



# ENTOMOLOGY



## WHAT'S IT ALL ABOUT?

Have you ever chased a butterfly or caught a lady beetle? The 4-H Entomology Project allows you to study and learn about insects, the largest group of animals on earth. This project will introduce you to the world of insects, show you how to collect and display insects you find, and even show you how to do explore forensic entomology by completing insect research and using the scientific method.

## HERE'S WHAT YOU CAN LEARN...

### STARTING OUT

- ✿ Learn to identify insect parts and various shapes, sizes and colors of insects.
- ✿ Match an insect's form to its function and explore its adaptations.
- ✿ Discover insect behaviors of jumping, flying, walking and other behaviors, comparing them to human abilities.
- ✿ Explore insect biodiversity by collecting various insects using different traps.
- ✿ Learn about invasive insect species and the reasons for their survival success.

### LEARNING MORE

- ✿ Explore how to make insect collection tools such as an aerial net, hand lens, collecting jar and releasing jar.
- ✿ Attract and collect insects, and then study the diversity of the specimens collected.
- ✿ Observe and study various behaviors of insects, such as feeding, attraction and movement.
- ✿ Use Integrated Pest Management (IPM) practices within your home.
- ✿ Explore forensic entomology principles to properly identify an insect.

### GOING FURTHER

- ✿ Conduct research and use additional resources for in-depth study of entomology.
- ✿ Use the scientific method to record and keep accurate records to use in reporting or presenting your findings.
- ✿ Explore the use of transect sampling to study and monitor the environmental health of a habitat.
- ✿ Continue explorations in diversity through advanced insect collection and measurements using the scientific method.

### RESOURCES

- ✿ Teaming with Insects, *Level 1 (08440)*
- ✿ Teaming with Insects, *Level 2 (08441)*
- ✿ Teaming with Insects, *Level 3 (08442)*
- ✿ Teaming with Insects, *Facilitators Guide (08443)*

## TAKE IT FURTHER!

- ✿ Learn about different kinds of insects that humans can eat. Consider making an insect treat to share at your club meeting.
- ✿ Start raising an insect as a pet or for a hobby. Observe the insects behaviors in a variety of settings.
- ✿ Visit the University of Wyoming Insect Museum located in Room 4018 of the Agriculture Building.
- ✿ Do an internet search to learn more about how crickets can help to tell temperature. Test the theory to see if it is true.
- ✿ Find and study an ant colony over time.
- ✿ Study the life cycle of an insect. A great place to start would be a caterpillar, watch it turn into a cocoon, then a butterfly or moth.
- ✿ Take a hike and see how many different types of insects you can find.
- ✿ Learn about different types of insecticides. Even learn how to make your own bug repellent.
- ✿ Become a beekeeper and harvest your own honey.
- ✿ Take a field trip to your local co-op or seed dealer to learn about common insects in your area.
- ✿ Visit a lawn care company to learn how they control pests.
- ✿ Do an interview with an exterminator.
- ✿ Research careers related to entomology.

### ENHANCE YOUR COMMUNICATION SKILLS

Do a presentation on Integrated Pest Management to help solve an insect related problem.

Enter the 4-H Beekeeping Essay Contest. This contest is held each year with entries due in early March, the contest is sponsored by The Foundation for the Preservation of Honey Bees, Inc.

### GET INVOLVED IN CITIZENSHIP AND SERVICE

Create a community flower garden to attract beneficial insects.

Take your insect collection to an elementary school or nursing home and show it to others.

Make an insect craft with your club members and donate them to a local hospital or nursing home to use as tray favors.

Work with a beekeeper or raise your own bees to provide honey to a local food pantry or family in need.

### LEARN ABOUT LEADERSHIP

Host a Cloverbud meeting about insects.

Develop and implement a biological control program for an invasive species.

Host a club bug collecting contest to help members learn about insects in your area.



### EXHIBIT IDEAS

- ✿ A collection of insects that are mounted and labeled
- ✿ A display of insect body parts
- ✿ Create a pitfall insect trap
- ✿ Make a model of an insect's eye
- ✿ Display on types of insect control in the home
- ✿ Insect trap
- ✿ Poster on insect metamorphosis
- ✿ Display of insect leg parts
- ✿ Poster on understanding insect pesticide labels
- ✿ Plans for a butterfly garden
- ✿ Display of various types of insect mouth parts
- ✿ Display of various types of insect wings
- ✿ A pinning kit

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