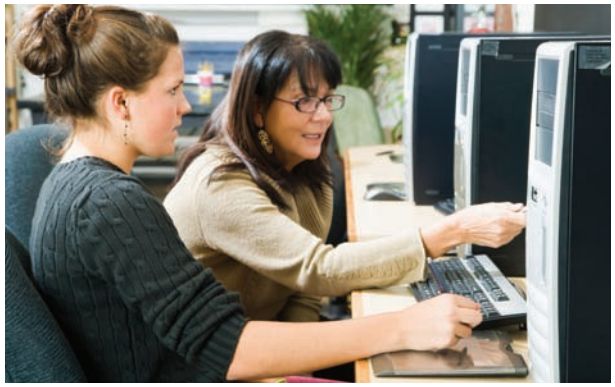
Mission Statement of the Common Core State Standards for Mathematics (CCSSM)

The Common Core State Standards provide a consistent, clear understanding of what students are expected to learn, so teachers and parents know what they need to do to help them. The standards are designed to be robust and relevant to the real world, reflecting the knowledge and skills that our young people need for success in college and careers. With American students fully prepared for the future, our communities will be best positioned to compete successfully in the global economy.



Additional Information

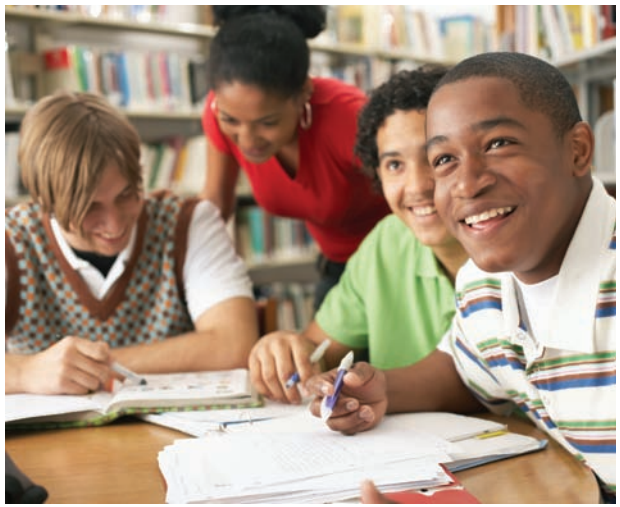
CCSSM Website
(Standards)
http://www.corestandards.org/Math

NCDPI Math Wiki Space
(State Resources)
http://maccss.ncdpi.wikispaces.net/home

Institute for Mathematics and Education
(Learning Progressions)
http://ime.math.arizona.edu/progressions/

NC Department of Public Instruction
Division of K-12 Curriculum and Instruction
6352 Mail Service Center, Raleigh, NC 27699-6352
www.ncpublicschools.org

Preparing North Carolina Students for College and Career Through the Common Core State Standards for Mathematics (CCSSM)



CCSSM Empowers Students in...

- Mathematical Modeling
- Application
- Critical Thinking
- Problem-Solving
- Reasoning
- Connecting Mathematics

PUBLIC SCHOOLS OF NORTH CAROLINA
State Board of Education | Department of Public Instruction

Why CCSSM?

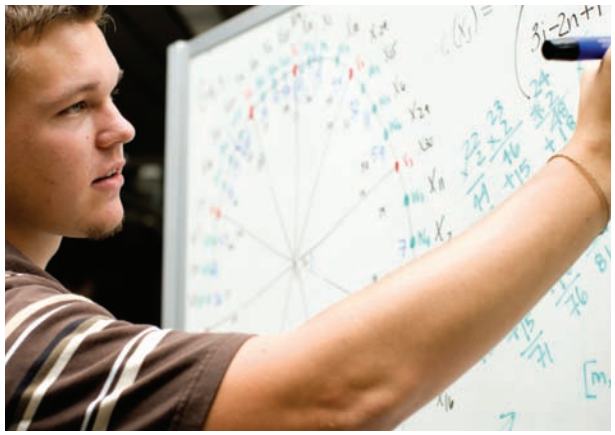
As society requires new skills from workers, mathematics instruction must change. To succeed today, students not only need to recall facts, they also need to apply knowledge. The CCSSM provides these tools for success.

The emphasis of high school mathematics instruction encompasses five conceptual categories that are highlighted in each course. The five conceptual categories are: number and quantity, algebra, function, geometry, and statistics. Mathematical modeling is an integral component of all conceptual categories.

The CCSSM emphasizes mathematical modeling concepts that include data collection, representation, interpretation, prediction, and simulation. The modeling perspective permits students to experience mathematics as a way to make sense of data and problems from real situations in many fields of work knowledge.

How will the CCSSM affect students' learning?

Students will develop a deep understanding of mathematical concepts and use mathematical ways of thinking to solve real-world problems. Included in the CCSSM are the Standards for Mathematical Practice designed to promote mathematical thinking through the use of engaging problem situations. Both collaborative groups and individual work are used to explore, conjecture, verify, apply, evaluate, and communicate mathematical ideas.



What are Math I, Math II, and Math III?

Math I, Math II, and Math III are a sequence of courses that build upon the foundation established in elementary and middle school. These courses develop mathematics across multiple categories, continue to promote diverse mathematical insights, and nurture differing strengths and talents.

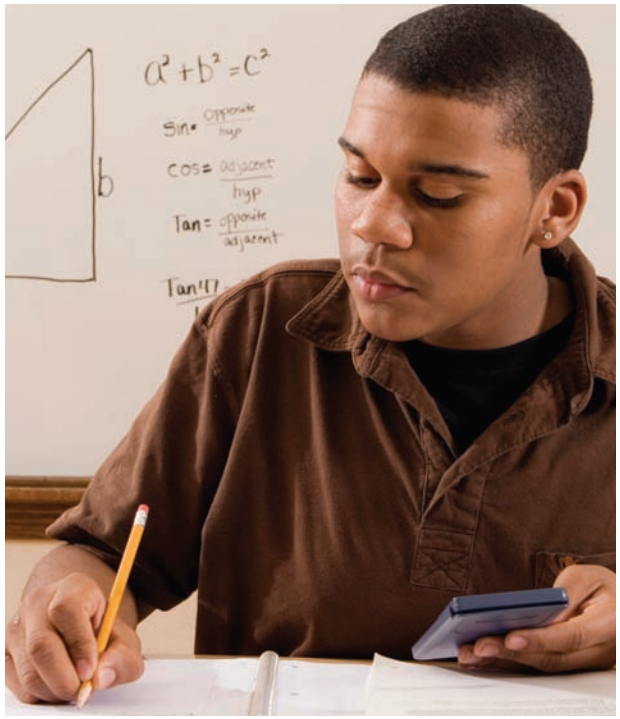
Math I provides students the opportunity to study concepts of algebra, geometry, functions, number and operations, statistics and modeling throughout the course. These concepts include expressions in the real number system, creating and reasoning with equations and inequalities, interpreting and building simple functions, expressing geometric properties and interpreting categorical and quantitative data.

Math II continues a progression of the standards established in Math I. In addition to these standards, Math II includes: polynomials, congruence and similarity of figures, trigonometry with triangles, modeling with geometry, probability, making inferences and justifying conclusions.

Math III progresses from the standards learned in Math I and Math II. In addition to these standards, Math III extends to include algebraic concepts such as: the complex number system, inverse functions, trigonometric functions and the unit circle. Math III also includes the geometric concepts of conics and circles.

Why transition to Math I, Math II, and Math III?

Research shows that students learn through progressions; they acquire new knowledge by building upon previously learned concepts, while gaining greater depth and complexity at each level. In elementary and middle school, students learn mathematics through progressive inter-connected mathematical ideas and Math I, Math II, and Math III continue this cohesive approach throughout a student's high school career. This approach to K-12 mathematics instruction better prepares students to be college and career ready upon graduation.



One High School Math Pathway

By 2014-2015 and beyond, <u>all</u> students will receive instruction on the Math I, Math II, and Math III standards as the high school mathematics sequence in all North Carolina public schools.