



Learn by Doing!



Interactive Educational Series



Wilson County 4-H
wilson.ces.ncsu.edu

The background of the entire page is a vibrant orange. It is decorated with several green leaves of various shapes and sizes, some with dark green veins. Scattered throughout are several red ladybugs with black spots and black antennae. In the center of the page, there is a large green four-leaf clover with the white letter 'H' on each of its four leaves. The text is arranged in a vertical column on the left side of the page.

Entomology: Series 2
"Ants & Uncles"

CREEPLY CRAWLIES

Send us a picture of your work!

Wilson County 4-H
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Ants and Uncles

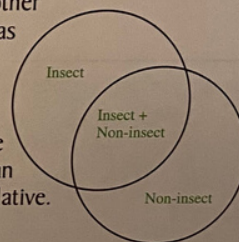
Activity: Collect and compare insects with their relatives.
Life Skill: Critical thinking, social skills
Science Skill: Insect classification, observing, collecting
Success Indicator: Identifies insect differences
Supplies Needed: Clear plastic cup, stiff cardboard, container with holes in the lid

One way to make decisions is to compare one choice against another. You compare movies, food, magazines and other items. You even compare people when you decide to choose a certain friend. Do you have brothers and sisters? Maybe you have aunts and uncles, or nieces and nephews. Insects, like people, have relatives. In this activity you will compare insects with their non-insect relatives.



BEEgin

With a friend, look under rocks, leaves, boards and other debris for insects and their relatives. To safely collect some of the fast running ground dwellers, use a clear plastic cup and a sheet of stiff cardboard. Turn the cup over and place it over the insect or relative. Next, carefully slide the cardboard under the cup taking care not to injure the **specimen**. Put the specimen into another container with a lid that has small holes so that the specimen can breathe. Describe your specimens in the chart below. Use the circular chart to compare an insect with a non-insect relative.



Specimen Number	✓ if Insect	Pairs of Legs	Antennae	Wings	Body Shape (sketch) Round, Oval, Long	Other Common Name	Distinguishing Characteristics

Talking It Over



Insect Facts

Reflect

- What living things did you collect?
- How did you collect them?
- Where did you collect them?
- What were some of the differences you saw as you compared your specimens?
- What are some of the decisions you had to make to separate the specimens?
- Did you and a friend ever disagree whether the specimen was an insect or a non-insect relative? How did you reach an agreement?

Apply

- Use circular charts, like the one on the preceding page, to compare how you and a friend are alike or different.
- What is unique about you? What is unique about your friend? What are your similarities?
- How could you use circular charts to help make a good decision about buying something like a new bike for example? What would you compare?

In the United States, our tarantulas are less venomous than the black widow spider.

When holding insects or other arthropods, be certain to hold them gently.

Humans have an endoskeleton and insects have an exoskeleton.

A millipede has two pairs of legs on each body segment.

What makes an insect an insect?

- Body divided into three regions: a head, thorax and abdomen
- A pair of antennae
- Three pairs of legs
- Some adult insects have one or two pairs of wings



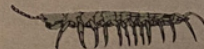
Once you have collected your specimens, return home and decide which are insects and which are not. A magnifying glass will help you see details easily.

Non-Insect relatives

Four pairs of legs, no antennae (spider)



More than five pairs of legs, body flattened, one pair of legs per body segment (centipede)



More than five pairs of legs, usually with two pairs of legs per body segment; body round (millipede)



Seven pairs of legs, small, gray. Body like an armadillo (sowbug)



Migrating On

1. Collect an insect relative and an insect and make at least six comparisons between them.
2. Describe the differences between a stick bug (a true bug) and a sowbug to your helper.
3. For non-insect relatives see: www.n4hccs.org

Send us a picture or
video of your work!



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