

# New Jersey Science Convention Virtual 2020 Program

Posted 9/3/2020

October 17, 2020

1:00-2:00 PM

## **20. Supporting Students' Science Learning at Home During COVID-19**

Remote learning provides opportunities to connect the science we teach to students' everyday lives. Join us and three of our NGSS Teacher Leaders who will share how they have engaged elementary, middle, and high school students in NGSS-aligned investigations while learning at home. Receive further guidance and resources to support students and their families as they learn at home.

*Presenter: Wil van der Veen*

Grades: K-12 | Topic Areas: Integrated/General, Science Leaders/Supervision

October 17, 2020

2:15-3:15 PM

## **5. Bring on the Data! Beginning Strategies to Integrate Data & Science Literacy in Classroom and Beyond**

Data are fundamental for 3D teaching and success in the 21st century. Leverage how people learn to teach data skills alongside our content with these beginning strategies to build students data and science literacy.

*Presenter: Kristin Hunter-Thomson*

Grades: 5-12 | Topic Areas: Stem/Steam, Integrated/General

October 17, 2020

3:30-4:30 PM

## **15. Promoting Equity in Science Education**

Participants will explore concrete evidence-based strategies that lead to ALL students having opportunities to engage meaningfully in science learning.

*Presenter: Michael Heinz*

Grades: K-12 | Topic Areas: Equity and Access to Science, Science Leaders/Supervision

October 18, 2020

1:00-2:00 PM

## **11. Explore and Create Video Case Studies with HHMI BioInteractive Resources**

Students like videos and they like stories. Learn to use and create a video case study to engage your students either virtually or in person using free HHMI BioInteractive Resources.

*Presenter: Karen Lucci*

Grades: 7-12 | Topic Areas: Biology, Environmental Science

October 18, 2020

2:15-3:15 PM

### **3. Virtual STEM Programs at Liberty Science Center**

Join us to discover the many K-12 STEM Programs that Liberty Science Center offers via a virtual learning environment/platform. Participants will experience samples from both our student and teacher professional development programs. We have programs that focus on Life Science, Physical Science, Earth and Space Sciences, as well as the Engineering Practices.

*Presenter: Anthony Bisulca*

Grades: preK-12 | Topic Areas: Stem/Steam, Technolog

October 18, 2020

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### **27. Teaching Science through Issues to Increase Engagement, Prepare Citizens, and Meet the NGSS**

Explore how teaching science through current societal issues increases student interest in science, creates citizens to address these issues, and meets the NGSS. Leave with an issue and planning tool for your class.

*Presenter: Christopher Murphy*

Grades: 6-12 | Topic Areas: Equity and Access to Science, Integrated/General

November 14, 2020

11:30 AM-12:30 PM

### **6. Bring on the Data! Intermediate Strategies to Foster Mastery of Data Literacy in Science and Beyond**

Data are key to 3D teaching and 21st century success. Let's leverage statistical concepts and how people learn to bring our content to new levels with intermediate strategies to integrate data into our classroom.

*Presenter: Kristin Hunter-Thomson*

Grades: 8-12 | Topic Areas: Stem/Steam, Integrated/General

November 14, 2020

1:00-2:00 PM

### **19. Connecting Everyday Phenomena to the Science Ideas We Teach**

The goal of science instruction is support students as they make sense of the natural world in which they live. Join us and learn how to support students in connecting science phenomena that can be found around their homes to the science ideas we teach.

*Presenter: Wil van der Veen*

Grades: K-12 | Topic Areas: Integrated/General, Science Leaders/Supervision

November 14, 2020

2:15-3:15 PM

**21. Using Your Instructional Materials to Support NGSS-aligned Instruction and Assessment in Person or Online**

Frustrated with instructional materials that don't support 3-dimensional instruction? Learn from teachers who modified their resources to make them more NGSS-aligned – and easier to teach both face-to-face and online

*Presenter: Stacey van der Veen*

Grades: K-12 | Topic Areas: Integrated/General, Science Leaders/Supervision

November 14, 2020

3:30-4:30 PM

**12. Climate Change: Ensuring a Curricular Fit!**

Climate change permeates our state standards. Need teaching resources? Come learn about CLEAN (Climate Literacy & Energy Awareness Network), your go-to place for all your climate education needs.

*Presenter: Missy Holzer*

Grades: 6-12 | Topic Areas: Earth/Space Science, Environmental Science

November 15, 2020

11:30 AM-12:30 PM

**7. NASA's Infiniscope Online Interactive Teaching Resources**

The Infiniscope Digital Teaching Network hosts and distributes authentic, NGSS-aligned, digital, STEM learning experiences built with NASA data in which learners are supported through intelligent tutoring. The intelligent tutoring in Infiniscope experiences promotes equity in achievement through meaningful feedback to each learner, targeted to his or her responses.

*Presenter: Christine Girtain*

Grades: 6-9 | Topic Areas: Earth/Space Science, Integrated/General

November 15, 2020

1:00-2:00 PM

**4. Leveraging Existing Assessment Resources to Support Tridimensional Learning**

We will use readily available interactive tasks as examples to share ways to modify tasks with different disciplinary targets for the purpose of three-dimensional science teaching and learning in classrooms.

*Presenter: Shu-Kang Chen*

Grades: 9-12 | Topic Areas: Integrated/General, Biology

November 15, 2020

2:15-3:15 PM

**26. People and the Biosphere: Hands-on Activities for Environmental Science**

Discover data-rich lessons to help your students explore human population, biodiversity, climate change, land and natural resource use, as well as paths to sustainability. Grades: 7-12.

*Presenter: Judy Levine*

Grades: 7-12 | Topic Areas: Environmental Science, Common Core

November 15, 2020

3:30-4:30 PM

### **1. Creating Equitable Assessments**

3D learning includes content, practices and concepts. How do we make sure assessments are accessible to all students? How we assess, track and record our standards of achievement can change the focus of the class.

*Presenter: David Frangiosa*

Grades: 6-12 | Topic Areas: Equity and Access to Science, Integrated/General

January 9, 2021

11:30 AM-12:30 PM

### **8. Setting Teachers & Students Up for Success to Analyze & Interpret Data, Integrating Data Literacy In K-12 Classes**

Data are key to 3D teaching and 21st century success. Let's explore how we can support our teachers across the district, and disciplines, as they facilitate students using real-world data to learn science content.

*Presenter: Kristin Hunter-Thomson*

Grades: 3-12 | Topic Areas: Science Leaders/Supervision, Stem/Steam

January 9, 2021

1:00-2:00 PM

### **2. A Practical Guide to Transforming Your Grading Practices**

We will show you how to develop a standards-based grading system that reflects your values as an educator, works within a traditional grading model, and is consistent with the NGSS.

*Presenter: David Frangiosa*

Grades: 6-12 | Topic Areas: Integrated/General, Equity and Access to Science

January 9, 2021

2:15-3:15 PM

### **28. Using Physical Models of Proteins in Learning High School Biology**

Physical models of proteins such as 3D prints based on atomic coordinates from the Protein Data Bank or curated paper models can help learners understand the connection between protein structure and function and comprehend underlying chemical principles that lay behind the 3D structure.

*Presenter: Maria Voigt*

Grades: 9-12 | Topic Areas: Biology, Stem/Steam

January 9, 2021

3:30-4:30 PM

### **9. Learning Progressions in Science: Implications for Teaching, Learning, and Assessments**

What guidance can learning progressions (LPs) offer about science learning and where students are along a learning continuum? We will present our LP research and discuss how teachers can use LPs in classroom.

*Presenter: Lei Liu*

Grades: 5-9 | Topic Areas: Integrated/General, Biology

January 10, 2021

1:00-2:00 PM

**10. Using NGSS-Aligned Assessments Across Science Disciplines: A cCrosscutting Focus**

How can teachers use assessments that highlight NGSS Crosscutting Concepts? We'll share and analyze assessment tasks and examples of student work related to Crosscutting Concepts in Earth and Life Science Topics.

*Presenter: Dante Cisterna*

Grades: 6-12 | Topic Areas: Biology, Earth/Space Science

January 10, 2021

2:15-3:15 PM

**23. Using Digital Resources to Create the Ultimate K-2 Science Lesson**

Early Ed science shouldn't make you spin out of control! K-2 science can be very successful when taught with interactive, digital resources. See how a digital minute (or 5!) leads to a mastery of science concepts!

*Presenter: Jenna Mercury*

Grades: PreK-3 | Topic Areas: Integrated/General, Stem/Steam

January 10, 2021

3:30-4:30 PM

**14. Facing Students' Climate Change Anxiety**

For students, the discussion of climate change can result in eco-anxiety. Join us as we explore how to identify and support students' emotional responses to learning about climate change.

*Presenter: Carrie Ferraro*

Grades: 6-12 | Topic Areas: Equity and Access to Science, Earth/Space Science

February 6, 2021

1:00-2:00 PM

**30. Let's Get REAL with STEM: Career-Readiness for High Schoolers**

We don't provide HS students with in-depth, practical, concepts and practices. Interactive STEM Cases will empower our students to jump into the role of a real STEM professional tasked to solve real-world problems.

*Presenter: Jenna Mercury*

Grades: 9-12 | Topic Areas: Biology, Environmental Science

February 6, 2021

2:15-3:15 PM

**24. One Technology for ALL of STE(A)M**

Experience ONE technology that integrates ALL of STE(A)M. This session will leave you with plenty of ideas to use in your classroom right away. Free resources will be shared.

*Presenter: Robyn Poulsen*

Grades: 8-12 | Topic Areas: Stem/Steam, Technology

February 6, 2021

3:30-4:30 PM

**29. Digital Escape Room**

Join me to escape the science lab and learn how to create a Digital Escape Room! In this session we will try to escape a science lab. We will also learn how to create a digital escape room within Google Suite.

*Presenter: Talissa Nahass*

Grades: 6-12 | Topic Areas: Technology, Biology

February 7, 2021

11:30 AM-12:30 PM

**13. Stan-X: Unleashing a Passion for Research-Based Learning in Students and Teachers**

We will present the efforts of six secondary schools and lab-based partners at Stanford University to create relevant, impactful research-based learning curricula in the field of genetics, and how you can too!

*Presenter: Nicole Lantz*

Grades: 6-12 | Topic Areas: Stem/Steam, Biology

February 7, 2021

1:00-2:00 PM

**16. Talking Trash and Making Sense of Data**

Use real data to visualize the human impacts of pollution on our waterways. Learn ways to use this information to make graphing meaningful and fun.

*Presenter: Jessica Kohout*

Grades: 9-12 | Topic Areas: Environmental Science, Biology

February 7, 2021

2:15-3:15 PM

**17. Making Thinking Visible: Intro to SketchNotes**

The aim of SketchNoting is for individual students to make their thinking visible and create longer-lasting connections unique to their ways of thinking. During this session, participants will learn how to apply the SketchNote strategy to standards-based instruction and assessment.

*Presenter: Brittany John & Veronica Decamillis*

Grades: 6-12 | Topic Areas: Integrated/General, Equity and Access to Science

February 7, 2021

3:30-4:30 PM

**18. Applications of Satellite, Remote Sensing, and Computer Visualizations: To Observe the Earth and Visualize the Future**

Tasked with teaching earth and Space Science? Learn how you can apply satellite and remote sensing data in your classroom as a part of NASA's GLOBE Mission Earth. Join the GLOBE Satellites in Education Team.

*Presenter: John D. Moore*

Grades: 1-12 | Topic Areas: Earth/Space Science, Stem/Steam