

GCCTM Winter Workshop

Connecting the Eight Effective Teaching Practices

Saturday, January 27, 2018 from 8:15 AM-1:00 PM
 Bay High School, 29230 Wolf Rd, Bay Village, Ohio 44140

Based on the following NCTM Publications:

Principles to Actions: Ensuring Mathematical Success for All
Taking Action: Implementing Effective Mathematics Teaching Practices
 (For Grades K-5, Grades 6-8, and Grades 9-12)



Learn about the eight effective teaching practices for mathematics and how to implement them in the classroom. In the opening session, Fred Dillon will lead participants in an activity that will help them learn about the eight effective teaching practices for mathematics. Following the opening session, educators will then break into the following grade band groups: K-5, 6-8 and 9-12 to dig deeper into two of the practices: “facilitate meaningful mathematical discourse” and “support productive struggle in learning mathematics.” The educators will learn specific strategies to implement these two practices in their classrooms and will continue to make connections amongst the other practices. Take this opportunity to recharge for the second half of the school year, earn 4 PDUs/Contact Hours, and take home activities and strategies that you can use for the rest of the school year and beyond.

AGENDA/SCHEDULE

8:15-8:45AM	Registration/Networking/Light Breakfast
8:45-9:00AM	Welcome/Business Meeting
9:00-9:50AM	K-12: Eight Effective Teaching Practices
10:00-11:20AM	K-5, 6-8, 9-12: Meaningful Mathematical Discourse
11:35AM-1:00PM	K-5, 6-8, 9-12: Supporting Productive Struggle

Registration Details

Cost of Registration	Member Rate	Non-Member Rate*	<p>To Register--Go to http://mygcctmonline.org/</p> <p>Or click on the following link: Jan27WorkshopRegistrationForm</p> <p>Registration Deadline: Monday January 22, 2018</p>
In-service/Retired Educator	\$25	\$40	
Pre-service Teacher/Student	\$5	\$7	
* Non-member rate includes a 1-year membership to GCCTM			

Session	Speakers/Facilitators
Grades K-12 Opening Session	Fred Dillon, NCTM author/PD facilitator
Grades K-5: Meaningful Discourse	Linda Gojak, Former NCTM President
Grades K-5: Productive Struggle	Annemarie Newhouse, South Euclid-Lyndhurst Schools
Grades 6-8: Meaningful Discourse	TBD
Grades 6-8: Productive Struggle	Sara Good, Parma City Schools
Grades 9-12: Meaningful Discourse	Lynn Aring, GCCTM Vice President and Mary Beth Hearn, Kenston Local Schools
Grades 9-12: Productive Struggle	Fred Dillon, NCTM author/PD facilitator and Anthony Bokar, Dover City Schools

Principles to Actions: Ensuring Mathematical Success for All (NCTM 2014) provides guidance on what it will take to make ambitious teaching, and rigorous content standards, a reality in classrooms, schools, and districts in order to support mathematical success for each and every student. At the heart of this book is a set of eight teaching practices that provide a framework for strengthening the teaching and learning of mathematics (see fig. 1.3). These teaching practices describe intentional and purposeful actions taken by teachers to support the engagement and learning of every student. These teaching practices, based on knowledge of mathematics teaching and learning accumulated over more than two decades, represents “a core set of high-leverage practices and essential teaching skills necessary to promote deep learning of mathematics” (NCTM 2014, p. 9).

Fig. 1.3 Eight Effective Teaching Practices for Mathematics

Establish mathematics goals to focus learning. Effective teaching of mathematics establishes clear goals for the mathematics that students are learning, situates goals within learning progressions, and uses the goals to guide instructional decisions.
Implement tasks that promote reasoning and problem solving. Effective teaching of mathematics engages students in solving and discussing tasks that promote mathematical reasoning and problem solving and allow multiple entry points and varied solution strategies.
Use and connect mathematical representations. Effective teaching of mathematics engages students in making connections among mathematical representations to deepen understanding of mathematics concepts and procedures and as tools for problem solving.
Facilitate meaningful mathematical discourse. Effective teaching of mathematics facilitates discourse among students to build shared understanding of mathematical ideas by analyzing and comparing student approaches and arguments.
Pose purposeful questions. Effective teaching of mathematics uses purposeful questions to assess and advance students’ reasoning and sense making about important mathematical ideas and relationships.
Build procedural fluency from conceptual understanding. Effective teaching of mathematics builds fluency with procedures on a foundation of conceptual understanding so that students, over time, become skillful in using procedures flexibly as they solve contextual and mathematical problems.
Support productive struggle in learning mathematics. Effective teaching of mathematics consistently provides students, individually and collectively, with opportunities and supports to engage in productive struggle as they grapple with mathematical ideas and relationships.
Elicit and use evidence of student thinking. Effective teaching of mathematics uses evidence of student thinking to assess progress toward mathematical understanding and to adjust instruction continually in ways that support and extend learning.