

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

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In the past year, our Long Island cohort of New York State Master Teachers focused on developing our mentoring skills by guiding pre-service and early career teachers. In September 2014, we formed a Professional Learning Team focused on the development of inquiry-based labs and participated in professional development workshops to enhance student learning.

Over the course of the Fall 2015 semester, we successfully ran a course with Stony Brook's Professor Gilbert Hanson on Earth Science lab development. Taught at the middle and high school levels, Earth Science focuses on Earth's origins and processes including geology, astronomy, meteorology and some oceanography. It falls to us to make our classroom labs more inquiry-based and grounded in the real world. Thus, we often use local Long Island features and current research and events to enhance our lessons. In our course, we assisted pre-service and early career teachers in developing outdoor, student-centered, inquiry-based labs on weather, topography, weathering/erosion and groundwater.

Our aim was to step away from traditional labs--where students follow prescribed instructions--and to make Earth Science learning an active, engaging experience for students, leading to improved understanding. 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. We plan to offer the Earth Science lab development course again to pre-service and in-service teachers in Fall 2016.