

Accelerated Pathways in Mathematics

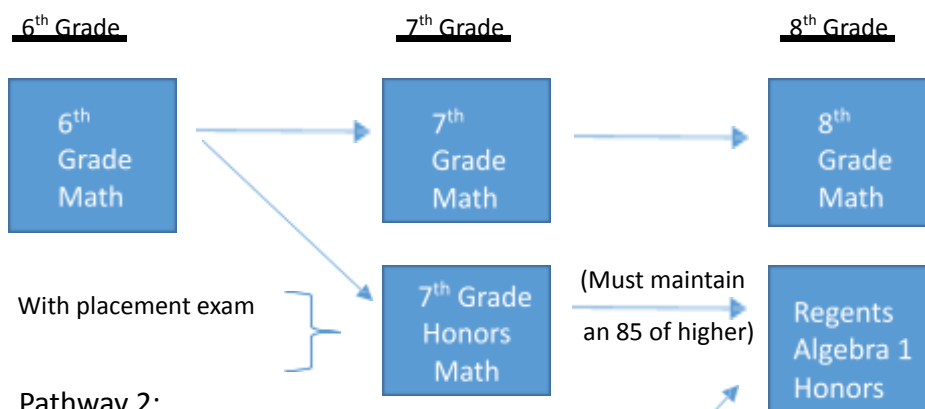
North Country Road Middle School

The North Country Road Middle School has an accelerated pathway to foster student achievement in Mathematics. This program is based on student readiness and provides opportunities for acceleration if appropriate at another time during the middle school years. **A student is not "behind" if they do not accelerate.**

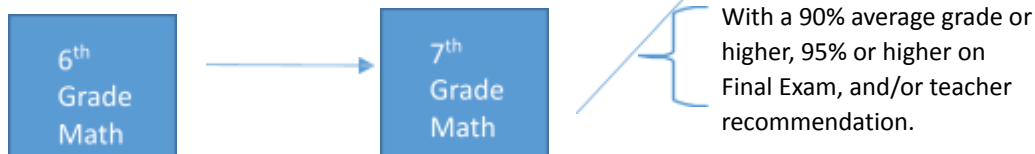
Possible Pathways in Math

- Most students will follow the standard New York State Mathematics progression, beginning with Math 6, followed by Math 7 and Math 8.
- Some students may meet the criteria for Math 7 Honors. Students who are successful in Math 7 Honors and meet the minimum grade requirements are eligible to enroll in Algebra I Honors (Regents) in grade 8.
- Students in Math 7 who do not enroll in the honors course may still be considered for Algebra I Honors based on strong performance (a minimum 90% final average and 95% on the final exam). However, students who accelerate directly to Algebra I without completing Math 8 should be aware that they may miss key foundational skills.
- Math 8 plays a critical role in developing algebraic reasoning and mathematical fluency, serving as a bridge to Algebra I and future high school mathematics courses. Students who choose to accelerate should be prepared for the additional effort required to master these concepts independently.

Pathway 1:



Pathway 2:



Math 7 Honors

- The Math 7H course covers the grade 7 curriculum and some essential grade 8 material, providing a strong foundation before advancing to Algebra I Honors in grade 8.
- This course compacts the grade 7 and some grade 8 math curricula, increasing both pace and rigor.
- This class will be “weighted” in comparison to other classes (1.05%)
 - 90% = 94.5%
 - 80% = 84%

Why Accelerate?

The purpose of acceleration in Math is to provide students with opportunities to engage in advanced coursework throughout high school. By completing Algebra I, Geometry, and Algebra II by grade 10, students will have the flexibility to pursue higher-level math courses beyond Pre-Calculus, such as Calculus or AP Calculus, as well as explore additional advanced mathematics topics beyond these courses, including college-level or specialized STEM courses. Some students demonstrate mastery of grade-level content, making them ready for more advanced material.

Placement Exam

Approximately the top 60% of students will be invited to take a Math 7H placement exam. This exam will assess material covered in grade 6, as well as concepts that extend beyond the current curriculum. This placement exam is designed to assess students’ readiness for an accelerated and rigorous math experience. The exam includes a mix of multiple-choice and extended response questions and is divided into two parts.

The exam focuses on key concepts from Grade 6, with some introductory Grade 7 topics. Students may be asked to solve real-world problems and demonstrate a strong understanding of topics including, but not limited to, the following:

- | | |
|---|--|
| • <i>Algebraic expressions and equations</i> | • <i>Multi-step real-world problem solving</i> |
| • <i>Coordinate plane and distance</i> | • <i>Prime factorization</i> |
| • <i>Data interpretation from tables and graphs</i> | • <i>Proportional reasoning and percent applications</i> |
| • <i>Geometry (area and volume)</i> | • <i>Ratios, rates, and unit rates</i> |
| • <i>Integer operations and number lines</i> | • <i>Unit pricing and cost analysis</i> |
| • <i>Interpreting tables and diagrams</i> | • <i>Volume and scaled figure</i> |
| • <i>Least common multiple and common factors</i> | |

Selection Criteria for Math 7H

- **Math 6 Final Grade Average (60%)**
- **Math 7H placement exam (30%)**
- **Overall Grade 6 Grade Point Average (10%)**