



Jacoby Creek Land Trust

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Inspecting Interesting Insects

Grades: K-12 **Subjects:** Science, Environmental Studies

Group Size: 1+ **Duration:** 20-60 min.

Setting: Outside with enough space so everyone can spread out.

Key Words: insect identification, wildlife habitat, and ecology

Goals/Objectives: Students will observe the complex world of arthropods: insects, spiders, crustaceans, and their relatives in the Jacoby Creek watershed.

Background: Arthropods are easily observed and diverse creatures. Arthropods are animals that are a part of the Phylum *Arthropoda*, which literally means “jointed feet.” An arthropod body consists of segments and each segment has a pair of jointed appendages. Arthropods are invertebrates, which means that they do not have a backbone or spinal column. Instead of internal bones like us, they have exoskeletons that cover their entire bodies. There are over one million known species of arthropods. The Jacoby Creek watershed houses both terrestrial and aquatic arthropods, all of which can be easily observed.

Materials & Prep: Enough hula-hoops for each student or group of students. You could also make hula-hoop-sized string-rings if hula-hoops are not available. Pencils and paper if recording findings. Magnifying glasses or microscopes may be used to look closer at interesting findings. Rulers may be used to measure your findings. Crayons, markers, or colored pencils for drawing and sharing what you find. Journals for writing and/or drawing. Jars if you want to temporarily collect your findings for observing and/or counting. Consider using the free Arthropod handout by Lesson Snips (www.lessonsnips.com/docs/pdf/arthropods.pdf).

Activity: Pass out hula-hoops or string-rings, pencils, paper, and other optional materials. Have each student or group of students find a place to put their hoop or ring on the ground or along the creek side and observe, count, and/or draw their findings. This activity can be altered in many ways for different groups. Below are some options for activities:

- **Counting Creatures:** Show younger students a hula-hoop. Let the students estimate how many insects they will find in the ring. Demonstrate how to complete the activity by throwing a hula-

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hoop onto a grassy area. Gather the group around the hula-hoop and collect as many insects as possible (inside the hula-hoop). As a group, count all of the collected insects and review the estimates each student made to see who was the closest. Return insects to their home and discuss results.

- **Types of Arthropods:** Help the students identify the kinds of arthropods they observe. (Be prepared to answer their questions!) Count them, compare observations with others, and estimate how many arthropods live in Kokte!
- **Habitat:** What kind of environments do arthropods inhabit? Where do they live? Who do they live with? What do they eat? Who eats them? Do these things change during the different stages of their lifecycles? How and why?
- **Ecosystem:** Have the students figure out what is within their designated space and how it relates to the environment, the ecosystem, and the food web. Discuss how arthropods are part of a web of plants and animals that are interrelated and interdependent. Don't forget that people are part of this web too! Did you find any evidence of humans?
- **Diversity:** Older students can determine what species are present, how many different species, and estimate population sizes of different species. Compare the types and numbers of insects found in different areas such as in the grassy field, forest, creek side, creek, and paved areas. Graph the results. Discuss the important roles that arthropods play in the larger ecosystem and food web.