

Summarizing Singapore Math At City Academy

The Singapore approach to mathematics is a mathematical scope and sequence developed in Singapore, Asia. Having an emphasis on developing and maintaining a high quality educational framework, Singapore has consistently ranked as one of the highest in the world in areas of mathematics since the 1980s. Other countries have taken notice and visited Singapore to learn and model their method, which is now commonly referred to as Singapore math.

Singapore math is a natural choice for the mission of City Academy because it offers a challenging education that supports building mental fortitude and perseverance.

At its core, Singapore math guides students to cover concepts a few at a time, but in depth. It values teaching why and how concepts are structured using a three-step process: concrete, pictorial and abstract. Instructional texts use items such as bar models, pictures and place value chips to help explain why. Going deeper into the concept, the lesson switches to the abstract and uses algorithms, which are more efficient and relevant for higher-level thinking.

Singapore uses specific vocabulary and phrasing for the purpose of guiding students to think through the process, evolve step-by-step, and develop strong mental math ability. The best preparation for success in Singapore math is to have a mastery of math facts. Mastery means answers to basic computation – adding, subtracting, multiplying and dividing - come automatically to the student without him/her thinking of the answer. If there is a simple calculation, a student showing mastery can provide the solution almost instantly. Needing time to calculate the answer is not mastery. Developmentally, adding and subtraction should be mastered by Second Grade; mastery of multiplication and an understanding of division by the end of Third Grade.

Singapore math begins in First Grade at City Academy. Because the program spirals, students who transfer here after First Grade can expect to experience an adjustment phase to acclimate to the structure of Singapore math. Depending on their prior math knowledge, the adjustment will be brief for some, long for others.

In general, the pacing of Singapore math is fast. Students can anticipate a test about once a week on average. Supplementing the needs of enrichment or extra practice is achieved through corresponding texts at the discretion of the instructor. Each student is provided with a non-consumable textbook and a consumable workbook. Upon completion of the book or school year, students return the textbooks, but keep the workbooks. Any lost or damaged books beyond normal wear will result in the student needing to buy a replacement.

As the success of our past scholars invested in Singapore math have shown, using this method at City Academy has resulted in both high math aptitude and solid readiness for secondary school.