

TINY MESSENGERS

A Conservation Nation Academy Lesson

Please visit www.conservationnation.org/lessons for complete lesson materials including the lesson video, worksheets, and vocabulary list.



TIME REQUIRED

10 minutes for video plus 20-30 minutes for outdoor exploration

SUMMARY

Insects are tiny messengers that tell us about the health of our planet and its ecosystems. We rely on insect populations to provide food for animals, decompose organic matter, cycle nutrients, aerate soil, and pollinate most of the world's flowering plants, including ones that we rely on for food. However, insects are rapidly declining throughout the world in both diversity and abundance, and their disappearance is a clue that our ecosystems are in trouble. In this video-based lesson, your students will learn from Conservation Nation Chrysalis Scholar, Zabreya Okyere, and her professor, Mariana Abarca, about the importance of conserving diverse insect populations and what actions we can take to nurture insect diversity in our landscapes. Inspired by Zabreya's work studying insect populations that live in leaf litter, students will go outside to perform an insect habitat assessment of their schoolyard or local park, examine leaf litter, and/or create advertisements to promote insect conservation by "leaving the leaves".

OBJECTIVES

- Students learn about the project of a Conservation Nation Chrysalis Scholar.
- Students conduct an insect habitat assessment of their schoolyard or local park.
- Students examine leaf litter to observe and identify insects and other decomposers.
- Students gain an appreciation for insects and overcome fears in observing insects and other decomposers.
- Students create messages and advertisements to advocate for insect conservation.
- Students become inspired to learn more about insects and the field of entomology.

MATERIALS AVAILABLE AT www.conservationnation.org/lessons

- "Tiny Messengers" video
- Three student pages:
 - Insect Habitat Assessment
 - Leaf Litter Assessment
 - Leave the Leaves Ad Campaign
- Vocabulary list

OTHER MATERIALS NEEDED

- Clipboards and pencils

INSTRUCTIONS

- Watch the video to learn about Zabreya's project and the importance of conserving insects.
- After watching the video, ask you students if they have observed insects in and around your schoolyard or perhaps in a nearby park. Where are good places to look for insects? How



would they rate the insect habitat around the school? What suggestions do they have for improving it?

- Using the Insect Habitat Assessment student page, guide students on a walk around your schoolyard or a nearby park, stopping at several points for students to make observations using their worksheets.
- If your students are curious about the trees in your schoolyard and you need help in determining if they are native, use the Arbor Day Foundation's [Tree Identification Guide](#).
- You can also use our Leaf Litter Assessment worksheets to guide your students in making observations of leaf litter either during your Insect Habitat Assessment or later in the classroom.

TIPS:

- ⇒ Collect soil and leaf litter from areas where you know that no pesticides or fertilizers have been used.
 - ⇒ Place large handfuls of leaf litter on white paper or in shallow white basins so that it will be easier for students to make observations.
 - ⇒ Spoons, paintbrushes, simple magnifying glasses, and small containers with lids are helpful tools for sorting and identifying critters. Many of these organisms are small, so encourage your students to look closely.
 - ⇒ Let your students have fun and get excited about their observations! This is a wonderful opportunity to encourage them to overcome fears, be brave and curious, and ask lots of questions.
- If you would like to spend a more substantial amount of time observing leaf litter like Zabreya, we recommend following this [Leaf Litter Ecology Lab](#) by the Chicago Botanic Garden.

REFLECTION

In the video, Zabreya and Mariana offer many suggestions for improving insect diversity. One of the simplest things that people can do in areas with deciduous trees is to “leave the leaves” rather than raking them all up in the fall. Allowing at least some of the leaves to remain on the ground throughout the winter will provide valuable habitat for insects and contribute to a healthier ecosystem. Use the Leave the Leaves Ad Campaign student pages provided to have your students design their own slogans or advertisements, or plan some creative skits, to encourage people to allow leaves to remain on the ground over the winter.

Inspired to do more with your schoolyard and help our world's tiny messengers? Check out the National Wildlife Federation's [Schoolyard Habitat Planning Guide](#).

We hope you enjoyed this lesson!
Learn more about Conservation Nation at

www.conservationnation.org

