

Little Water Creatures
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Fellow Makaha teachers Meghan Hewins, Ray Pikelny and I jointly received a GEMS grant to purchase microscopes, a microscope camera, and a laptop computer for our three classrooms. As the students at Makaha Elementary have never used a microscope before, the first lesson included a heavy dose of “be carefults”, please don’ts”, and “if you ever’s”. To my utter amazement, with a microscope, slide, and a partner, my class fell silent. It was as if I opened a box into the unknown and they were speechless, literally. They were simply amazed.

In both of the units described below, students prepared their own slides. When their slides were shown to the class on the microscope attached to the camera and projector, the students were extremely proud.

Aquatic Environments

One of the Grade 6 writing genres is report writing. Our class chose to study aquatic environments, which lent itself nicely to microscopic exploration. The students who collected pond samples saw various algae and micro-fauna, which they put on slides and drew pictures of to include in their reports. The students who collected saltwater samples were disappointed at the lack of clarity they could see in their microscopes. I told the students of my trip aboard University of Hawaii’s research vessel and how samples were collected using a tow net. I had a jar of zooplankton from the trip and the students used this for their observations. They were amazed by what they saw. I used this lesson to explain life cycles within the ocean. Students learned the smallest species (the microbes that feed zooplankton) are the most critical to overall health of the system. The students related this to life cycles we had studied in the form of terrariums. They discussed the importance of a balanced ecosystem, and the jar of plankton seemed to fill an abstract gap of knowledge between microbes and the larger visible marine life.

Brine shrimp

In the 1st quarter we spent about two weeks studying brine shrimp, so we could introduce the scientific method to the students. We talked about variables, populations, aquaculture, etc. Each group of four students set up an experiment to find the optimal conditions for brine shrimp to hatch. During the various stages of a brine shrimp’s growth, students observed brine shrimp under the microscope and prepared slides. They noted the changes in their notebooks and drew the various cycles.

*If any other teachers come across this and want more information, please feel free to contact me soberg19@yahoo.com.