



## Exploring Metamorphosis

This program uses between eight and ten species of living insects to illustrate the differences between holometabolous (complete) and hemimetabolous (incomplete) metamorphosis. Students start by observing terrariums that each have all of the different life stages of one particular species within it. As they observe the differences between the life stages of the various species, they will begin to notice that the insects that undergo complete metamorphosis have a fundamentally different developmental strategy than do those that go through incomplete metamorphosis. They should notice that holometabolous adult insects have few morphological similarities with their juvenile stages while, in contrast, hemimetabolous adult insects look very similar to their juvenile stages.

At the end of this lesson, as students are now experts on insect metamorphosis, we will venture outside to wild collect insects and identify the type of metamorphosis they go through based on their morphological features. This interactive portion of the unit will apply what students have learned about metamorphosis in an exciting and practical way, it will also allow students to interact with local insect ecosystems.

Day 1: Insect Introduction

Day 2: Complete Metamorphosis

Day 3: Incomplete Metamorphosis

Day 4: Identifying an insect

Day 5: Common PA insects

Day 6: Insects in the wild