



Philosophy

A Montessori middle school is an environment designed to meet the needs of the whole adolescent as they move through the third plane of development. Equal attention is given to both the social-emotional and academic development of the young adult. In addition, strong consideration is given to the well-being of the whole community. Programmatic decisions must be made with an emphasis on these two things - academic/social-emotional health of the individual *and* community.

In keeping with this holistic approach, and as an extension of the Montessori Method in elementary math, Sterling Montessori Middle School students will be grouped by grade level for their scheduled math time rather than aptitude. Studying math concepts with a peer group creates opportunities for students with varying abilities and experiences to contribute, collaborate, and otherwise benefit from each other across a spectrum of both social and academic activities.

Math is more than the correct answer to a problem. It is a process that involves multiple strategies, analysis, concrete and abstract understanding, proofs, and integration with science and the humanities. Our goal is to create an environment that fosters this kind of deep mathematical understanding.

In order to ensure our rigorous math programming is equitable and accessible to all, we will move to a single math grouping for each grade in the Middle School. By creating a single math track, we will allow for what Stanford Professor of Math Education Jo Boaler terms “Relational Equity” - a development of respectful relationships across cultures and genders made possible by a mathematical approach that values different insights, methods, and perspectives in the collective solving of particular problems.

Curriculum

Seventh-graders will be in a Math 7 group and will cover what was previously termed “7+.” All eighth-graders will be enrolled in High School Math 1 (HSM1) and cover the Math 1 curriculum. In addition to core topics, students will engage in practical application activities that encourage critical thinking, collaboration, and an opportunity to use math skills in a creative way.

Class discussions incorporate a Socratic approach to topics, allowing students with different intelligences to engage in the subject matter in a meaningful way. In addition to exploring concepts on a deeper level, skills such as showing the steps to a solution, critiquing various strategies, referencing texts and notes, organization, working collaboratively with peers to

develop their own metacognitive thinking skills, and knowing when to seek the help of others are all hallmarks of the Middle School math program.

Differentiating

All math learning experiences will be accessible for all students. For students that have gaps in prior knowledge, instructional tasks will allow for these students to perform on grade level math in a more concrete fashion. These tasks will simultaneously allow students who have mastered a fundamental skill room to move to more abstract thinking and generalizations. This learning will be facilitated by one-on-one and small group sessions throughout the school day.

Suggested Reading

Multiple Intelligences: New Horizons in Theory and Practice by Howard Gardner

From Childhood to Adolescence by Dr. Maria Montessori

Limitless Mind: Learn, Lead, and Live Without Barriers by Jo Boaler

The Stories We Tell by Valerie Faulkner

“Overemphasis on the competitive system and premature specialization on the ground of immediate usefulness kill the spirit on which all cultural life depends, specialized knowledge included. It is also vital to a valuable education that independent critical thinking be developed in the young human being, a development that is greatly jeopardized by overburdening him with too much and with too varied subjects (point system). Overburdening necessarily leads to superficiality. Teaching should be such that what is offered is perceived as a valuable gift and not as a hard duty.”

-Albert Einstein

"Education for Independent Thought" New York Times, Oct. 5, 1952

Dear Families of '21/'22 MS Students,

I would like to provide some additional information regarding the changes to the Middle School math policy which were sent last week in the Weekly Message. More information and details on these changes can be found in our updated [Parent Handbook](#) on our website (Policy 1, Page 85 "Math Placement Policy").

Beginning next school year (21/22), all seventh-graders will be in the same Math 7 class and will cover what was previously termed "7+." All eighth-graders will be enrolled in High School Math 1 (HSM1) and cover the Math 1 curriculum. In addition to core topics, students will engage in practical application activities that encourage critical thinking, collaboration, and an opportunity to use math skills in a creative way.

To account for this transition, we have secured a math consultant to begin professional development for our teachers and will utilize our Middle School math specialist Tom Keeler to help provide support to students who will need practice with foundational skills *and* those students who are ready for more abstract thinking around core concepts.

If you are interested in reading more about our approach, please see the attached philosophy letter.

Best,
Justin Tosco
Director of Middle School

FOR 6th GRADE STUDENTS CURRENTLY ENROLLED IN MATH 7+:

Dear Family,

You are receiving this email because your child is currently taking Math 7+ with Tom Keeler. In light of the recent math policy change, we will no longer be offering an advanced math track at Sterling.

However, we understand that your child has already completed the course and we'd like to give you the chance to be grandfathered into continuing the advanced math course as long as they get a 5 on their 6th grade EOG (you should receive these scores in the next week or two). What that means is that:

- they will take Math 1 next year as a 7th grader
- they will take Math 2 in their 8th grade year
- classes will be taught by Tom Keeler
- expected class size for each of the next two years will be about 20 students

You may choose to not have your child move forward with the advanced math track in which case they will be in our standard math class with students in their same grade. If you'd like to read more about that math class, information and details on these changes can be found in our

updated [Parent Handbook](#) on our website (Policy 1, Page 85 "Math Placement Policy"). In addition, I've attached background information about Middle School math at Sterling.

Please complete this [one-question survey](#) to let me know if you'd like your child to continue on the advanced math course until graduation or opt into our new MS math class that all other students will be enrolled in.

FOR 7th GRADE STUDENTS CURRENTLY ENROLLED IN MATH I:

Dear Family,

You are receiving this email because your child is currently taking Math 1 with Tom Keeler. In light of the recent math policy change, we will no longer be offering an advanced math track at Sterling.

However, we understand that your child has already completed the course and we'd like to give you the chance to be grandfathered into continuing the advanced math course. What that means is that:

- they will take Math 2 next year as an 8th grader
- this class will not be administered by a Sterling staff member
- your child will be enrolled in Math 2 via North Carolina Virtual Public School [NCVPS](#) (along with about 6-7 other Sterling students)
- they would take the math course on the computer with a NCVPS instructor
- a Sterling staff member will act as their faculty guide to support their NCVPS work

You may choose to not have your child move forward with the advanced math track in which case they will be in our standard math class with students in their same grade. If you'd like to read more about that math class, information and details on these changes can be found in our updated [Parent Handbook](#) on our website (Policy 1, Page 85 "Math Placement Policy"). In addition, I've attached background information about Middle School math at Sterling.

Please complete this [one-question survey](#) to let me know if you'd like your child to continue on the advanced math course until graduation or opt into our new MS math class that all other students will be enrolled in.