



Singapore Math

for US™

Singapore Math

**What is it?
And other FAQs**



Q: *What is Singapore Math?*

A: In the U.S., the term “Singapore Math” often refers to a collection of math teaching strategies common in Singaporean classrooms. Sometimes it describes the full math curriculum used in Singapore for grades K–6. Singaporeans do not use this phrase.

Q: *Why are people interested in Singapore Math?*

A: In an international assessment of student math achievement (the TIMSS Report), Singapore has been in the number-one spot since 1995.

Q: *What is the TIMSS Report?*

A: TIMSS stands for Trends in International Mathematics and Science Study (formerly Third International Mathematics and Science Study). The International Association for the Evaluation of Educational Achievement developed this study in order to measure international trends in student math and science achievement over a 4-year cycle. The study was first conducted in 1995, then again in 1999 and 2003; results of the 2007 study are expected on December 9, 2008. Participation of individual nations in the study is strictly voluntary. In all 3 years, Singaporean students scored at the top of the list. The U.S., by contrast, was 15th out of 45 in 2003 and in roughly the same place in the earlier studies. (Comparisons given here are based on 8th-grade scores, but in the 2003 study, when 4th-grade scores were also compared, Singapore topped the charts there as well.)

Q: *What makes Singapore Math such a strong curriculum?*

A:

1. Singapore Math emphasizes the development of strong number sense, excellent mental-math skills, and a deep understanding of place value.
2. The curriculum is based on a progression from concrete experience—using manipulatives—to a pictorial stage and finally to the abstract level or algorithm. This sequence gives students a solid understanding of basic mathematical concepts and relationships before they start working at the abstract level.
3. Singapore Math includes a strong emphasis on model drawing, a visual approach to solving word problems that helps students organize information and solve problems in a step-by-step manner.

4. Concepts are taught to mastery, then later revisited but not retaught. It is said the U.S. curriculum is a mile wide and an inch deep, whereas Singapore's math curriculum is said to be just the opposite.
5. The Singapore approach focuses on developing students who are problem solvers.

Q: *What are some of the biggest differences between Singapore Math and the more traditional U.S. approach?*

A: First, it's important to recognize that there is no single "U.S. approach." In this country, most curriculum decisions are made at the local or state level. In Singapore, the Ministry of Education determines what will be taught nationwide. That said, certain elements of the Singapore approach are distinctly different from what's typical in the U.S. Although some of these strategies may be used on their own in U.S. schools, it would be rare to find all of them in an American classroom that is not adopting or supplementing with Singapore Math. Examples include:

1. Model drawing and an emphasis on the concept of part-whole that precedes the teaching of model drawing
2. Mental math
3. Daily activities to build on teacher-directed lessons
4. "Look and talks" to build understanding of mathematical language
5. Number bonds, ten frames, and place value charts
6. The connection of pictures, words, and numbers

Q: *What are other important differences between the U.S. and Singapore that would have an impact on student achievement?*

A:

1. The country of Singapore is about the size of the city of Chicago.
2. Singaporean teachers are among the most respected professionals in their country.
3. Parental support for education is huge in Singapore.
4. Singaporean teachers get more training and have more prep time than most U.S. teachers. They also work longer hours, averaging 10- to 12-hour days.
5. Most Singaporean primary-school classes have 30–40 students.
6. Math classes are usually 60 minutes a day in Singapore.

Q: *What would you recommend in terms of training for schools wanting to supplement or adopt Singapore Math?*

A: Singapore Math is different enough from the typical U.S. curriculum that you can't just pick up a set of books and know what to do with them. A teacher who will be supplementing an existing curriculum with one or more Singapore strategies will need 1 to 5 days of training, not necessarily all on consecutive days. Full adoption would require 4 to 5 days of intensive training on strategies, grade-specific content, and product training as well as follow-up training for any challenges encountered in implementation. In either case, your school should plan on having a very well trained Singapore Math "go-to" person in the building to support other staff.

A Final Thought: More and more schools in the U.S. are using Singapore Math as their core curriculum. Others are using it for pull-out gifted and intervention programs or to supplement existing math programs. The fact that this approach is working well in such a wide range of applications certainly says something about the power of the program!

For information on training and on products to be used with Singapore Math strategies, visit SingaporeMathforUS.com or call SDE directly at 1-877-388-2054.



10 Sharon Road • Box 577 • Peterborough, NH 03458
Phone: 1-877-388-2054 • Fax: 1-800-337-9929
Visit our Web site: www.SDE.com