



THE FACULTY CORNER

FROM THE ANACAPA SCHOOL MATHEMATICS DEPARTMENT. . .

This is an exciting year at Anacapa! The growth of the school has brought a new level of energy to every aspect of the school, including academics. Our math classes have been challenging, and students have been working hard to meet our expectations. Anacapa's math curriculum is versatile and provides immediate application to the usefulness of the subject we both love!

Pre-Algebra

The Pre-Algebra class is 17 students strong, and we have been working our way through exponents, solving equations both mentally and on paper, and attacking problems with tools the students are being equipped with. The focus of the class is geared toward learning new topics and mastering old ones.

Algebra I

In Algebra I, students are getting ready for their house projects, where they will be creating floor plans and elevations, as well as constructing scale models to be entered into the Santa Barbara Fair & Expo in April. This house project will begin right after Thanksgiving. We will discuss and apply square footage, volume, slope, and scale as students gain a firm understanding of what goes into a building project. Of course, the underpinning of much of this work is an understanding of the elements of mathematics!

Geometry

In Geometry, we are forging ahead into the exciting challenges of this discipline while reviewing algebra and extending the use of algebraic techniques to solve and better understand geometric relationships. The students have been introduced to the undefined terms and postulates of Euclidean Geometry and are now starting to see how these are used to prove theorems. It's been a bit of a mind-bender for them to take a closer look at how they use inductive and deductive reasoning to make sound conclusions about themselves and the world. In Geometry, we're asking our students to be very clear as to why each step of an argument is justified so that their overall argument is sound. Challenging, but interesting material.

Business Algebra II

In Business Algebra II, students have been focusing on Business Plan basics and have just begun intertwining the business and math subjects together. It's not always easy (and sometimes it's a bit of a struggle), but in time, the students will be able to apply the tools from each subject into a cohesive whole. Encouragement and team work are required, and each team's final business model, which will be complete in May 2013, will be judged (graded) by business professionals from the community. It will be an exciting and challenging year for this lively bunch!

(over please)

Pre-Calculus

In Pre-Calculus, we have been busy reviewing topics from the past several years, and now we are applying these skills to a more challenging problem set. Many types of graphs, the reasons behind the subtle changes, and the real world application of them are manipulated each class period. The main focus of this class is to problem-solve in new and daring ways so that students get a chance to try new things with self-discovery. So far, they are still learning to take these chances, but my hope is to increase their confidence throughout the school year.

Calculus

In Calculus, we spent the first month using the tools of algebra, geometry, and pre-calculus to expand the students' understanding of important concepts such as functions, inverses, continuity, and compositions. We have also introduced the idea of limit—in particular, the limit known as the first derivative—and we have explored its use as a tangent to a given function. We have also begun to look at the first derivative itself as a function, and we have introduced techniques for finding the derivative of polynomials, rational functions, and the derivatives of quotients and products of functions, as well as their compositions.

Resources for Help

Anacapa offers several resources to help our math students. There is Homework Club on campus from 3:30 to 4:45 on Tuesday and Thursday each week. In addition, each math teacher has office hours to assist in whatever way possible (see below), and the Khan Academy is a fantastic online resource for students and individuals. This Web site offers lessons from simple addition to Calculus, and there are also exercises to attempt for the majority of the lessons, with immediate feedback. Last year, the Anacapa faculty heard Salman Khan speak at UCSB about his work in education, and we have been really excited to add this resource to our courses for more individual practice and fine-tuning of skills.

Office Hours

- Bryan – Tuesday 3:00 to 3:40
Wednesday 3:00 to 4:00
Any day at lunch or break
- John – Monday through Friday from 9:40 to 10:00
Monday and Tuesday by appointment.

Join Us for the Family Math Fair on November 19

The 19th Annual Family Math Fair is happening on Monday, November 19 at 7:30 pm. It will be a great family time with some easy to difficult logic puzzles and word problems that really make you think outside the box. We will have prizes for a raffle at the end of the night, and you can earn tickets throughout the evening by answering problems correctly. Bring the whole family and you may even walk home with Trader Joe's grub to eat over the Thanksgiving weekend!

~~ Bryan Anderson and John Luca