



**COLORADO STATE UNIVERSITY
EXTENSION**

Entomology

Each level is designed for members 8-18 years old and builds upon each other.

Level 1 (Grades 3-5) Teaming With Insects - Unit 1 (Display Board option)

Unit 2 (Collection option)

Inspiring youth to:

- Study the parts of an insect
- Make either an insect collection with between 25 and 75 adult insects OR a display board telling about some phase of your project work (equipment, activities, etc.)
- Construct and operate a pitfall trap
- Study how insects communicate
- Learn about beneficial and destructive insects (invasive insects)
- Study the biodiversity of insects in different habitats
- Learn about integrated pest management
- Observe cricket behavior and communication

Level 2 (Grade 6-8) - Units 3 and 4

Inspiring youth to:

- Learn more ways to trap insects
- Study the different orders of insects
- Learn which plants attract butterflies
- Make a metamorphosis wheel



Level 2 (Grade 6-8) Continued

Inspiring youth to:

- Study the stages of mosquito development
- Develop special insect collections
- Learn more about invasive species, integrated pest management, and forensic entomology

Level 3 (Grades 9-12) - Units 5 and 6

Inspiring youth to:

- Explore entomology careers
- Use the scientific method to learn about insects
- Make a dichotomous key
- Seek out new resources and dig deeper into project topics

Exploring with Insects Advanced - Unit 7

Inspiring youth to:

- Explore entomology careers
- Expand your main and special collections
- Explore an advanced topic of your choice
- Create a display board or stand alone item sharing what you learn



Entomology

Project Tips:

- Exhibits are limited in insect specimens only. Insects have three body regions, three pairs of legs and one pair of antennae, and wings in adult stage. (Spiders have four pair of legs, two body regions and no antennae.)

Display Board Tips:

- The standardized display board size of 4 ft. x 3 ft.
- Represent some phase of your project work: a chart, special equipment, what you learned in project activities, etc.

Judging Criteria:

- Neatness - readable, well-organized, clear, legible and understandable
- Creativity - originality, freshness, imagination
- A minimum of 12 activities completed in manual
- e-Record completed with photos & story.

Collection Tips:

Acceptable sizes of handmade Entomology Display Boxes include:

- 12" W x 16" L x 3" deep
- 12" W x 18" L x 3 1/2" deep
- 18" W x 24" L x 3 1/2 "deep

Glass tops on display cases should slide to the top or side to prevent them from slipping out and breaking.

Commercially available display cases are acceptable. Regular insect pins are required. The display must include date and location where insects were collected placed on labels attached to insect pins.

Resources:

- Exhibit & Judging Requirements
- Record Books
- Manual Information

Located at: Colorado4h.org



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**Beyond
Ready**

Entomology Industry Careers



Natural Resource
Conservationist
Conservation of plants
and animals around
entomology



Research
To study the effect of
insects on different
environments, plants,
animals, and consumers



Education
Teach others about
gardening and insects
(i.e. Extension educator
or school faculty)



Inspection
Provide inspection
services for plants and
animals and producer
quality to ensure
consumer safety



**COLORADO STATE UNIVERSITY
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Degrees/Certifications:

Public Health Entomology Certificate
Forensic Entomology
Apiculture
Conservation
Microbiology
Disease Management
Agronomy/Crop Science
Entomology
Forestry



Regulation
U.S. Customs & Border
Patrol/Inspection Officer;
Help prevent unwanted
diseases and invasive
species going in and out of
the United States



Public health
Reduce and prevent
disease spread through
insects into the general
human population



Career Information
Technology
Support individuals and
businesses as they provide
services utilizing technology



Consulting
Provides the opportunity
for education and
analysis surrounding
insects