

Lower School Math Course Descriptions

Kindergarten

Students are introduced to math through a multiple-exposure program. The math program is designed to be useful, enjoyable, varied, and meaningful so that a strong mathematical foundation is formed. Concepts introduced include counting, numeration, measurement, geometry, patterns, data collection, calendar skills, graphing, and calculator use. Math concepts are enriched by hands-on games and activities to reinforce continuously skills that are taught and learned.

First Grade

Our Singapore Math program focuses on concrete, pictorial, and abstract skills, as well as model drawing and problem-solving strategies. This allows the students to approach math in a meaningful way and understand mathematical concepts first and then learn and use formulaic expressions. The curriculum introduces and reinforces counting, number bonds, addition and subtraction, numerical patterns, money, time, non-standard measurement, capacity, and beginner multiplication and division. Students are given daily opportunities to apply their skills to word problem and problem-solving activities.

Second Grade

Singapore Math provides the base for instruction in second grade math. Students build upon their knowledge of math through a combination of written activities, games, and manipulatives. Students develop skills in addition and subtraction facts, place value, money, time, geometric concepts, whole number operations, number stories, patterns, fractions, measurement, decimals, and place value. In addition to methodical development of fact power through the use of games, students will learn the important relationships between addition and subtraction and multiplication and division. Problem solving is part of each new concept and allows the students to apply their mathematical knowledge to a variety of situations.

Third Grade

Mathematics study in third grade utilizes Singapore Math's Primary Mathematics and is designed to equip students with sound concept development, critical thinking, and efficient problem-solving skills. Concepts are presented in a clear and sequential way to facilitate understanding and confidence. As new topics are introduced, learners consolidate new information with focused practice, while spiral progression allows students to build upon material taught in earlier grades. Concepts covered include: rounding and estimation, adding and subtracting whole numbers through 10,000, multiplication and division, data collection and analysis, probability, geometry, fractions, time and money, area, perimeter, volume, and measurement of length, weight, and capacity in both metric and standard units. Students' research and problem-solving skills are active throughout the year, utilizing model drawing and other strategies to demonstrate a clear understanding as they work through single- and multi-step word problems.

Fourth Grade

Fourth grade utilizes the Singapore Primary Mathematics program, which enables students to encounter math in a meaningful way and translates mathematical skills from the concrete to the abstract. Skills are developmentally progressive from previous grades and guide students to develop logical thinking and critical problem-solving skills. Students learn to identify alternative algorithms, and cover geometric figures, multiplication and division, number sentences, decimals, estimation, computation, measures of angles, fractions, chance and probability, perimeter and area, percent, reflections and symmetry, shapes, weight, volume and capacity, and rates.

Fifth Grade

In fifth grade mathematics, students continue with the Singapore Primary Mathematics program and progress in their math education while drawing upon the knowledge taught in previous levels. Students are guided to a sound concept development, critical thinking, and efficient problem-solving skills. Mathematical concepts are presented in a clear and sequential way to facilitate understanding and mastery. Students encounter work with number theory, estimation and computation, geometry, multiplication and division, fractions, decimals, percent, exponents and negative numbers, fractions and ratios, algebraic concepts, coordinates, area, volume, capacity, probability, ratios, and rates.