

Grades 6–8

NCTM 2010 Regional Conference & Exposition • New Orleans, LA • October 28-29, 2010

The NCTM Regional Conference and Exposition in New Orleans will offer over 200 presentations focused on mathematics education. The following is a small sampling of the sessions and gallery workshops that will be offered at NCTM's Regional Conference for educators who work with students in grades 6-8. For additional presentations please visit the **Online Conference Planner** at www.nctm.org/neworleans.

Adding, Subtracting, Multiplying, and Dividing Fractions Using NCTM Resources

Thursday, October 28 • 8:00 am - 9:00 am

Have you ever wondered about the math of changing gears on your bicycle? Gear ratios are just one application of operating on fractions that you will explore in this workshop. You will have hands-on experience investigating multiple ways of making operations on fractions more engaging for students, by using applets, games, and writing prompts.

Make It Relevant, Make It Fun, Make It Count

Thursday, October 28 • 10:30 am - 12:00 pm

This gallery workshop will present activity-based learning that both inspires the challenged learner and challenges the inspired learner. The use of manipulatives will incorporate all ten of the NCTM Principles and Standards for grades 6–8.

A Recipe for Creating "Good" Algebra Problems: Try, Listen, Refine, Repeat

Thursday, October 28 • 11:00 am - 12:00 pm

This session will examine the development and refinement of two related algebraic tasks through fifteen years of use with middle grades students. The revisions substantially enhance the chances that students will use multiple solution strategies while making it easier for teachers to direct classroom discussions.

Congruence and Similarity

Thursday, October 28 • 11:00 am - 12:00 pm

Participants will investigate problems designed to prepare students in grades 5–9 for the formal geometry of high school. The activities will focus on congruence and similarity and develop reasoning with geometric relationships and the use of precise, clear, and convincing arguments and justifications.

Modeling and Measuring the Solar System

Thursday, October 28 • 12:30 pm - 2:00 pm

This session will present several methods to model the solar system at different scales using hands-on methods. From distance to size, multiple models will be used that not only reinforce science concepts, but require students to apply mathematics concepts as well.

Great Geometry Problems for Grades 3–8

Thursday, October 28 • 2:00 pm - 3:00 pm

Geometry problems seem so hard to students, but high school classes and college entrance exams demand solid skills in geometry. These Math Olympiad problems can provide a remedy for both students and teachers. Participants will receive an additional 50 problems.

Let's Talk Math: Strategies to Promote Language and Conceptual Development in the Middle Grades

Thursday, October 28 • 2:30 pm - 4:00 pm

This fast-paced, interactive session designed to support students' engagement and understanding of mathematics concepts, vocabulary, and symbolic notation. Inexpensive, easy-to-use warmup activities that can be done in ten minutes or less and address the linguistic demands of high-stakes assessments will be shared.

A Hands-On Approach to Algebraic Competency in the Middle Grades

Friday, October 29 • 9:30 am - 10:30 am

Activities presented in this session will assist middle grades teachers with ways in which fundamental algebra skills can be presented using concrete and pictorial aids. Activities will be presented incrementally and thus will be appropriate for teachers of academically challenged and academically talented students.

The Way to Students' Minds Is through Their Stomachs

Friday, October 29 • 10:30 am - 12:00 pm

Use food such as doughnuts, cookies, soft drinks, candy, pizza, and many other foods to teach and reinforce math concepts. This workshop will make algebra, math connections, data analysis, geometry, measurement, problem solving, reasoning, numbers, and operations come alive for your students.

Mathematics through Paper Folding

Friday, October 29 • 10:30 am - 12:00 pm

Participants will join in an interactive, hands-on experience folding waxed and regular paper to illustrate geometric concepts. The session will begin with how to fold the basic constructions and then apply paper folding to lines, angles, squares, circles, triangles, parabola, and more. This will be an active mathematical experience.

Dollars and Sense! Developing Financially Literate Students

Friday, October 29 • 2:00 pm - 3:00 pm

Link financial literacy to your math curriculum! This teacher-made curriculum, a great tool to address equity gaps, can be used as an individual unit or incorporated into current lessons. Connect to math content through applications in banking, stocks, mortgages, and more. Attendees will see examples of students' work and participate in a lesson.

Using Math Games to Encourage and Enhance Students' Learning

Friday, October 29 • 2:30 pm - 4:00 pm

Participants will gain hands-on experience exploring sample games and extensions. They will discuss strategies while reflecting on the mathematical significance of each game. The workshop will focus on number and operations and problem solving as defined in NCTM's *Principles and Standards for School Mathematics*.

Algebra Just Got a Lot More Exciting

Friday, October 29 • 3:30 pm - 4:30 pm

This session will focus on techniques to engage students in learning concepts that prepare them for more formal algebra. Participants will engage in games, animated video for problem solving, and tasks that promote students' learning while adding excitement to mathematics.