

**Virginia Association of Science Teachers
2024 Professional Development Institute**

**General Session II
Friday, November 15, 10:30 AM
Sponsored by the Virginia Space Grant Consortium**



Dr. Carol O'Donnell, Smithsonian Science Education Center

“Transforming K-12 Science Education Through Innovation, Inclusion, and Sustainable Development”

In her Keynote address, *“Transforming K-12 Science Education Through Innovation, Inclusion, and Sustainable Development,”* Dr. Carol O'Donnell will discuss how the Smithsonian Institution, through the Smithsonian Science Education Center, is helping to transform our traditional understanding of science education so that we can inspire our students to be curious global learners. Dr. O'Donnell will share the results of their recent global survey conducted by Gallup, called “Educating for Sustainable Development,” which asked teachers and administrators from 5 countries what supports and barriers they face to teaching students about the world’s most complex socio-scientific issues of our time (such as climate change, clean energy, and consumption and production). Dr. O'Donnell will discuss their virtual exchange programs and the [Smithsonian Science for Global Goals](#) community research guides for youth--free K-12 classroom resources to help young people engage as partners and action researchers to find solutions to these global problems within their own local communities. **These innovative approaches center young people in leading their science learning**

and position science educators as facilitators of that process. Upending traditional approaches to science education, the project centers student voices, diverse perspectives, and representational role models, with an emphasis on inclusion and multiple ways of knowing, inspiring curiosity in youth to use science to take action for a sustainable global future.

Dr. Carol O'Donnell Biography

Dr. Carol O'Donnell is the Senior Executive and Director of the Smithsonian Science Education Center, dedicated to transforming K-12 Education through Science™ in collaboration with communities across the globe. Carol began her 40+-year career as a primary school science teacher before joining the Smithsonian as a national science curriculum developer. She then served as a research analyst overseeing a 5-year randomized control study of science curriculum at The George Washington University, where she received her doctorate and taught part-time for 15-years for the Physics Department. Prior to rejoining the Smithsonian in 2015, now as its Senior Executive, Carol served as a program officer at the Institute of Education Sciences and then Group Leader at the Office of State Support in the US Department of Education. Today, as the Senior Executive of the Smithsonian Science Education Center, Carol serves on numerous national and international committees dedicated to STEM education, including the Federal Coordination in STEM Education (FC-STEM) whose purpose is to advise and assist the Committee on STEM Education (CoSTEM) and the Director of the Office of Science and Technology Policy at the White House in developing strategic investments in STEM education across Federal agencies in the US; the InterAcademy Partnership Science Education Global Council, an appointment by the US National Academy of Sciences, Engineering, and Medicine; and the UN Broadband Commission for Sustainable Development Working Group for Digital Learning. Her passion for the important role that science education plays in students' lives is unwavering.