



## Landscapes of Learning Mathematics Professional Development for Master Teachers, P-8 Teachers, Coaches & Supervisors

The Western Region of the New York State Master Teacher Program is excited to offer our sequence of courses in the mathematical landscapes of learning series that focuses on the big ideas, strategies, and models related to the development of number sense and operational thinking across the elementary and middle school grades. The content will be situated within a landscape of learning framework<sup>1</sup> that is based on the premise that student's mathematical thinking develops through a progression that begins with contexts or concrete tasks followed by pictorial representations and culminating in abstract perspectives. Exploration of Common Core strands across the grade levels will provide opportunities for participants to share their grade level expertise and to enhance their understanding of the coherent development of topics along the K – 8 spectrum. Each participant will receive a CTLE certificate for 12 hours of professional development. First-time participants will also receive a set of six dry-erase boards (24x32) for small group work presentation.

This minicourse will meet for two weeks on Tuesdays and Thursdays at Buffalo State, from 5:00 - 8:00 PM. We will provide food and beverages so please join us at 4:30 before the session begins to allow time to eat.

**Landscapes I: May 22, 24, 29, 31**

**4:30 PM - 8:00 PM**

**Science and Mathematics Complex 259**

### **Number Sense, Addition and Subtraction**

From counting and cardinality through place value, this minicourse will look at the big ideas relating to number, addition & subtraction from whole numbers to fractions, the strategies students utilize in developing those big ideas, and models that promote concrete understanding. Our discussions will focus on sharing classroom practices that foster students' growth across the landscape and take advantage of the range of grade level perspectives that will be represented. Number talks, number strings, tape diagrams, tools for thinking including the rekenrek and Digi-Blocks, all will be an integral part of the course as we consider how best to develop students conceptual understanding in concrete and pictorial representations and that lead to more abstract thinking. The content in Landscapes I will be the basis for development of ideas central to the focus of Landscapes II & III coming in July.

**There is no cost for this workshop! The workshop is open to all Master Teachers, P-8 teachers, coaches, and administrators/supervisors. Seating is limited so please register soon at <https://wnymasterteachers.wufoo.com/forms/math-landscapes-may-2018/>**

**If you have questions, please contact Buffalo State Master Teacher Program at [msmt@buffalostate.edu](mailto:msmt@buffalostate.edu)**

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<sup>1</sup> The landscape model is based on the work of Catherine Fosnot as documented in her *Young Mathematicians at Work* series.