



THE FACULTY CORNER

FROM THE ANACAPA SCHOOL SCIENCE DEPARTMENT. . .

This is my first year teaching at Anacapa, and I have to admit that it's not exactly what I had expected. I expected to have students who would get their work done; students who are sharp, critical thinkers; students who care about themselves and their futures. In general, I expected to have good students. Now that I've been at Anacapa for over six months, I must say that the students here are not only sharp, critical thinkers who care about the future and do their work. They are also exciting, entertaining, and responsible individuals who truly care about each other and the community. They are all very mature for their ages, and I have learned a lot from them over the last half year. In my experiences teaching at other schools, I came across a wide range of students, some good and some not so good; all of the students at this school are great! Teaching science at Anacapa has been an adventure so far, and I am honored to help the students learn about the natural world so that they can make the best possible decisions in the future.

Lower School Life Science

I initially enjoyed the students in Life Science, but sometimes their youthful energy and enthusiasm were slightly overwhelming. I realize that they need to practice bookwork skills, as the ability to learn from a textbook will benefit them throughout their academic careers. But I also have realized that Lower Schoolers especially need to mix it up and work on a variety of projects that can help them learn about life and have fun at the same time. In the first semester, we learned about the nature of science, the characteristics of life, scientific classification, the components of a cell, genetics, human inheritance, and a wide variety of other scientific information.

In the second semester, we have been learning about evolution, and the students did an amazing job of describing the journey of Charles Darwin. We will continue to learn more about evolution, then move on to a brief ocean unit. This month, the students are going to attend an immersion program at the Santa Barbara Maritime Museum, where they'll be able to communicate with scientists and observe their explorations of the Monterey Bay National Marine Sanctuary via satellite. After studying the ocean for a short time, the students will learn about ecology, and we'll be venturing to the local mountainside to see how life in Santa Barbara works. Any parents interested in chaperoning can email me at jasonmosier@hotmail.com. The end of the semester will be spent studying the physiology of humans and other organisms, and that's when the good old dissections will take place. Don't worry: we'll be dissecting the other organisms.

over please...

Upper School Biology

We've learned a lot about life so far this year in Biology. The year began with the students using microscopes and trying to figure out what caused an infection in my foot. After using the scientific method, we concluded that the cause of the infection could have been a vast array of microorganisms, either from the ocean or the UCSB lagoon. Since then, we've studied a lot of molecular and cellular biology, learning mostly in this order: biochemistry, the components of life, the cell, the plasma membrane, mitosis, meiosis, Mendelian genetics, chromosomes and heredity, DNA structure and replication, and genetic transcription, translation, and regulation. We are going to finish off the year by studying evolution, ecology, and physiology. At some point this spring, we will be checking out some of Santa Barbara's local flora and fauna, so I'd be happy if any parents want to come along and chaperone. Feel free to email me: jasonmosier@hotmail.com. We'll be doing some fun dissections in the spring as well.

The students in this class are reading *Biology: A Guide to the Natural World*. It is a very informative textbook, with a lot of interesting facts and short essays about biological concepts. It's also a very advanced textbook, and I want to commend all of my students for doing such a good job keeping up with it. It's not quite a university-level textbook, but it is written and organized in a way that will help prepare students for college-level reading. Good job!

Upper School Chemistry

Chemistry is a really fun class to teach at Anacapa because most of the students in the class have been at this school for a long time. Although they get a little chatty at times, it's very interesting to see how well these students work together. Whenever one student is struggling with a concept and I'm about to come over to give them help, another student usually beats me to it. This display of maturity and willingness to help each other learn is a true testament to the success these students have had at Anacapa! It wasn't that long ago that I was working in the chemistry lab in college, and I wish that some of my lab partners had been as helpful as any of the students in my Chemistry class today.

The year began with a fair amount of inquiry-based labs that dealt mainly with the nature of matter and its properties. Since then, we have studied a vast array of chemical and scientific concepts: types of energy, atomic structure, scientific notation, electron configurations, significant figures, the periodic table, ionic compounds, covalent bonds and molecular forces, and organic chemistry. For the last half of the year, we will learn more about the mole, chemical equations, stoichiometry, acids, bases, reaction rates, and possibly some nuclear chemistry. The final weeks of the school year will be spent doing a lot of fun and exciting labs. I found a cool program called "The Chemistry of Fire" that we may implement into the curriculum. Don't worry: we won't burn down the school.

~ ~ Jason Mosier

Editor's Note: When asked to update us on his foot infection, Jason told us,

"The infection in my foot did subside a long time ago, and I'm no longer hobbling around, struggling to tie my shoe. Maybe I can get my Bio. and Chem. classes to collaborate on a way to prevent future infections. Or maybe I should just listen to my former environmental club students, who know how important it is to stay out of the ocean after a rainstorm!"