

## The Boneyard Project

*Nick Ehlers, Biology, High Tech High Chula Vista*



This eight week project between Nick Ehlers' junior biology class and Patrick Wilcox, a former HTHCV student, began with in-class dissections to discover the anatomy and physiology of rats, snakes, and lizards. By removing all organs we prepared organisms for our colony of flesh eating beetles. The beetles were recorded as they ate the deceased animal remains right before our eyes, leaving behind only the bones. Students then recovered the remains and reconstructed the skeletons. We wanted to answer the essential question: "How do anatomy, physiology, and skeletal structures of small mammals and reptiles compare and contrast to the human body?" Students also prepared presentations including photo displays, videos, and posters documenting the entire process for display at Dia de los Muertos (Day of the Dead) fall exhibition.

### Teacher Reflection

My main goal was to stimulate all five senses of my students for long-term deeper learner. I can confidently say that this was accomplished. Warnings: your students will be disgusted at times (e.g. odor, sights), but that is an important part of the experience. You also have to take close care of your beetle colony. I would recommend a reliable offsite backup beetle colony just in case you have issues with yours. In addition, if you have the chance to partner with a local osteologist and/or beetle expert this is ideal. I did, and without Patrick's expertise and background as a former High Tech High student, I may not have been able to complete this project. Thank you Patrick!

### Student Reflections

We had three projects within one. We not only had to dissect our animals, but we had to skin them, feed them to flesh eating beetles, take apart and bleach the bones, and lastly reconstruct the skeletons. And apart from all that we had to put together our presentations which included creating posters or videos and setting up the room, which was designed to look like a haunted house that had a giant rib cage in the entrance. There was always a horrid smell of rotten snakes, lizards, and rats in the room which meant this project was the real deal.

—Marissa Boyer and Lorenz Alfiler