Middle School Honors

- All core subjects have a Program of Studies (POS).

- For English, Social Studies and Science, the Honors program is for students who have demonstrated high achievement in a specific area of academic strength.

- For these three subjects, honors classes extend and enrich the curriculum (FCPS Program of Studies).

- For Math, the honors program is an acceleration, not an enrichment/extension of the Program of Studies.

- Students who have participated in an advanced Math 6 course in elementary school (formerly known as compacted math) have actually completed the Math 7 curriculum and take the Math 7 SOL at the end of 6th grade.
Math 7, Math 7 Honors and Math 8 are all classes that prepare students for Algebra.

Algebra is the basis for all other high school math classes. A strong foundation in algebra is required for success in future math classes.

The goal in middle school is to ensure that students are placed in the appropriate math class to maximize opportunities for success and foster continued positive experiences with math.
The seventh-grade standards emphasize the foundations of algebra. Topics include:

- Proportional Reasoning
- Integer Computation
- Solving two-step linear equations
- Recognizing different representations for relationships.

Problem solving has been integrated throughout the six content strands.
Math 7 Honors follows the Math 8 Program of Studies and includes extension topics.

The standards contain content that reviews or extends concepts and skills learned in 7th Grade.

New content prepares students for more abstract concepts in algebra and geometry.

Students will gain proficiency in computation with rational numbers and will use proportions to solve a variety of problems.
New concepts include:

- Solving multistep equations and inequalities;
- Graphing linear equations;
- Visualizing three-dimensional shapes represented in two-dimensional drawings;
- Applying transformations to geometric shapes in the coordinate plane.

Students will verify and apply the Pythagorean Theorem and represent relations and functions, using tables, graphs, and rules.
For students who completed Math 6 and were not enrolled in an advanced math 6 program, they would be missing a full year’s curriculum if they enroll in Math 7 Honors. Topics that would not be covered in Math 7 Honors include:

- **1st Quarter** – The Real Number System and integer computation
- **2nd Quarter** – Ratios, Percents, & Proportions, Inequalities, and Functions.
- **3rd Quarter** – Geometry and Measurement.
- **4th Quarter** – Probability and Statistics.
Equations Unit

1. Solve the following equation and check your answer:
   \[ n + 5 = -12 \]

2. Solve the following equation and check your answer:
   \[ 2b + \frac{1}{6} = \frac{7}{8} \]

3. Translate the following verbal statement into an algebraic expression and solve:
   Three less than the sum of three and number is thirty-four

4. Write an equation for each word problem. Solve the equation. Then give the solution to the problem.

   Rachel went to the store to buy popsicles. She spent $12 on 15 popsicles. How much did one popsicle cost?
Equations Unit

1. Solve the following equation and check your solution:
   \[ \frac{3}{4}q - 8 = \frac{1}{4}q + 9 \]

2. Solve the following equation and check your solution:
   \[ -3n + 5(n + 9) + 2n = 6n - \frac{3}{4}(-12n + 20) \]

3. Write an equation that represents the word problem. Solve to find a solution
   
   *Julio bought pencils that cost $.39 each and a notebook that cost $1.19. The total cost was $3.92. How many pencils did Julio buy?*
## Middle School Math Sequence

<table>
<thead>
<tr>
<th>ELEMENTARY SCHOOL</th>
<th>MIDDLE SCHOOL Grade 7</th>
<th>MIDDLE SCHOOL Grade 8</th>
<th>HIGH SCHOOL Grade 9</th>
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<th>HIGH SCHOOL Grade 11</th>
<th>HIGH SCHOOL Grade 12</th>
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<tbody>
<tr>
<td>Grades K-6</td>
<td>Algebra 1 Honors</td>
<td>Geometry Honors</td>
<td>Algebra 2 Honors</td>
<td>PreCalculus Honors</td>
<td>AP Calculus BC</td>
<td>Multivariable Calculus</td>
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**Students enrolling in Algebra 1 Honors in 7th grade must meet placement criteria.**

* Precalculus includes all the topics of trigonometry

* Multivariable Calculus is a one semester course followed by Matrix Algebra

Algebra 1 Honors

Rising 7th grade students will be placed in Algebra 1 Honors based on all of the following:

- Successfully completing the Advanced Mathematics 6 Program (Compacted Math) or a yearlong accelerated program.
- A score at or above the 91st percentile on the Iowa Algebra Aptitude Test.
- A score at or above 500 on the Virginia Standards of Learning grade 7 mathematics test.
HONORS PLACEMENT TIMELINE

- **February/March**
  
  Honors Brochure distributed to students during ES visits

- **March**
  
  Parents/students select choices

- **April – May**
  
  Middle Schools review data and enroll students who have not selected honors

- **April – August**
  
  Course selections are reviewed and confirmed. Schools and parents work together if there are schedule changes.

- **End of July**
  
  Algebra I Honors Placement Letters mailed to parents.

2/28/2012
Questions?

- Contact Linda Washco
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