



**SOL-BASED ENVIRONMENTAL EDUCATION PROGRAMS  
FOR HIGH SCHOOL BIOLOGY**  
**PETER FRANCISCO SOIL & WATER CONSERVATION DISTRICT**  
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- **The Hidden Life of Soils** (BIO.6, BIO.8)

Nutrient cycling, effects of natural events and human activities, and organisms within the soil will be discussed. A soil community biorama is displayed and discussed. Then the students will divide into groups of 4 and play a go-fish style card game which will familiarize them with the different families of life under the soil. The object of the game is to complete a family (plant, soil, microfauna and microorganism, mesofauna, macrofauna, megafauna and scientific).

- **Macroinvertebrates** (BIO.6 AND BIO.8)

Leaf bags can be used to collect specimens and observation can be done in the classroom or program can be conducted off-campus. If using leaf bags, we need at least one month in order to collect specimens. Students will investigate organism classification, adaptations that enable organisms to survive within a specific ecosystem, factors that increase or decrease their population and how their presence or absence indicates a healthy or unhealthy ecosystem.

- **Water Quality Testing** (BIO.2)

This is an introduction to water quality parameters including the units of measure, range and regulatory standards for temperature, pH, turbidity, nitrogen, phosphorous, bacteria and dissolved oxygen. This lab provides experience in using common water monitoring equipment.