Webinars that Support Distance & Blended Instruction

Below are a compilation of links to recordings of webinars that support distance learning. Please feel free to add additional links. If you have attended a webinar or watched the recording, please leave a comment about how useful you feel this webinar is and what kind of info folks can expect to learn from it.

How to Support Home-Based Science Learning During School Closures

Presented by: Drs. Megan Bang, Carrie Tzou, Leah Bricker, and Philip L Bell.

Home environments support different aspects of student learning than school-based environments. Designing home-based learning experiences to intentionally take advantage of the unique assets of being at home can be supportive of students' social, emotional, and mental health; provide a meaningful and complementary science learning experience; and allow students to explore real-world and personally relevant science in ways that are difficult to accomplish in school.

- To watch or share a recording of the original offering of this PD session or the resources, you can find that here: http://stemteachingtools.org/sp/HomeBasedScienceLearning
- If you or educational leaders in your networks would like to participate in a live session, the sign-up is here: https://www.pdenroller.org/ospi/Catalog/Event/104426

Coaching Confident, Connected, and Capable Science Learners

July 14, 2020

- <u>Link to webinar can be found here</u> (check back in a few days if not up yet)
- Link to resources

Using STEMscopes to Assess Gaps in Learning via Digital Assessments

Click Here to View Recording

Password: 1d@Z03zE

The Future of Teaching: Blending Online and Onsite Instruction

July 15, 2020

- Link to webinar can be found here (check back in a few days if not up yet)
- Link to resources

"Staying Grounded when Teaching Remote" NSELA Webinar

Click Here to visit OpenSciEd's webpage with various helpful webinars. Includes:

- Remote Learning Online Tool Organizer
- Fostering Productive Norms in Remote Teaching
- Leading an Anchoring Phenomenon Routine with Remote Teaching
- Using the Navigation Routine while Teaching Remotely
- Supporting Discourse while Teaching Remotely
- The Problematizing Routine while Teaching Remotely
- Additional Resources for Supporting Remote Learning

Or you can <u>click here</u> to view Nellie Hill's (Santa Barbara USD) **summary of all of these webinars** in one nice, expedient doc!

STEMscopes 2020 Mini STEMposia

Using NGSS STEM Practices to Empower Students' 21st Century Skills

Peter McLaren, MA

Executive Director, Next Gen Education LLC

This session is designed to lead participants through essential practices that engage students in STEM learning. It will support educators in planning lessons where students use the practices from the Common Core as well as the science and engineering practices of the Framework to support their learning

- Webinar recording
- Presentation deck

Engaging Student Engineers: Designing Engineering Solutions for Your Science Classroom Pam O'Brien, BS

Regional STEMcoach, STEMscopes

Engineering design challenges enable you to apply science and engineering practices in your classroom! Discover structures and strategies that will encourage critical thinking and problem solving through the Engineering Design Process. Learn how to implement, modify, and scaffold these strategies for distance learning.

- Webinar recording
- Presentation deck

Building Literacy through Science with the Five Es

Michele Cozza, MA

Manager of Professional Development, Accelerate Learning

Ashley Mathis, MEd

Manager of Professional Development, Accelerate Learning

Using talking, reading, and writing skills can be an important foundation for teaching literacy in the science classroom with the 5E instructional model. Through these activities, teachers can increase rigor in their classroom and promote a more student-centered environment, whether meeting students face to face or in a virtual platform. Participants will use a variety of tech tools that can easily be used with students in a distance learning environment.

- Webinar recording
- Presentation deck

Students with Inquiring Minds Are Scientists (SWIMAS): A Model for Student-Driven Inquiry-Based Science

Linda Cook, PhD

President-Elect, NSELA

Malachi Ewbank, MEd

Teacher, Coppell ISD, Coppell, TX

Participants will learn about the development, implementation, and ongoing improvement of the Students With Inquiring Minds Are Scientists (S.W.I.M.A.S.) model for student-driven inquiry-based learning. This model includes deep alignment with the standards, pre-assessment, student-generated questions, teacher-student goal-setting conferences, individualized learning pathways, scientific reasoning and explanation, and post-assessment. We will share our journey with the model before as well as during the COVID-19 school closings. Learn how the culture of "doing" science was maintained in the midst of social distancing and school closings.

- Webinar recording
- Presentation deck

Math Talks: Promoting Dialogue and Discourse in the Math Classroom

Angela Campana

MS, Regional Math Trainer, STEMscopes

Jill Lucero, MS

Regional Math Trainer, STEMscopes

How do you get students talking and writing about numbers? Join us for an interactive look at how to promote dialogue and discourse among your students. Walk away with ready-to-implement strategies—like "Decide and Defend"—that will get the conversation started in your classroom.

- Webinar recording
- Presentation deck

Overcoming Student Misconceptions – Barriers to Understanding Science

Mindy Pearson, MA

Regional STEMcoach, STEMscopes

Misconceptions represent faulty thinking and understanding, and they are pervasive. Educators play a major role in uncovering and addressing misconceptions through formative assessment and carefully crafted lessons. Join me to learn about the types of misconceptions our students harbor and how we can uncover and correct them.

• Webinar recording (got to the "completed" page)

A 2020 Vision for STEM Education - Inquiry Programs for All Students

Rodger W. Bybee, PhD

Executive Director Emeritus, Biological Science Curriculum Study (BSCS)

The popularity of STEM and the potential for STEM to address varied issues of state policies, school programs, and classroom practices all present the need for an education vision and concrete plans—that is, leadership. This keynote will provide background and ideas for leadership by the STEM education community.

- Webinar recording
- Presentation deck

Collaboration among partners, schools, businesses, community members, and after-school programs can strengthen student readiness and academic achievement. An effective STEM campus will grow and connect STEM learning opportunities for all students. Barriers that hinder equitable access also need to be identified. Come learn how to plan, implement, and sustain a campus—the cornerstone of a STEM ecosystem.

View Slides and Presentation Here

STEM Education for All Students, Including English Learners

Okhee Lee. PhD

Professor of Childhood Education, New York University - Steinhardt

The convergence of STEM subjects through broadening participation in technological innovations is changing the lives of students and teachers in classrooms and informal educational settings. Using classroom examples, this presentation will highlight how instructional shifts for STEM education and English learner education are mutually supportive.

- Webinar recording
- Presentation deck

Building A Community Bridge to STEM Success: STEM Innovation Hubs

Larry R. Plank, EdS

Director, K-12 STEM Education, Hillsborough County Public Schools, Tampa Bay STEM Network

With over 220,000 students, Hillsborough County Public Schools is the 7th largest school district in the nation and serves as the lead partner of the Tampa Bay STEM Network, one of the original 27 STEM Learning Ecosystems in the US. Early in development of their STEM "playbook," Essential Elements for STEM Education (2011), the district focused efforts upon engineering as a touchpoint for mathematics and science learning. In 2017, with the help of partners of the Tampa Bay STEM Network, Hillsborough County Public Schools launched a new program—STEM Innovation Hubs—in four areas of the district, in which collaboration with academic, business, and community partners (the ABCs of STEM) anchored the transformation to STEM in challenged areas. The focus of each STEM Innovation Hub was to build trust within the community to support equitable STEM learning for all students. Three years later, 27 schools have worked together in four "Innovation Hubs" to create a STEM identity for their neighborhoods and to build thriving centers of creativity. Each STEM Innovation Hub is racially identifiable, serves many low-income families, and has a cultural influence. Educators within each hub have contributed to the success of the program through professional sharing and learning. This session will focus upon building strategic alliances within the community, specifically the role of the site-based administrator and regional/area superintendent as the foundational levers for change and success.

View Slides and Presentation Here

Making Science Multilingual: Integrating Science and Language for ALL Students

David T. Crowther, PhD

Professor of Science Education, University of Nevada, Reno, NSTA Past-President

Rita MacDonald, MA

Wisconsin Center for Education Research at the University of Wisconsin-Madison

NSTA and the 40-state WIDA Consortium formed Making Science Multilingual to support educators in interrogating and revising assumptions and practices that unintentionally exclude multilingual students from three-dimensional science. Crowther and MacDonald will share MSM's pedagogical principles and new WIDA resources that leverage MLLs' language skills to support their effective engagement.

View Slides and Presentation Here

Come Construct Meaning through the Inquiry-based 5E + IA Model in Math

Angela Campana, MS

Regional Math Trainer, STEMscopes

Jill Lucero, MS

Regional Math Trainer, STEMscopes

Explore how the effective 5E +IA model drives student wonder, curiosity, and learning in the math classroom. We will take you through all phases of the model, including Engage, Explore, Explain, Elaborate, Evaluate, Intervention, and Acceleration. Take away strategies and ideas for your classroom.

View Slides and Presentation Here

TUESDAY, JULY 14 [2:00-3:15 pm CT]

Coaching Confident, Connected, & Capable Science Learners

Kelly Price Colley, PhD

Vice Principal, The Villages Charter High School, The Villages, Florida

Coaching students to success in science can require a multitude of learning tools besides the obvious traditional texts. The rationale behind using effective instructional methods goes way beyond test scores. Students who are confident in science processes are less defeated by science terms. Students who are connected in a community of learners are less isolated by science structures. Students who view themselves as capable are less likely to give up the journey to conceptual understanding of the world around them. This session will connect effective and applicable science instructional methods that coach students to be confident, connected, and capable in their science learning.

- Webinar recording
- Presentation deck

TUESDAY, JULY 14 [3:30-4:45 pm CT]

Formative Assessment Planning that Promotes Student Self-responsibility and Yields Individual Student Success

Kristan Buckman, MS, MEd

Regional STEMcoach, STEMscopes

Join us to empower students autonomous learning. We will explore a backward design strategy that helps you create a clear path of learning intentions through all your lessons, encouraging students to track their progress and decide how their time is spent preparing for the unit assessment.

View Slides and Presentation Here

Shane Woods, MS

Director, STEM Center of Excellence, Girl Scouts of Southeast Texas

Girl Scouts of Northeast Texas is changing the workforce pipeline in STEM to meet the urgent need for female voices, engagement, and leadership in the fastest growing sector of the US economy. Reports show that STEM occupations are growing at double the rate of other professions, and Girl Scouts is committed to filling the STEM workforce pipeline. As the director of the STEM Center of Excellence, a sprawling 92-acre living laboratory located in south Dallas, Shane will share how they are providing year-round experiences in robotics, coding, smart botany, and more in order to meet the need for 1 million more STEM professionals over the next decade.

View Slides and Presentation Here

WEDNESDAY, JULY 15 [3:30-4:45 pm CT]

The Future of Teaching: Blending Online and On-site Instruction

Judy Zimny, EdD

Vice President, National Institute for STEM Education

Kristin Majda, MS, MBA

California Academic Specialist, STEMscopes

This webinar will help teachers prepare for the ambiguity of fall 2020 and the possibility of serving students both on-site and online. We will share practical strategies, like setting up a tech friendly classroom, creating flexible lesson plans, and using collaboration protocols to support student learning regardless of location. In addition to supporting a blended learning environment, these strategies can also be used to support absent students, those on independent study, and teachers wanting to provide additional differentiation and opportunities through technology.

- Webinar recording (https://tinyurl.com/Blended-Learning-Webina)
- Presentation deck (https://tinyurl.com/Blended-Learning-Slides)
- Blended Learning Resource Folder (https://tinyurl.com/Blended-Learning-Resources)

THURSDAY, JULY 16 [2:00-3:15 pm CT]

How to Put the "Productive" into the "Struggle" in the Math Classroom

Angela Campana, MS

Regional Math Trainer, STEMscopes

Jill Lucero, MS

Regional Math Trainer, STEMscopes

Join us in diving into the process of productive struggle. Help students face problems in math and develop grit and creative problem solving techniques. Learn how to provide your students with opportunities to share their reasoning and celebrate their different ways of thinking.

View Slides and Presentation Here

THURSDAY, JULY 16 [3:30-4:45 pm CT]

Classroom Management - Strategies for STEM Student Success

Kristan Buckman, MS, MEd

Regional STEMcoach, STEMscopes

Pam O'Brien, BS

Regional STEMcoach, STEMscopes

Creating a positive classroom culture provides a strong foundation for STEM success. Join us to learn practical strategies that encourage student collaboration, autonomy, and engagement.

• <u>View Slides and Presentation Here</u>