

Mathematics at Prince of Peace Catholic School

Our math program content resembles what you might find in many challenging schools following a curriculum based on **NCTM** and **State Standards**. But our incredible math success rests on outstanding teaching as well as recent enhancements to our program including the addition this year of **SINGAPORE MATH**.

What's Different about Prince of Peace?

When we think about a math program, (as author Stephen R. Covey says) we “begin with the end in mind.” Perhaps more than in any of the other subjects, it is important to begin math this way if we want to end in the right place.

If you have a Kindergartner or First Grader, you might think it’s too early to think about getting into college. But students who plan to study any of the sciences or engineering in college, are planning for honors high school math and that means completing Honors Algebra I by the end of 8th grade. All our local high schools – including St. Joseph’s Catholic High School in Greenville – accept Prince of Peace Catholic School credit for Honors Algebra I with a “C” or better.

Middle School - Getting Ready for High School

Beginning in 5th grade and continuing through 7th, we use the outstanding middle school math program published by McDougal Littell called simply “Math Course 1, 2, and 3.” This newly published program (2007) presents math concepts in an easy to teach and easy to follow format. It integrates online flash video skill reviews, practice exercises, and even pre-skill exercises with **EVERY CHAPTER**. When students are finishing homework or studying for a test, for example, they can logon to the chapter and unit of their textbook online to see an instructional presentation.

What if your child cannot achieve at this accelerated level before high school? We offer an 8th grade Honors Pre-Algebra that prepares students for Honors Algebra I in 9th. They can still do honors math in high school if they’re motivated.

Elementary Math: The Key to it All!

But before taking on middle school math in 5th, students in 1st through 4th grades must have achieved mastery in three core areas of mathematics first:

1. Basic calculation skills (math facts and multiplication tables),
2. Broad-based skills involving more challenging calculation problems like long division and the mastery of the use of fractions, decimals, or percentages, and
3. Problem solving skills, where students learn to translate complex word problems into mathematical expressions (equations) using analysis and modeling.

To accomplish these three goals of elementary mathematics, Prince of Peace Catholic School adopted **SINGAPORE MATH** in Fall 2010 for Kindergarten to 3rd grade classes. This cutting edge math

curriculum incorporates what experience and research show to be the most effective math instruction for elementary school students *in the world*. We're adding Singapore Math to our 4th Grade curriculum in 2011 to complete our elementary program. Singapore Math helps students master the "facts" and their multiplication "tables." In first and second grade, students practice

mental math and timed math facts (called math sprints) with a goal of completing 65 addition or subtraction facts in 5 minutes or less with 100% accuracy. In third and again in fourth grades, students master the multiplication tables up to 12 x 12 and math sprints of 20 facts in one minute. Though we use all kinds of real-world counting manipulatives and tools to help children grasp concepts, students who are still "counting on their fingers" by grade 5 will rapidly fall behind their peers.

Elementary School – Mastering All the Basics

Singapore Math is still not enough, though, for math excellence. We enhance learning with a program called Simple Solutions developed by a Catholic school math teacher in Ohio. In 2nd through 5th grades, students do daily Simple Solutions lessons where they review concepts covered (for example) last month and preview lessons they'll see perhaps next month. This way, they're constantly keeping a variety of skills in the forefront of their minds. Simple Solutions calls it "distributed practice." Good teaching, structured review and purposeful practice make for math success for all students. It means "minutes a day, and mastery for a lifetime."

Finally, we add a little ("no-pressure") fun to math instruction with student participation in an online math competition called "[MATHLETICS](#)." This program originated in Australia, but students from all over the world participate. Enrollment is free to a student at Prince of Peace Catholic School. Our students find fun competition with other students in solving grade-level computation problems builds math skill and turns learning into a game without the stress of making the grade. At the same time, though, our teachers can track progress because they can oversee student skill development over time. This insures that while the students are having fun, they're also learning and being challenged at an appropriate level.

Goal oriented, clarity of method, plenty of practice, outstanding teaching and materials, and a little fun and no pressure competition – we think this adds up to MATH SUCCESS for all students.