



Dear Rising Kindergarten through 5th Grade Families,

Please settle in to read about our commitment to the math program and the many approaches we are taking from K-5 at SFS to immerse our students more deeply in math education. As you may be aware, our [Strategic Plan](#) includes an initiative calling for *Empathy in the Age of Acceleration*. This initiative inspires us to provide human-centered, interdisciplinary and project-based opportunities in technology, coding, math, engineering, design and science. This communication will focus specifically on the commitments we are making to math (with a sprinkle of science noted) for the 2018-2019 school year.

### **Commitment #1: Math Curriculum**

We are thrilled to announce that SFS has adopted the rigorous and compelling Math Curriculum K-5, *Contexts for Learning Mathematics (CFLM)*, that will serve as the foundation for our program. This curriculum, published by Heinemann, was developed under the leadership of Catherine Twomey Fosnot, a professor for many years at City College of New York who founded Mathematics in the City, an internationally recognized center for math Professional Development K-8.

CFLM aligns with the Common Core Standards for math. The aim of the Common Core Standards is to establish clear, consistent guidelines for what every student should know and be able to do in math and English language arts from kindergarten through 12th Grade. The Common Core focuses on developing the critical-thinking, problem-solving, and analytical skills students will need to be successful. The standards also provide a way for teachers to measure student progress throughout the school year and ensure that students are on the pathway to success in their academic careers.

CFLM meets our goal of aligning with Common Core Standards and also provides project-based approaches in math.

#### Process of determining CFLM:

In 2016-17, all K through 8 math teachers and Learning Specialists met monthly to compare our current program to the Common Core Standards and to discuss math models, teaching approaches, and resources used to achieve our goals. Middle School math teachers met separately to review available math curriculums and chose [Open Up Resources](#) - the highest-rated math program on EdReports. These rich math conversations continued into the 2017-18 school year for the Kindergarten and Elementary math teachers, and led us to series of observations at Bay Area schools to observe math in action, and to compare the programs used at other independent schools. We had presentations from multiple programs to help us further understand the approaches used in each, before selecting *CFLM*.

Why CFLM?:

*Contexts* provides carefully crafted math situations to foster a deep conceptual understanding of essential mathematical ideas, strategies, and models. By setting lessons in a context that makes sense to students (such as building benches, measuring for an art show, and creating a T-shirt factory), they can consider strategies for approaching problems. These authentic contexts provide opportunities to foster the use of mathematical models as thinking tools, tenacious problem solving, and the reading and writing of mathematical arguments and justifications to ensure the development of a positive growth mindset. The contexts, or situations, that each unit poses allow children to feel like “real mathematicians” at work.

Each mini-lesson is crafted with strings of related problems designed to support a repertoire of mental math strategies for solving. Students learn to apply the models as they develop numeracy and automaticity of basic facts. To understand more about the models students learn and apply, please view this link: <https://www.youtube.com/watch?v=y3f5VpFjnvY>

### **Commitment #2: Lower School Math Coordinator**

Molly Treadway and Maggie Day have each been piloting *Contexts* in their classrooms for the last year plus. Maggie Day has also consistently taken the lead with math curriculum and faculty professional development, most recently serving as a key member of our Instructional Leadership Team. Before Maggie came to SFS thirteen years ago, she taught and led curriculum implementation, so she is the ideal leader to work with her colleagues on implementing our new program. For these reasons, Maggie will fill a newly developed position of Lower School Math Coordinator for the 2018-19 school year.

### **Commitment #3: Math Specialists in 2nd -5th Grade**

Elementary lead teachers are educational versions of “Renaissance Folks.” They teach every academic subject including social emotional learning. We recognize that math deserves a focused approach across the grades and so, we have adjusted teaching positions for next year.

In addition to serving as the Lower School Math Coordinator next year, Maggie Day will teach math in the 2nd and 3rd Grades. In the 4th & 5th Grades we have created a new position: 4th & 5th Grade Math & Science Teacher. We have hired Emma Martin to fill this position; a candidate who is specialized in both subjects and who aligns with SFS’ mission and Strategic Goals. Please see Emma Martin’s bio [here](#).

### **Commitment #4: Professional Development for all teachers working with math**

Last week, Janan Hamm, a trainer for *CFLM*, provided two days of training with our K-5 teachers and Learning Specialists (see Janan’s bio [here](#)). We are currently coordinating an intensive and ongoing plan for professional development through the summer and during the next school year. A significant amount of time and resources will be devoted to training our math instructors because, to be clear, *CFLM* is not the approach we learned to do math with, nor likely you. *CFLM* requires teachers and parents to let go of the way we were taught and understand the importance of developing mathematical thinking versus just computational fluency. *CFLM* is structured to develop both mathematical thinking and computational fluency. Many of the strategies, models and mathematical discussions foster deep conceptual understanding and algebraic reasoning. This approach will provide a

strong foundation for our students in middle school and high school math. You can hear more about this from Catherine Twomey Fosnot: <https://vimeo.com/137299162>

We understand that this is a lot to digest (especially in May!). You can anticipate further parent/guardian education in the fall. In addition to our regularly scheduled Back to School Night, we will have a Math Parent Education event. Stay tuned for an updated calendar that will include this.

Thank you so much for your partnership as we continue to grow our math program. We hope that you can sense our excitement about all of this! For those of you who are interested in reading even more about math at SFS, we have attached a letter from Upper School Head, Nancy Nagramada, that outlines how we are expanding our middle school math program.

Sincerely,

Maggie Weis, Lower School Head

Maggie Day, Lower School Math Coordinator starting 2018-2019

Elyse Wolland, Learning Services k-5