

# Articulating the “Why”: Science in the Elementary Years

Multnomah Room of the Lloyd Center DoubleTree Hotel

Session 1: Friday November 11, 8am-10am

This exciting session will begin with an opening address and call to action by Peter McLaren. Panel members will then engage with attendees in a facilitated discussion concerning the successes and barriers to teaching science in elementary school. This will be followed by a group share-out of the key points of the discussions. Panel members will then respond to the key messages with their perspective and experience on how we might address these key points systematically. The end product of the panel and facilitated discussion will be a position statement published by OSTA on the regional, state, and national imperative of making time to teach science to elementary students. Together, we will identify the barriers that can hold schools back from providing science instruction and the solutions to overcome those barriers.

## Our Distinguished Panel



**Peter McLaren** - Peter McLaren is the Director and Founder of Next Gen Education, LLC and works as a consultant with states and districts in support of the implementation of the Next Generation Science Standards and other three-dimensional state science standards based on the *Framework for K-12 Science Education* (NRC, 2012). In his previous work Mr. McLaren served in a number of roles in the area of science education policy including Director of the State and District Support for Science at Achieve, Science and Technology Specialist at the Rhode Island Department of Education and President of the Council of State Science Supervisors (CSSS) serving as President from July 2010 until April 2013. McLaren also served as a member of the national writing committee for the Next Generation Science Standards (NGSS), the National Academy of Engineering' Guiding Implementation of K-12 Engineering Education committee, and the National Academy of Science Committee for Developing Assessments for the Next Generation Science Standards



**Dr. Salam Noor** - In his role as Deputy Superintendent, Dr. Salam Noor oversees the education of more than a half-million students in over 1,200 public and charter schools. He works closely with the Governor’s Education Policy Advisor and Chief Education Officer, Lindsey Capps, on implementing changes to the state’s education system to better align services, supports, and funding from pre-kindergarten through higher education to help the state reach its 40-40-20 goal. In addition to the education reform efforts currently in place, key priorities include ensuring students enter school ready to learn, strongly focusing on literacy—especially at the early grades, educational equity and closing opportunity and systems gaps, implementing new college- and career-ready standards and an aligned assessment, supporting educators in providing high-quality instruction in every classroom in the state, and making sure Oregon graduates leave our schools prepared for their next steps.



**Mark Lewis** - A lifelong educator and advocate for youth, Mark is driven by a passion for the critical role that education has in shaping the lives and prosperity of individuals and communities. With an undergraduate degree from Caltech and a Master’s Degree in Education, he brings over 25 years of experience in STEM — from his first career as a satellite engineer, to teaching high school science and mathematics, to leading professional development and strategic planning programs with hundreds of teachers and administrators. Prior to joining the Chief Education Office, Mark served as Washington STEM’s Senior Program Officer, stewarding its investment strategy and supporting a network of regional STEM leaders across Washington State. Additional professional experiences include senior university administration, as well as more than 10 years with the Peace Corps leading community development initiatives in the South Pacific and the Middle East.

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**Dr. Mary Gromko** - As NSTA's President, Mary has been a devoted teacher and dedicated leader in the science education community for more than 40 years. She began her career in education as a high school chemistry teacher in Connecticut. After moving to Colorado, she continued to teach for the Academy School District in Colorado Springs. During that time, Gromko also served as an instructor at the University of Colorado, Colorado Springs and the University of Denver. In 1989, after 17 years in the classroom, Gromko moved on to accept a position as the state science supervisor for the Colorado Department of Education. In 1999, she began working as the K-12 science supervisor for a school district in Colorado Springs. Most recently, Gromko served as a coordinator for teacher professional development at the University of Colorado's Center for Science, Technology, Engineering, and Math (STEM) Education. As the coordinator, she worked to implement STEM programs in grades K-16.



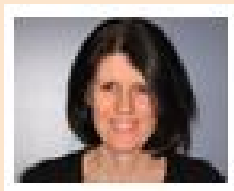
**Dr. Bryan Rebar** - Associate Director for the University of Oregon center for STEM Careers through Outreach, Research, and Education (STEM CORE). Throughout his career Dr. Rebar has always been interested in teaching that at once captivates learners and portrays authentic science. Dr. Rebar has considerable experience working to support teachers through professional development. Notable among this experience is his role while at Cal Poly (San Luis Obispo) as director for the STEM Teacher and Researcher (STAR) Program, a teacher research experience program supporting preservice and early career science and math teachers to participate in original cutting edge studies at leading national laboratories.



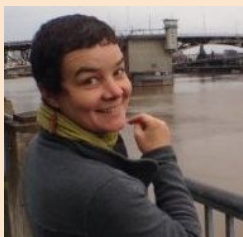
**Melissa DuBois** - STEM Hub Director for South Metro-Salem Partnership- A scientist by passion and by training, Melissa's newest endeavor is to help raise the next generation of scientifically literate thinkers and doers and inventors.



**Michael Ann McIlvenny** has a degree in elementary education with a minor in special education a master's degree in special education. She has a wealth of educational experience. She taught elementary and middle school general education and elementary, middle and high school special education for a total of 14 years. Michael Ann has recently retired from district level administration, which she did for 11 years. She is currently a Board member of the Albany Public Schools Foundation.



**Teresa Goetter** taught a dual language STEAM kindergarten class and saw significant increases in her student's reading ability as a result of teaching science all day. The STEAM focus caused student engagement to be high and improved opportunities for student discourse. Parents regularly volunteered creating a culture of cooperation and community. She will share her experience of the impact that science instruction had on the classroom culture and student learning.



**Cristina Trecha - Panel Moderator** - Cristina Trecha brings a decade of experience creating, running, and evaluating professional learning programs for educators from all settings. She is currently housed in the Center for Science Education at Portland State University where she works with a cadre of over 60 K-6 teachers from throughout Oregon as they try on the NGSS in their classrooms. A trained entomologist and historian of science, she was Director of the San Diego Science Project at UC San Diego from 2011-2014 and the Director of the Fleet Inquiry Institute for Teacher Professional Development at the Reuben H. Fleet Science Center from 2007-2013.

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# Taking Stock and Planning for Three-Dimensional Science Teaching and Learning in Elementary Schools

Multnomah Room of the Lloyd Center DoubleTree Hotel  
Session #2: 10:30am-12:30pm



**Andy Byerley**



**Carol Biskupic Knight**



**Noelle Gorbett**

In this workshop, elementary teacher and administrators will learn implementation strategies for transforming their schools' culture to be more inclusive of 3-D science teaching and learning.

## **Workshop Leaders**

**Andy Byerley** - STEAM Coordinator, Forest Grove School District

**Carol Biskupic Knight** - Elementary Science TOSA - Beaverton School District

**Noelle Gorbett** - K-12 Instructional Support Specialist Math, Science, STEM, CTE Tigard-Tualatin School District

At the elementary level, science has traditionally taken a backseat to subjects that are included in national and state accountability measures. However, in order to ensure that all students develop skills and habits of mind that will prepare them for future education, career pathways, and citizenship in the 21st Century, even our youngest students need to have access to “three-dimensional” learning opportunities called for by the *NGSS*. In this session, participants will have the opportunity to engage in an *NGSS* lesson to experience the shifts in instruction that are required. An Administrator’s *NGSS* Playbook that was created by the Oregon Science Teacher Leader Group will be shared. Participants will then be given time to begin developing a plan for supporting teachers as they increase student access to three-dimensional science learning experiences.

## **Session 3: 3-5pm - Social Networking Event - Multnomah Room of the Lloyd Center Double Tree Hotel**

During this social event meet other elementary science educators and share resources. Projects resulting from Math and Science Partnerships, STEM Hub and STEM innovation grants, will be shared. Participants will learn about the exciting programs across the state that have already begun to propel STEM education forward and are closing the achievement gap. Our hope is that you will walk away with ideas that could be replicated in your classroom, school and/or district and with connections that will help you transform your school(s).

[\*\*Register Here!\*\*](#)