Registration Runs from 3:30 to 4:00pm. Prior to the start of the first session, you will be able to interact with various vendors as well as explore the Buffalo Museum of Science.

SESSION 1 **4:25 - 5:10**	**The Critical Zone: Where Rock Meets Life** **DON DUGGAN-HAAS** ***THE PALEONTOLOGICAL RESEARCH INSTITUTION***	**Electronic Portfolios for Student Teaching** **JOE ZAWICKI** ***SUNY BUFFALO STATE COLLEGE***	**Nudging Newton: Forces for Elementary Teachers** **DAVE HENRY** ***SUNY BUFFALO STATE COLLEGE***	**Using Animal Behavior as a Gateway to the Scientific Method** **TIFFANY VANDERWERF** ***BUFFALO ZOO***	**Success in the Science Classroom: Common Modifications for Inclusion Classes** **MARYANN BOLLES** ***WESTERN NEW YORK MARITIME CHARTER SCHOOL SPECIAL EDUCATION/ELL SAR***
SESSION 2 **5:20 - 6:05**	**Give a Hand to Hand Genomic Annotations** **LON KNAPPENBERGER** ***WESTFIELD ACADEMY AND CENTRAL SCHOOL NYS MASTER TEACHER***	**PolarTREC Educators** **STAN SKOTNICKI** ***CHEEKTOWAGA CENTRAL SCHOOLS***	**Plunge Into the Great Lakes** **HELEN DOMSKE** ***NEW YORK STATE SEA GRANT – CORNELL UNIVERISTY***	**Ward's Pure Preserved - The Safest Dissection Experience** **MATT LaROCCA** ***WARD'S SCIENCE***	**Using TED Ed To Enhance Your Classroom Teaching** **KIM PRESHOFF** ***WILLIAMSVILLE NORTH HS***
SESSION 3 **6:15 -7:00**	**Simulations, Stations and Spoons: Enhancing Your Chemistry Classroom** **SARAH ENGLISH** ***SWEET HOME HIGH SCHOOL WESTERN CHEMISTRY SAR NYS MASTER TEACHER***	**Holograms - lessons in reflection** **JOE ZAWICKI** ***SUNY BUFFALO STATE COLLEGE***	**STEM and The Nature of Science** **JIM GUIDO** ***WNY STEM HUB NYSUT SUBJECT AREA COMMITTEE FOR SCIENCE***	**Exploring Blubber Using Inquiry and a Text-Based Protocol** **MELANIE BENHAM TRIS D'ANGELO LENORE PATRONE CATHERINE SEDOTA MAUREEN TREEDO REBECCA ZUCH** ***DAEMEN COLLEGE TLQP PROGRAM***	**Bringing GLOBE to Your Classroom** **MICHAEL JABOT** ***SUNY FREDONIA***

Workshop Descriptions

Session 1 - 4:25 – 5:10

The Critical Zone: Where Rock Meets Life Don Duggan-Haas
From the bottom of the groundwater to the tops of the vegetation is where most life resides. Geologists, ecologists, climatologists and other scientists are doing 3D (NGSS) science in an NSF-funded network of observatories to better understand the critical zone.

Electronic Portfolios for Student Teaching Joe Zawicki
Student teachers in NYS are required to complete an electronic portfolio (edTPA) assessment in order to qualify for licensure. This session will provide an overview of the process for current or future cooperating teachers.

Nudging Newton: Forces for Elementary Teachers Dave Henry
We will discuss the NGSS learning progressions about forces and interactions and learn how to get students involved in hands on, minds on thinking.

Using Animal Behavior as a Gateway to the Scientific Method Tiffany Vanderwerf
The use of live animals can be a highly effective way to engage students of any age/grade level in science. During this workshop, teachers will engage in animal behavior studies to explore the use of animal behavior as a way to teach and reinforce the scientific method.

Success in the Science Classroom: Common Modifications for Inclusion Classes MaryAnn Bolles
This presentation will go over the important parts of an IEP and look at multiple ways to make modifications for your classroom.

Session 2 - 5:20 – 6:05

Give a Hand to Hand Genomic Annotations Lon Knappenberger
This presentation will provide teachers with a deeper understanding of molecular concepts and original student research. It will include an overview of several bioinformatics courses that I created and implemented at the High School level, as well as highlight the positive impact on both myself as a teacher and my students.

PolarTREC Educators Stan Skotnicki
Introduction to the PolarTREC program educational opportunities: how it can benefit you, your classroom and your community.

Plunge Into the Great Lakes Helen Domske
This hands-on session will provide curriculum materials and ideas to infuse Great Lakes information into your classroom. Current topics like microplastics, invasive species and climate change will be covered.

Ward's Pure Preserved - The Safest Dissection Experience Matt LaRocca
What are Volatile Organic Compounds and why should you care? Learn more about Ward's Pure Preserved specimens and check out a dissection demonstration with internal VOC off gas testing.

Using TED Ed To Enhance Your Classroom Teaching Kim Preshoff
Learn about the TED Ed website and how to modify lessons on the site and create lesson of your own using any Youtube video.

Session 3 - 6:15 – 7:00

Simulations, Stations and Spoons: Enhancing Your Chemistry Classroom Sarah English
Come explore the use of PhET simulations, station activities and novel The Disappearing Spoon in your classroom.

Holograms - lessons in reflection Joe Zawicki
Peppergram projectors have been used to create hologram-like simulations. We will discuss their application to optics, including exploring resources and building a small simulator.

STEM and The Nature of Science Jim Guido
The Nature of Science is often defined as the study of what science is and how it works. It is an integral part of the NGSS and has been carried over into the NYS Proposed Science Standards. This workshop discusses the fundamentals of The Nature of Science and how to integrate them into your classroom.

Exploring Blubber Using Inquiry and a Text-Based Protocol Melanie Benham, Tris D'Angelo, Lenore Patrone, Catherine Sedota, Maureen Tredo, Rebecca Zuch
Participants will explore blubber by creating effective insulation similar to that of arctic mammals through use of hands on inquiry and a text based protocol. Differentiation by readiness will be modeled allowing two student groups to work simultaneously on the same concept by either using the text to build background followed by the inquiry experiment, or vice versa for students who possess prior knowledge.

Bringing GLOBE to Your Classroom Michael Jabot
This session will share some exciting ways that teachers can have their classrooms involved with a number of NASA projects through the GLOBE (*Global Learning and Observations to Benefit the Environment*) Program.