

Mathematics Parent Presentation

April 23, 2013

Welcome

Diane Moody, *Math Curriculum Specialist, Middle School*

Cathy O'Connell, *Middle School Principal*

Jon Bernard, *High School Principal*

Michael Maloney, *Middle School Assistant Principal*

Patrick Daly, *Director of Academic Services*

Why Change?

- ❖ Increased opportunities for in-depth student learning
- ❖ Increased opportunities for acceleration
- ❖ Increased electives/pathways for all students
- ❖ Less re-teaching in high school
- ❖ Opportunity to improve scores for all students
- ❖ Shift to the Common Core Mathematics

District Mission and Vision

Vision Statement

The North Reading Public Schools prepare all students to be productive citizens who thrive in the 21st century.

Mission Statement

The North Reading Public Schools provide a safe, supportive, and contemporary learning environment where dedication to excellence, service, and life-long learning is paramount. All students are challenged to work collaboratively and to become creative and critical thinkers. Emphasis is placed on mastering core academic knowledge, developing 21st century skills, pursuing individual potential, and fostering citizenship in a global society.

Good to Great

“Greatness is not a function of circumstance. Greatness, it turns out, is largely a matter of conscious choice, and discipline.” –Jim Collins, *Good to Great*

- ❖ Scores for Geometry and Measurement continue to be an area for improvement for all NRMS students
- ❖ NRMS Math scores (overall Advanced and Proficient) ranks 8th of 11 comparable districts in 2012
- ❖ Grade 10 scores are higher, ranks 4th of 11 comparable districts in 2012

A Shift to the Common Core

- ❖ “The goal must not be for students to take an algebra course by eighth grade; it must be for more students to learn algebra.” (Loveless, 2008; *The Misplaced Math Student: Lost in Eighth Grade Algebra*, p. 13.)

A Shift to the Common Core

- ❖ Focus
- ❖ Coherence
- ❖ Clarity
- ❖ Rigor
 - ❖ Fluency and procedural skill
 - ❖ Deep Conceptual Understanding
 - ❖ Application

A Shift to the Common Core

- ❖ Common Core State Standards and new Frameworks
- ❖ Changing Assessments: New Standards, PARCC/MCAS
- ❖ **Grades 3-8 and Grade 10 Transition Plans**

2012-2013: *Near* full implementation of Common Core Framework in schools and districts (Grades 3-8)

2013-2014: Full implementation of Common Core Framework in schools and districts (Grades 3-8)

2014-2015: Full implementation of Common Core Framework in schools and districts (Grade 10)

Increased Rigor

- ❖ Common Core Grade 8 standards are of significantly higher rigor than the former Grade 8 standards
 - ❖ Address the foundations of Algebra by including content that was formerly a part of the Algebra I course standards
 - ❖ In-depth study of linear relationships and equations, functions, and irrational numbers, sophisticated statistics, and geometry that relates to algebra
- ❖ Common Core Model Algebra I course builds on Common Core Grade 8 standards and is correspondingly more advanced than the current Algebra I course

Sample Grade 7 Pathway

- ❖ Grade 8: Grade 8 Math
- ❖ Grade 9: Algebra I*
- ❖ Grade 10: Geometry* and/or Algebra II*
- ❖ Grade 11: Algebra II* and/or Pre-Calculus*; Pre-Calculus* and/or AP Statistics; Computer Programming
- ❖ Grade 12: Calculus*; AP Calculus AB, AP Calculus BC; AP Statistics; Computer Programming; AP Computer Science; Senior Integrated Math

*Honors level option available

Future Accelerated Pathways for Students

- ❖ Middle School students may demonstrate readiness for advanced mathematics courses through their performance on a common assessment to be reviewed by a team of stakeholders that includes teachers and instructional leadership.
- ❖ Future Possibility: Compacted pathway at the middle school that leads to an advanced high school-level course in middle school (Algebra I) in Grade 8
- ❖ Students will be learning advanced work at an accelerated pace

Questions?