



THE FACULTY CORNER

FROM THE ANACAPA SCHOOL SCIENCE DEPARTMENT. . .

MARINE SCIENCES

The year of marine sciences has started off swimmingly. Our Beginning-of-the-Year Trip to Big Sur gave everyone a chance to get up close and personal with some of the abundant life in California's near-shore marine environments. The students produced an Anacapa School Big Sur Field Guide, which helped us identify Goose Barnacles, Blue-Handed Hermit Crabs, Purple Dwarf Olive Snails, and other critters during our stay at the Big Sur Tidepools.

Upper School Marine Biology:

Since the trip, the Upper Schoolers have been busy studying the origins of the Earth's oceans and the life found in those oceans. They closely examined the formation of the sea floor by looking at maps of seismic and volcanic activity, as well as sea floor age. They studied the similarities between bike tires and the Earth's tides and saw how the fundamental property of density organizes the physical characteristics of this strange planet. In more recent weeks, we have been studying life---what makes something living and how do we know? Where did life on the planet come from? And, of course, the ever-important question of how does life work? We've followed our path of discovery, lecture, and further clarification through analysis of mystery substances, interactive performances, and good old observation of the world around us.

Lower School Marine Science:

The Lower School has spent more time looking at the physical features of our oceans. Marine Science is a combination of oceanography—the study of the physical ocean—and marine biology—the study of the life in the ocean. The Lower School started their exploration of Marine Science with a critical look at the process of science. The class decided on an original research project (a study of the effect of height on running, jumping, and marshmallow-eating ability) and followed the process from start to finish, including publishing the results. Next, the class moved on to studying plate tectonics and the sea floor, showing off their knowledge in a collection of "Plate Poetry," ranging in topic from the formation of the Hawaiian Islands to the thoughts of Alfred Wegener, creator of the theory of Continental Drift. The students are a very creative group and have enjoyed chances to show off their skills through presentations, posters, and poetry. Now they are studying the properties of water and how this special substance makes life in the oceans (and on land) possible.

~ ~ Megan Nesland

(over please)

PHYSICS

While mathematics is the mother of all sciences, one can consider physics to be the big sister of the other sciences. According to Wikipedia, “Physics is a natural science that involves the study of matter and its motion through space-time, as well as all related concepts, including energy and force. More broadly, it is the general analysis of nature, conducted in order to understand how the universe behaves.”.

For most, physics is based on extremely common sense concepts that come from empirical observations and intuitive but insightful conclusions. The modeling approach of physics can be just as disconcerting in its simplicity or sophistication, but it is definitively accurate in translating our universe with elegance. In turn, physics provides the backbone for all technologies.

Students in the Upper School Physics class get a conceptual but rigorous approach to the discipline as we glimpse the mystery of our universe through abstract thinking, modeling clarification, practical problem-solving, and hands-on labs.

~ ~ Rachid Labgaa