



Phylum Arthropoda, Class Insecta

This program explores the diversity of Arthropods and then focuses on Insects. In the first class, we bring around a dozen arthropods over every type we can muster. We handle each of these creatures with the students (maybe not the centipede) and have the class derive the meaning of a synapomorphy by listing different traits that are common between different groupings of the critters in front of them. In the next class students will observe insects and talk about what designates them in class Insecta. The third class in this program will explore adaptive traits of various insects and looks at both physical and behavioral adaptations. We bring a diversity of different exotic live insects to the class and have students hold and observe them while we go over topics such as convergent evolution, mimicry, coevolutionary arms races. Students will observe and then dissect different insect legs, closely observing the morphological differences. This course wraps up with a final session that begins with a deep-dive look into the life history of the Brown Marmorated Stink Bug (*Halyomorpha halys*).

Day 1: Introduction to Arthropods

Day 2: What's an insect?

Day 3: Insect Adaptations

Day 4: Insect Leg Morphology

Day 5: Insect Flight

Day 6: Observing Insect Wings

Day 7: Insect Mouthparts

Day 8: Local Insect Guide Overview

Day 9: Local Insect Diversity

Day 10: Insect case study: *Halyomorpha halys*

Day 11: Insect specimen wild collection

Day 12: Insect specimen labeling and preservation