Connected Mathematics Project 3

Beginning in the Fall of 2013, District 126 adopted the Connected Mathematics Project 3 as the primary curriculum materials being used in 6th – 8th grade math classrooms. This selection was made in conjunction with a curriculum study completed with several area districts participating in the South Cook Mathematics Initiative, a multiyear grant funded through the Chicago Community Trust and facilitated by personnel from UIC. Students have access to all materials online through the MATHdashboard at http://www.mathdashboard.com/cmp3/

Overarching Goal of Connected Mathematics

The CMP materials reflect the understanding that teaching and learning are not distinct—"what to teach" and "how to teach it" are inextricably linked. The circumstances in which students learn affect what is learned. The needs of both students and teachers are considered in the development of the CMP curriculum materials. This curriculum helps teachers and those who work to support teachers examine their expectations for students and analyze the extent to which classroom mathematics tasks and teaching practices align with their goals and expectations. In developing the CMP curriculum, we have taken the following words of Jerome Bruner to heart:

> If it (new curriculum) cannot change, move, perturb, inform teachers, it will have no effect on those they teach. It must first and foremost be a curriculum for teachers. If it has any effect on pupils, it will have it by virtue of having an effect on teachers.
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> (Bruner 1977, p. xv)

The overarching goal of CMP is to help students and teachers develop mathematical knowledge, understanding, and skill along with an awareness of and appreciation for the rich connections among mathematical strands and between mathematics and other disciplines. The CMP curriculum development has been guided by our single mathematical standard:

> All students should be able to reason and communicate proficiently in mathematics. They should have knowledge of and skill in the use of the vocabulary, forms of representation, materials, tools, techniques, and intellectual methods of the discipline of mathematics, including the ability to define and solve problems with reason, insight, inventiveness, and technical proficiency.

Units for 6th grade:

- Prime Time: Factors and Multiples
- Comparing Bits and Pieces: Rations, Rational Numbers, and Equivalence
- Let's Be Rational: Understanding Fraction Operations
- Covering and Surrounding: Two-Dimensional Measurement
- Decimal Ops: Computing with Decimals and Percents
- Variables and Patterns: Focus on Algebra
- Data About Us: Statistics and Data Analysis

Units for 7th grade:

- Shapes and Designs: Two-Dimensional Geometry
- Accentuate the Negative: Integers and Rational Numbers
- Stretching and Shrinking: Understanding Similarity
- Comparing and Scaling: Rations, Rates, Percents, and Proportions
- Moving Straight Ahead: Linear Relationships
- What Do You Expect?: Probability and Expected Value
- Filling and Wrapping: Three-Dimensional Measurement
- Samples and Populations: Making Comparisons and Predictions

Units for 8th Grade:

- Thinking with Mathematical Models: Linear and Inverse Variation
- Looking for Pythagoras: The Pythagorean Theorem
- Growing, Growing, Growing: Exponential Functions
- Butterflies, Pinwheels, and Wallpaper: Symmetry and Transformations
- Say It With Symbols: Making Sense of Symbols
- It's In the System: Systems of Linear Equations and Inequalities

Additional units for use with Algebra 1:

- Frogs, Fleas and Painted Cubes: Quadratic Functions
- Function Junction: The Families of Functions