Briarcliff Middle School
Mathematics Program

During the school year, questions often arise regarding Middle School Math, placement, and the progression of courses. Below you will find some information to help you understand the process as we partner together to make the best decisions for your child.

6th Grade Math

Grade 6 Math classes are not leveled; however, the teacher differentiates the curriculum to meet the needs of all learners. The teacher also provides enrichment activities, computerized self-paced programs and challenge questions for students who may finish early, have a passion for the subject and enjoy working through complex, rigorous mathematical challenges. These challenges often extend into algebraic concepts and the New Math Standards for grade 7 and beyond.

Testing

On **Thursday, April 19, 2018,** the 6th graders will take the Iowa Aptitude Test for Algebra 1. The *Iowa Algebra Aptitude Test* provides information on whether a student is ready, with respect to their cognitive development at that time, to *grapple* with problems that are abstract. It also indicates whether a student is ready to move forward with less scaffolding by the teacher. There are four parts to the *Iowa Algebra Aptitude Test*. Each part focuses on an essential skill needed for an Algebra course:

- Pre-Algebraic Number Skills and Concepts
- Interpreting Mathematical Information
- Representing Relationships
- Using Symbols

On **Thursday May 17, 2018,** the 6th grade students will take The *Briarcliff Diagnostic Assessment*, which is designed to confirm the *Iowa Algebra Aptitude Test* findings, to test a student's foundation of Math 6, and most importantly to see if the student has taken advantage of opportunities for challenge beyond meeting the New Jersey Math Standards for Grade 6. Topics on the *Briarcliff Diagnostic Assessment* include:

- Number Sense (fractions, decimals, integers, radicals, exponents, order of operations).
- Probability concepts including, but not limited to, independent & dependent events, permutations, combinations, and factorials.
- Data Analysis.
- Solving Equations & Inequalities.
- Geometry (the coordinate plane, planar areas, surface areas, volumes, angles).
- Ratios & Proportions (including percents).

- Algebraic Expressions (simplifying and evaluating).

The *Briarcliff Diagnostic Assessment* provides further information for assessing whether a student is prepared to enter Algebra 1. It presents questions and problems for students to solve, showing that they have a deep understanding of the concepts taught in sixth grade, and can apply & extend these concepts to other situations, often requiring abstract reasoning and not simply applying a learned algorithm. That is, students will need to answer questions that have not been explicitly taught in class, but draw upon skills, concepts, and habits of reasoning learned in class. Often these questions are drawn from math concepts that are provided in enrichment activities or *Challenge Questions* offered to students. Students who are interested in exploring the topics on the assessment, can review sample questions on our website or read mathematical theory books which are available in the school and other libraries.

Placement Rubric:

In addition to testing, academic achievement in the classroom is also considered by using marking period averages. Employing all three of these components and applying the rubric below, placement is determined for 7th grade math.

Math Placement Matrix – Grade 6 to Grade 7

Criteria	0	1	1.5	2	2.5	3	3.5	4	4.5	5	Total Possible Score
Briarcliff Diagnostic Assessment	0-19	20-21	22-23	24-25	26-27	28-29	30-31	32-33	34-35	36-40	5x2=10
Algebra Readiness Assessment	0-29	30-34	35-39	40-41	42-44	45-46	47-49	50-52	53-55	56-60	5x2=10
Marking Period Average (MP1, MP2, MP3)	0-80	81-82	83-84	85-86	87-88	89-90	91-92	93-94	95-96	97-100	5

Using this rubric with a 25 point total, placements are made according to a student's individual total: Students who score 22/25 are placed in Algebra 1ab. Students who score below 22 are placed in Algebra 1a.

7th Grade: Algebra 1a or Algebra 1ab

The two courses are similar except that Algebra 1ab is fast paced and covers the entire high school Algebra 1 curriculum during the school year. Algebra 1ab will progress from Chapter 1 to Chapter 13 in the Algebra textbook, as well as infuse foundational 7th grade topics into the curriculum. The students in the Algebra 1ab course will be required to take the Algebra 1 PARCC test at the end of 7th grade. Successful completion of the PARCC is required for High School graduation.

Students in Algebra 1a will cover Chapters 1 through 6. This will allow more time for students to delve into the material and acquire a deep understanding of Algebra

Concepts along with infusing Math 7 foundational skills. These students will take the Grade 7 PARCC.

8th Grade: Algebra 1b or Honors Geometry

Students who took Algebra 1ab will move into Honors Geometry during 8th grade. They will take the Geometry PARCC in the spring of 8th grade.

Students who took Algebra 1a will take Algebra 1b covering Chapters 7 - 13 in 8th grade, completing the high school Algebra course. Students will take the PARCC Algebra 1 test in the spring of 8th grade.

Frequently Asked Questions:

Are there other opportunities for advancement after Grade 7? You will hear us often say, "No door is ever permanently closed." As educators, we recognize that students progress at different rates. To that end, we have made available several opportunities for students to advance, should they be ready. Grade 7 placement is only the first of many. These are addressed below.

What if my child just had a bad day during the tests? We understand that tests are not the end all, but they have proven to be the best indicator of student readiness and success in Algebra 1. That being said, we will always look at a student's progress during the course of each year. If a student has been misplaced, the teacher will make the recommendation that placement be adjusted.

What if my child feels ready to accelerate at the end of Algebra 1a? There are many opportunities *after* 7th grade for students to accelerate when they have the desire and readiness. Students who are not initially recommended for Algebra 1ab have two pathways through which they can gain access to Geometry in 8th grade:

- Enroll in the Mountain Lakes Summer Academy Algebra 1 course (120 hours) and earn an A- or above.
- Independently study and sit for an Algebra 1 final exam, earning an A-, or above.

Students who show readiness for honors level work at the completion of Algebra 1b will be placed into Honors Geometry in 9th grade.

Additional opportunities for advancement also exist through the high school programs.

- **Example:** An Algebra 1a 7th grade student takes Algebra 1 during the following summer and earns an A- or above. The student may take Honors Geometry in 8th grade.

- **Example:** A student takes Algebra 1b in 8th grade and takes Geometry in the summer, receiving an A- or above. That student may take an Algebra 2 course in 9th grade.

What if my child is having difficulty in an Algebra class? Briarcliff offers support for all students. Some classes have two-math teachers team teaching and class is differentiated with heightened attention to learning styles, progress, product, and instruction.

The Briarcliff Middle School website will house this information and other pertinent information on the math program. Our teachers are always available for extra help and to confer with parents.

We look forward to working with you and your child this year!

Dr. Fran Schlenoff
Briarcliff Principal