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Understanding Evolutionary Biology through Physical Adaptations in Insects

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The broken mussel shell I picked up and brought to my third grade students sparked an idea that inspired this curriculum unit! This shell contained a life-form I had never seen before. It contained the next generation of house flies, which occupied the space inside the shell where the decaying meat made a meal for the young maggots. The house fly makes an excellent research subject because it is so familiar to everyone. Think for a moment about your own accidental encounter with maggots or other insects. I have yet to meet someone who didn't have a story about maggots because flies are everywhere! In fact insects make up the majority of species on this planet! The larvae in the shell taught me that a fly has a great ability to reproduce and this has helped them survive since the Triassic period, 200 million years ago!

In this unit, students will study in depth two adaptations in flies and dragonflies to learn about how and why adaptations arise. Students will also learn about natural selection by participating in a game that demonstrates that traits which allow organisms to better fit their environment will increase through time. This unit will give students the opportunity to see that the diversity of life on Planet Earth occurred through the evolutionary process of natural selection.

(Developed for Science, grade 2; recommended for Science, grades 2-3)