Middle School Math Placement

2020-2021
A Need for Change
Data Review
2020-2021 Placement Components
6th Grade Courses
6th Grade Placement
7th Grade Placement
8th Grade Placement
Opportunity for Advancement
Middle School and High School Math Sequences
For the past 5 years, the process of placing students into an appropriate math course in each of their middle school years utilized a matrix of scores:

- an average of the unit assessments (including the mid-year assessment)
- an end of year math assessment score
- a standardized assessment score

This year, with the shift to distance learning as a result of Covid-19, the district was unable to collect all of the data to complete the process as it was done in the past.

Administrators, coaches and math staff members worked together to review the data that had already been collected this year, in conjunction with student performance over the past 3 years in each of the grade level courses. From that data review, adjustments were made to the placement process.
When discussing the need to revise the placement process for the upcoming year, the committee first identified what data had already been collected this year.

Next, a comprehensive 3 year data review was completed looking at student performance in all assessment areas across each of the 3 levels offered for each grade level.

Median scores were compiled and from this data review, criteria was identified that would place students into an appropriate math placement.

In reviewing the data, a decision was also made to remove waiver criteria. In its place, all students would be given the opportunity to advance a level, should they seek it. This would eliminate added stress and potential movement at the end of marking period 1.
The district’s goal for math placement in the middle school continues to be ensuring that Branchburg students:

- Are on track for successful achievement of secondary mathematics.
- Are college & career ready by achieving the New Jersey Student Learning Standards (NJSLS) in Mathematics for Grades K-8.
- Achieve at the highest level of performance with success and confidence.
### Overview of Math Placement Components 2020-2021

Initial placement components are listed below:

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<tr>
<th>6th Grade</th>
<th>7th Grade</th>
<th>8th Grade</th>
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<tbody>
<tr>
<td>Initial student placement will be based on:</td>
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<td>- an average of unit assessments completed before the shift to distance learning and</td>
<td>- continuing onto the next course in the placement progression</td>
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<td>- NWEA MAP score</td>
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6th Grade Courses

Math 6:
Math 6 is the on-target, grade level math course where the majority of 6th grade students begin. Math 6 meets the New Jersey Student Learning Standards for grade 6 while providing students opportunities for activities and experiences where they can explore real world applications at a concrete level with greater teacher support.

Foundations of Pre-Algebra 6:
Foundations of Pre Algebra 6 meets the New Jersey Student Learning Standards for grade 6 at an elevated level, providing students challenging activities and experiences where they can explore in greater depth real world applications of mathematical skills. The concepts presented follow the sequence of learning for the 6th grade curriculum but require students to apply them in a more independent, inquiry based model.

Pre-Algebra 6:
Pre-Algebra 6 is a fast-paced, rigorous course that emphasizes problem-solving and critical thinking while developing necessary concepts for the further study of Algebra I (a high school level course they will meet in their 7th grade year). Pre-Algebra 6 meets the New Jersey Student Learning Standards for grade 6 and some of the grade 7 standards.
To determine initial placement into one of the three courses in 6th grade, the following data collected during the 5th grade school year will be used:

- Unit assessments, including the mid year assessment, will be averaged together
- Student scores from the Unit 1 assessment will only be used if they benefit the student
- The highest MAP score during the 2019-2020 school year will be used (Fall or Winter)

Criteria for each of the courses is outlined on the following slide.

There will no longer be a waiver component to the placement process. Instead, all Math 6 and Foundations of Pre-Algebra 6 students will be eligible for an opportunity to advance a level by participating in an Algebra Prognosis assessment, should they be interested. More details about the process and criteria for advancing a level will be shared on a later slide.
6th Grade Placement Criteria

**Math 6:**
All students will initially be placed into this grade-level course unless they meet the criteria for either the Foundations of Pre-Algebra 6 or Pre-Algebra 6 course outlined to the right.

**Pre-Algebra 6:**
In order to initially be placed into the most accelerated Pre-Algebra 6 course, a student must have:

- an Assessment Average of 95 or higher

  **and**

- a 5th grade MAP score of 242 or higher
  (either the Fall or Winter administration)

If a parent feels that this placement is not appropriate for their child, they may request placement into Foundations of Pre-Algebra 6.

**Foundations of Pre-Algebra 6:**
In order to initially be placed into the accelerated Foundations of Pre-Algebra 6 course, a student must have:

- an Assessment Average of 85% or higher

  **and**

- a 5th grade MAP score of 234 or higher
  (either the Fall or Winter administration)

If a parent feels that this placement is not appropriate for their child, they may request placement into Math 6.
7th Grade Placement

To determine initial placement into one of the three courses in 7th grade for the 2020-21 school year, all students will advance into the next course on the mathematics progression:

- All Math 6 students will be placed into Math 7
- All Foundations of Pre-Algebra 6 students will be placed into Pre-Algebra 7
- All Pre-Algebra 6 students will be placed into Algebra 7

There will no longer be a waiver component to the placement process. Instead, all students initially placed into Math 7 and Pre-Algebra 7 will be eligible for an opportunity to advance a level by participating in an Algebra Prognosis assessment, should they be interested. More details about the process and criteria for advancing a level will be shared on a later slide.

Please note that historically:
- Foundations of Pre-Algebra 6 students with unit assessment averages of at least a 90% have met success in advancing to Algebra 7
- Math 6 students with unit assessment averages of at least an 85% have met success in advancing to Pre-Algebra 7
7th Grade Placement Criteria

**Math 7:**
All students enrolled in Math 6 during their 6th grade year will automatically be enrolled in Math 7 for their 7th grade year.**

**Pre-Algebra 7:**
All students enrolled in Foundations of Pre-Algebra 6 during their 6th grade year will automatically be enrolled in Pre-Algebra 7 for their 7th grade year.**

If a parent feels this placement is not appropriate for their child, they may request placement into Math 7.

**Algebra 7:**
All students enrolled in Pre-Algebra 6 during their 6th grade year will automatically be enrolled in Algebra 7 for their 7th grade year.

If a parent feels this placement is not appropriate for their child, they may request placement into Pre-Algebra 7.

**All Math 7 and Pre-Algebra 7 students are eligible for an opportunity to advance a level, should they be interested.**
8th Grade Placement

To determine initial placement into one of the three courses in 8th grade for the 2020-21 school year, all students will advance into the next course on the mathematics progression:

- All Math 7 students will be placed into Algebra Connections
- All Pre-Algebra 7 students will be placed into Algebra 8
- All Algebra 7 students will be placed into Geometry

There will no longer be a waiver component to the placement process. Instead, all students initially placed into Algebra Connections will be eligible for an opportunity to advance a level by participating in an Algebra Aptitude assessment, should they be interested. Students placed in Algebra 8 cannot advance to Geometry, as completing an Algebra course remains a graduation requirement by the NJ Department of Education. More details about the process and criteria for advancing a level will be shared on a later slide.

Please note that historically:

Math 7 students with unit assessment averages at least an 89% have met criteria in advancing to Algebra 8.
8th Grade Placement Criteria

**Algebra Connections:**
All students enrolled in Math 7 during their 7th grade year will automatically be enrolled in Algebra Connections for their 8th grade year.**

**Algebra 8:**
All students enrolled in Pre-Algebra 7 during their 7th grade year will automatically be enrolled in Algebra 8 for their 8th grade year.
If a parent feels this placement is not appropriate for their child, they may request placement into Algebra Connections.

**Geometry:**
All students enrolled in Algebra 7 during their 7th grade year will automatically be enrolled in Geometry for their 8th grade year.
If a parent feels this placement is not appropriate for their child, they may request placement into Algebra Connections.

**All Algebra Connections students are eligible for an opportunity to advance a level, should they be interested.**
Standardized assessment scores from either the Algebra Prognosis or the Algebra Aptitude will be utilized to determine whether a student advances.

Successful performance in higher levels of mathematics at the middle school level require students to apply quantitative and abstract reasoning rather than just learned mathematics skills.

The process during which individuals grow from concrete thinkers to abstract “reasoners” occurs over time. As a result, student aptitude is a critical component when making decisions for appropriate placement of students in mathematics programs and courses.

Scores from these assessments are valid, reliable, and norm-referenced.
Opportunity for Advancement

For students initially placed into any of the classes below, an opportunity to advance a level is available. Advancement will be based on whether a student’s score meets the corresponding criteria for the standardized assessment as outlined below.

**Grade 6:**
- For students initially placed in Math 6 and who would like the opportunity to advance into Foundations of Pre-Algebra 6, a score of **75 or higher** on the Algebra Prognosis is required.
- For students initially placed in Foundations of Pre-Algebra 6 and who would like the opportunity to advance into Pre-Algebra 6, a score of **85 or higher** on the Algebra Prognosis is required.

**Grade 7:**
- For students initially placed in Math 7 and who would like the opportunity to advance into Pre-Algebra 7, a score of **80 or higher** on the Algebra Prognosis is required.
- For students initially placed in Pre-Algebra 7 and who would like the opportunity to advance into Algebra 7, a score of **90 or higher** on the Algebra Prognosis is required.

**Grade 8:**
For students initially placed in Algebra Connections and would like the opportunity to advance into Algebra 8, a score of **90 or higher** on the Algebra Aptitude is required.
Selecting the Opportunity for Advancement

Should a student be interested in level advancement, they will need to complete the survey that will be included in their placement notification to help schedule sitting for the assessment. Tentatively, testing would take place during the window of July 13th - 30th. Multiple dates/times will be available to best accommodate family schedules.

A confirmation email, with the date and time of the assessment, will be sent to the email address included in the survey. Additionally, the student/parent will also receive guidance on the safety precautions that the district will be taking when testing students (CDC and State guidelines will be followed).

Once assessments have been scored, the student/parent will be notified if their score met the criteria for advancement. If it did, this information will be passed along to Mrs. Stanton at BCMS, who will update the student’s schedule for September. If the student did not meet the criteria, they will remain in the course indicated in their initial placement notification.
Students/parents will be notified of placements via email communication by early July.

As part of that notification, a survey will be included for those students with courses that are eligible for advancement.

Please be sure to review the information below when determining whether or not an accelerated level is appropriate:

**Grade Level Courses:** are more teacher-led, real life application based courses. They provide more concrete instruction with more opportunity for practice and review.

**Accelerated Courses:** are more student-driven, inquiry based courses that apply new learning at higher levels using more complex mathematical numbers and operations.

**Most Accelerated Courses:** are fast-paced and rigorous. They prepare students to take high school level courses while still in middle school.

- Should a student choose to sit for the assessment, they will need to complete the survey.
- If the student/parent feel the initial placement is appropriate, no further communication is necessary.
- If the student/parent feels the initial placement is too advanced, they may contact Mrs. Anderson to request a change of level.
Math Course Sequences at BCMS

5th Grade Mathematics

- Replacement Resource Math 6
- Math 6
- Foundations of Pre-Algebra 6
- Pre-Algebra 6

- Replacement Resource Math 7
- Math 7
- Pre-Algebra 7
- Algebra I

- Replacement Resource Math 8
- Algebra Connections
- Algebra I
- Geometry

- 5th Grade Mathematics
- Algebra I
- Geometry
- Álgebra II

*ALL BCMS math sequences enable students to meet HS graduation requirements*
Math Course Sequences at Somerville High School

Mathematics

Somerville High School requires three years of mathematics for graduation. Elective courses are also available. The mathematics course sequence is aligned with the Common Core State Standards for Mathematics, district curricula and the statewide assessment system.

Mathematics Sequences
Students may change levels at year’s end based on performance

- **Algebra 1**
- **Geometry**
- **Algebra 2 CP**
- **Advanced Algebra**
- **PreCalculus CP**
- **Statistics CP**

- **Geometry CP**
- **Algebra 2 CP**
- **PreCalculus CP**
- **Calculus CP**
- **Statistics CP**

- **Geometry H**
- **Algebra 2 H**
- **PreCalculus H**
- **AP Calculus AB**
- **AP Calculus BC**
- **AP Statistics**
- **Statistics CP**

- **Algebra 2H**
- **PreCalculus H**
- **AP Calculus AB**
- **AP Calculus BC**
- **AP Statistics**
- **Statistics CP**
This presentation will be available on the Stony Brook, BCMS and District websites.

Should you have additional questions, please don’t hesitate to reach out:
  janderson@branchburg.k12.nj.us

Thank You!