

The New York State Master Teacher Program: Experiences, Goals and Future Directions in Earth Science Teaching

Stephanie Burns¹, Olga Crnosija², and Catherine Hantz³

¹Connetquot High School, ²Smithtown High School West, ³Mount Sinai High School

Earth Science, taught at the middle and high school levels, encapsulates the sciences focused on Earth's origins and processes and includes geology, astronomy, meteorology and some oceanography. As teachers who instruct students in these disciplines, we often use local Long Island features and current research and events to enhance our lessons. It falls to us to make our classroom labs even more inquiry-based and grounded in the real world. Additionally, as members of the New York State Master Teacher Program, composed of science and math teachers from across the state, we focus on developing our own skills and mentoring pre-service and early career teachers.

With Stony Brook University as our Long Island cohort's host-site, we have access to the support and expertise of educators to facilitate our development as instructors and mentors. We also encourage researchers and professional geologists to engage with our efforts to bring our classrooms into the physical world we study.

Since the Master Teachers Program's local launch in September 2014, we have attended mini-courses on current STEM subjects, gone on geological field trips, formed a Professional Learning Team on the development of inquiry-based labs and participated in professional development workshops to enhance student learning. We are also working with Stony Brook's Professor Gilbert Hanson to facilitate a course on Earth Science lab development to be offered to pre-service and in-service teachers in Fall 2015.

Ultimately, our goal as Master Teachers is to create a learning environment that serves our students, encouraging them to pursue STEM fields, particularly in the geosciences.