary curriculum, students become engineers and use the Engineering Design Process to solve a real life dilemma. The curriculum integrates literacy, social studies and mathematics.</p>	103	1: 30 pm

K - 5	Debra Sahley, Kari Sirianni Lakeshore Elementary	<p>STEM into 2020!</p> <p>Are you motivated to implement STEM into your school culture? Have you started, but not sure where to go from there? Make 2020 your year to make STEM the best 4 letter word you can hear! This session is for the beginner teacher, teacher leader or administrator to get the inspiration to take STEM further into implementation using examples of lesson plans and activities from a K-5 school using technology, problem-based learning and literacy to activate the STEM classroom. Come ready to celebrate 2020 using STEM across grade levels and whole school connections!</p>	103	9: 00 am
3 - 8	Sandra Engbarth Stanley Middle School	<p>Call On ET to Enrich the Learning Process</p> <p>Wondering how to engage, motivate and prepare students? Incorporate engineering and technology activities that provoke creativity, collaboration and embed future-ready job skills. Take a closer look at the use of design challenges, robots and coding in the classroom. Participants will explore tools, links and examples of student work to help them plan activities for their own classroom. The session is designed for beginning to intermediate educators wanting to incorporate the ET in STEM in their teaching and learning.</p>	103	3:00 pm
3 - 8	Lara Cabaniss, Carmen Money Cabarrus County Schools	<p>Rising Waters: Adaptations in Bangladesh; Blending STEM and Global Awareness</p> <p>This session will integrate elements of STEM, problem-based learning, engineering, technology and global awareness. Participants will travel to Bangladesh on an interdisciplinary adventure with a mission to solve a global problem facing this country. Using tools such as Tour Builder, Google Expeditions and the engineering design cycle, participants will be challenged to solve a global problem while mastering core standards.</p>	165	9:00 am

3 - 12	Amethyst Klein University Park Creative Arts	<p>Discover the Jet Stream</p> <p>The Jet Stream was discovered/confirmed during WWII only as a result of using high-altitude bomber planes. During this time they found wind speeds of 179 knots from the west. This was unheard of until that time.</p> <p>Jet Streams are relatively strong winds concentrated as narrow currents in the upper atmosphere. The Polar -front jet stream is used by meteorologists as they forecast weather and its location is one of the most influential factors on the daily weather pattern across the United States.</p> <p>During this presentation we will use real weather data to find the Polar jet stream and determine how we can use it to predict weather. We will use this information to develop ideas on how to engage our students in discovering and using the jet stream for weather forecasting.</p>	165	10:30 am
3 - 12	Beth Harris Seven Oaks Consulting	<p>Low Tech STEM</p> <p>STEM is more than robots and 3D printing. We will redefine Technology to get to the heart of STEM – inquiry and problem solving – using common materials in this very hands-on session.</p>	165	1:30 pm
3 - 12	Jason Beideck NASCAR Hall of Fame	<p>KaPow! Adding Zing to your lesson through Racing</p> <p>Racing is a great way for students to apply STE(A)M knowledge through real-world application. Discover how to integrate problems, statistics, and data in across disciplinary approach and measure impact. Receive a tool kit of ideas, example lessons and a couple of surprises.</p>	165	3:00 pm

3 - 12	Sean Markwith Gaston County Schools	<p>Podcasting in the Classroom</p> <p>Would you like to use Audio in the Classroom. The session will focus on the how and the why. The tools on display are used on a Chromebook also one the iPad will be shared.</p>	166	9:00 am
6 - 8	Premkumar Pugalenti, James Feliciano Palisades Episcopal School	<p>New Homes Coming Soon! An Engineering and Mathematics PBL</p> <p>In this session, classroom teachers and researchers will share classroom-tested instructional sequences that use engineering context of designing blueprints for a new housing development and building 3D houses to motivate student's to develop their understanding of parallel lines as same distance apart and measuring angles as degree of turn. Participants will gain an understanding of systems thinking based mathematics Project Based Learning (PBL) and also strategies to incorporate them in their middle grade classroom settings.</p>	166	10: 30 am
6 - 8	Kimberly Mayes McClintock Middle School	<p>5E Everyday</p> <p>Remember the buzzword 5E? Learn how to refresh an old familiar framework to create student led inquiry-based classrooms for everyday instruction. Provide students with meaningful opportunities to construct meaning, multiple points of entry into curriculum, and equitable access to learning for all students: ELL, EC or AIG. 5E implementation does not have to be hard for students and educators. Discover strategies for making the 5E instructional model a focused, informative, engaging, and DAILY instructional tool.</p>	166	1:30 pm

6 - 8	Candice Wilson-McCain Fly Math Club, Inc.	<p>Closing the gender gap in math: Cultivating a generation of math and financially literate girls.</p> <p>Educators will learn how an after-school program empowers girls to become academic risk-takers who are leaders, critical thinkers, and problem solvers. In this interactive session, we will explore strategies to increase girls' interest and engagement in math by creating authentic learning experiences.</p>	166	3:00 pm
6 - 12	Jessica Enlow Cabarrus County Schools	<p>Claim-Evidence-Reasoning-Making Sense of Science</p> <p>Teachers will engage with materials that help to weave disciplinary literacy into their science courses. We will learn and practice strategies that teach students to think, read, write, and speak like a scientist. Specifically, teachers will learn about and practice supporting student thinking around Claim-Evidence-Reasoning (CER). Teachers will also have access to examples and other CER exemplars to use in their classroom.</p>	168	9:00 am
6 - 12	Tim Guilfoyle Berry Academy of Technology	<p>Blend Hands-On Learning with Technology and Build Engaging Models to Understand Global Change with HHMI BioInteractive</p> <p>The Earth is a dynamic place with many components that interact and shape our habitats. Engage in a FREE, classroom-ready HHMI BioInteractive resource that uses hands-on and technology-based visualizations to build models to explain how Earth Systems are affected by human activities and natural phenomena while creating connections among different processes, activities and measurable changes. Please bring a laptop or tablet!</p>	168	10:30 am

K - 12	Ashley Wilkinson, Jennifer Snyder Oakboro Choice STEM School	<p>Blended Learning: Incorporating VR with Nearpod</p> <p>Doesn't virtual reality require lots of equipment? Isn't it expensive? No! Learn ways to use Nearpod to incorporate virtual reality into your classroom. All your students to explore Egypt or the circulatory system with just a few clicks! In this session, participants will create an account, learn to search the library and create Nearpods of their own!</p>	036	10:30 am
K - 12	Jenna Markwith, Haley Armstrong Stanley Middle School	<p>Become a Wakelet Whiz in 3 Easy Steps!</p> <p>Wakelet is the latest and greatest curation tool to organize, create, and share content. If you have ever used Google Keep, Pinterest, Blendspace, or Diigo you will be blown away by all that Wakelet can do. Learn how to wade into this awesome tech tool and utilize all of it's features to hang ten with your students. We will share ways to integrate this tool into your curriculum and level up your students' learning.</p>	069	10:30 am
K - 12	Peter Panico, Devonshire Elementary School	<p>A Whole Bunch of Awesome Science EdTech Tools that will Make You Say WOW!</p> <p>We all know Kahoot and Quizlet, Let's try some lesser known tools to increase student engagement, productivity and creativity. We will explore, play and share tools and how they can make your classroom more awesome and for you to say WOW!</p>	036	1:30 pm

K - 12	Jordan Register, CSTEM UNC Charlotte	<p>Implementing Standards Based Grading in Middle & High Schools that Require a Traditional Grade-book</p> <p>I will discuss the benefits of Standards Based Grading for Middle and High School students. I will then provide resources to help participants set up a Standards Based Grading System in their courses which are conducive to a traditional grade-book. Teachers will be assisted in setting up a "concept list," a "concept score recorder," and a "concept progress report" to reduce the amount of work it takes to initiate a SBG system. Finally, we will discuss how to maintain the system in a way that benefits students and provides formative data to improve teaching, inform administration, and better communicate with parents.</p>	169	1: 30 pm
K - 12	Jessica Schouweiler, Chasity Bolch Newton-Conover Middle Schools	<p>Making Learning Relevant -- Makerspace PBL</p> <p>Making learning relevant through a design-thinking curriculum framework where students seek to answer a STEM industry's problem of practice. Come learn how you can create a makerspace PBL for your classroom and receive access to an exemplary model.</p>	168	1:30 pm
K - 12	Kerrie Lalli, Walter G. Byers School	<p>Inquiry-Based Learning through Projects and Problems</p> <p>Everywhere you look, it seems like teachers are talking about PBLs. Want to know what the buzz is all about? Come experience the PBL process from the learner's perspective through hands-on, collaborative activities. We'll be using PBLs developed by the Center of Excellence for Research, Teaching, and Learning (CERTL). These problems and projects will help you create a high-quality, engaging learning environment where the kids are in charge of their own learning.</p>	168	3:00 pm

K - 12	Jennifer Snyder, Oakboro Choice STEM School	<p>Coding in the Classroom: Increase Your 21st Century Toolbox</p> <p>Everyone is talking about coding.. but what IS it?How can you incorporate it in your classroom?</p>	169	9:00 am
K – 12	Alisa Wickliff, Kim Garrett CSTEM, UNC Charlotte	<p>NASA’s GLOBE Education Program</p> <p>Join us for a trip around the GLOBE...website and activities for all grades. Students can analyze NASA satellite data, participate in field measurement campaigns and collect data for satellite missions.</p>	038	9:00 am
General	Tommy Rose Back Creek Christian Academy	<p>Developing Growth Mindset with Real World STEM Skills</p> <p>Students from middle & upper grades are challenged to develop growth mindsets by engaging real-world STEM skills. Often students base their STEM aptitude and future potential solely on performance in traditional STEM classes, particularly math & science. Students are encouraged to challenge this misconception by opening their learning to designing, building, and competing specifically with submersible remotely controlled vehicles (ROV), no matter the skill level. Students learn necessary power and hand tools skills, soldering techniques, and the “make-break-fix-try-again-cycle”.</p>	169	3: 00 pm
General	Mark Case Southern Guilford High School	<p>Technology Does Not Mean Electricity!</p> <p>Technology means making your job easier! This will be a PBL session designed to work in a team to create technology to accomplish a specific task without using electricity! This will be a team building, networking hands on session. Do not come if you do not want to be engaged!</p>	038	10:30 am

General	<p>Jennifer Snyder, Ashley Wilkinson</p> <p>Oakboro Choice STEM School</p>	<p>PBL vs PBL? : How to integrate both Problem Based Learning and Project Based Learning into the Everyday Classroom</p> <p>Is it Project based learning or Problem based learning? It's BOTH!!! This session will show you how to easily integrate PBL learning into your everyday classroom. Hands-on examples and you will walk away with ideas to use right away!</p>	038	1:30 pm
General	<p>Melissa Easley</p> <p>McClintock Middle School</p>	<p>Using Nearpod to Engage, Assess and Adjust</p> <p>Participants will be using a variety of Nearpod activities to create lessons and assessments that are quick to make, easy to use, engaging and effective for students. Use these lesson to help immediately assess students in a variety of student-centered, engaging ways.</p>	036	9:00 am

General	<p>Nakisa Glover Girls Who Code</p>	<p>GIRLS WHO CODE The State of Girls In K-12 Computer Science Classrooms: Making the Case for Gender - Specific Education Policies</p> <p>Girls Who Code is an international non-profit organization working to close the gender gap in technology and change the image of what a programmer looks like and does. With our after school Clubs, 7-week Summer Immersion Program, a 2-week specialized Campus Program, and College Loops program, we are leading the movement to inspire, educate, and equip young women with the computing skills to pursue 21st-century opportunities. Girls Who Code has reached 185,000 girls to date through our programs and 100 million people through campaigns, advocacy work, and New York Times best-selling series. To join the movement or learn more, visit girlswhocode.com.</p> <p>Activities planned include: Student Projects Review A day in a club experience Start a Club - Application walk through</p>	036	3:00 pm
General	<p>Chris Gordan Lenoir Rhyne University</p>	<p>Programming in the classroom with classroom tested activities</p> <p>Want to bring coding into your classroom but are not sure how? We will address techniques to bring coding into your classroom regardless of grade. Come learn about robotics, programming including and beyond Scratch, using the Texas Instruments graphing calculators, and participate in non-computer activities that promote computational thinking. This fast-paced overview of activities are things you can do in the classroom tomorrow. Bring your computer and TI graphing calculator, if not we will have some you can use to learn all this cool stuff.</p>	038	3:00 pm

