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Singapore Math is intentionally redundant. You can say that again!

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Since the 1960's, Singapore has been a hallmark of math instruction. This country's students repeatedly rank at or near the top of the international **mathematical rankings** and outperform their peers in other countries. The differences in "Singapore Math" are significant when compared to **math curriculum and instruction** in the United States. These differences have prompted many US states and school districts to investigate and adopt curriculum based on the ***Singapore Math*** concepts, hoping for increased student understanding and achievement.

What makes *Singapore Math* different?

- commitment to differentiation
- careful and comprehensive assessment to understand students' mastery of concepts
- slower pace to promote a deeper understanding of mathematical concepts
- increased amount of time to fewer concepts
- detailed instruction to introduce concepts
- student practice via questioning, model drawings, hands-on manipulatives, and problem solving
- connections across mathematical strands reinforce how mathematical skills are related
- multi-grade approach to math curriculum makes mastery at one grade level crucial to student success in future grades
- as foundational skills are developed, the instructional pace increases in the higher grades as students master complex concepts more quickly.

Teachers, parents, and school officials often mention the drawback of other math programs is that they are "an inch deep and a mile wide;" that is, they cover many concepts with very little depth. *Singapore Math* is completely different. The curriculum is committed to a detailed, deep understanding of fewer concepts as a way for students to truly master the skills being taught. This redundancy can be highly beneficial to students and makes it less likely that they will have to be remediated on similar topics in future grade levels.

Consider the curriculum's approach to a *single activity* for teaching the multiplication table of “8” to third grade students. This activity is part of a larger unit designed to teach and reinforce the multiplication tables in multiple ways. Teachers are encouraged to have students:

- Use centimeter graph paper to color in 10 rows of “8” and then write down the facts for multiplication by “8” in alignment with the arrays.
- Count by “8.” Since this may likely be a challenge to most students, teachers can explain (after initial practice) that students can add 10 and then subtract 2 each time in order to count by “8.”
- Circle the numbers on a hundreds chart that they land on when counting by “8” and identify any patterns present on the chart.

Often in elementary math instruction, multiplication facts are learned by rote memory with little emphasis on the associated mathematical patterns or relationships. **What can be interpreted as redundancy in a curriculum based on *Singapore Math* is actually a method to promote deep understanding of a single concept.** With other approaches for math instruction it may appear that students quickly learn and master the multiplication table for “8.” But do they truly understand the mathematical implications of the multiplication? With *Singapore Math*, they most certainly do!