# **Orchard Farm Elementary School**



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# Dear Parents,

The intent of this letter is to provide information regarding the Singapore mathematics program adopted by the Orchard Farm School District. The 2011-2012 school year marks the initial year of implementation for Singapore mathematics in grades K-5. Many of you were able to attend an informational meeting for parents where Singapore math methods and examples were provided. Thank you for your support and interest in this exciting opportunity for our students! For those of you who were not able to attend, there will be additional opportunities this year for you to learn more about the program and how to support your child. Our staff is working to create parent resources and provide supports throughout the year to help our community support our students as they learn Singapore mathematics.

### • What is Singapore mathematics?

Singapore mathematics is an approach to mathematics that began in Singapore. It has gained attention in the United States for its research proven results and its approach in developing a firm understanding of mathematical concepts. It moves students through a process of understanding math concepts through concrete, pictorial, and abstract learning processes. Singapore math helps students build a firm understanding of number sense and fluency with basic number facts. This foundation then allows students to apply these skills directly to problem solving situations and forces students to use higher-order thinking skills. Students use the model drawing method as a way to apply their knowledge of basic math skills to problem solving situations.

# • Why has Orchard Farm chosen to use Singapore mathematics?

The Singapore math program shows proven results in raising student achievement. The Orchard Farm School District is committed to the success of our students and believes it is important to embrace new opportunities to support our students. According to the TIMSS report (Trends in International Mathematics and Science Study), students in Singapore who use this approach to math score consistently at the top in the area of mathematics internationally. Additionally, areas of the United States who use Singapore math methods have demonstrated higher student achievement scores on the NAEP (The National Assessment of Educational Progress) assessment in the area of mathematics. We believe this approach to mathematics is the next step we need to take to support our students and raise their mathematics achievement scores.

#### • What does the daily math lesson look like for my child?

The daily math lesson provides all students with engaging and hands-on opportunities to explore mathematics concepts. The lessons rely on questioning techniques that require students to think quickly, use mental math skills, and problem solving skills. The typical daily lesson includes the following components:

Mental Math:	<b>Teacher Directed</b>	Activity:	<b>Problem Solving:</b>	<b>Independent</b>
Mental Math: -Students rely on mental math skills to establish and maintain fluency in basic math facts.	Teacher Directed Instruction: -Teacher directed instruction for a specific math skill helps students build understanding of	Activity: -Students participate in guided activities to support the math concept taught for the day. This provides students	Problem Solving: -Students apply knowledge of math skills to problem solving situations. Model drawing is the preferred strategy for this	Independent Practice: -Students are given independent math practice for the specific skill taught that day. Teachers are able
	math concepts and vocabulary.	with guided practice opportunities.	portion.	to support students' individual needs during this time.

### • How can I provide support as a parent?

Students will be exploring multiple methods of solving mathematical problems with Singapore math. Students begin by using methods that help demonstrate a firm understanding of the concept before moving to the traditional algorithms. It is important to allow your child to try multiple methods and ensure they understand the mathematical thinking behind a concept before asking them to complete problems using traditional methods. If you have questions about specific methods you see students using, please feel free to ask your child's teacher for additional support. We have a wonderful team of teachers who is working to develop parent support materials and are enthusiastic about helping our community understand Singapore math.

Additionally, homework plays an important role in this program. Students will be given time during class to complete independent work. However, work that students are not able to finish during that time will be assigned as homework. This means that students may have homework each night of the week, but it will vary based on what students were able to complete during independent work time. Please review teacher communications carefully regarding how your child will communicate their math homework needs each night.

As students will regularly bring home math homework and materials, we ask that you help your child return their math materials to school each day. Students are expected to come to class prepared, which means they will need their math workbooks to travel safely between school and home each day. This also provides a wonderful opportunity to help our students establish routines that promote individual responsibility and organization skills.

As we begin the 2011-2012 school year, we want to ensure that our students receive a quality education each day. We are excited to offer the Singapore mathematics approach and watch our students grow as mathematical thinkers. Our teachers are dedicated to supporting students, parents, and the community as we learn the benefits Singapore math offers. Please don't hesitate to ask questions this year as you work with your child to support their learning. We believe it is important for school and home to work as a team. We look forward to working with you this year! Thank you for your support!

Sincerely,

**OFES** Faculty