



DIVISION 15: NATURAL RESOURCES

Section #1 ENTOMOLOGY



Note: Entomology workbook required. Entomology is the study of insects. Insects have three body regions, three pairs of legs and one pair of antennae, wings in adult stage, typically two pair. Spiders are Arachnida which have four pair of legs, two body regions and no antennae. Exhibits in entomology are limited to insect specimens only.

- Older members may start with Unit 2.
- Each year 4-H members build on their collection by adding new insects as required for that particular unit. Refer to the exhibit requirements for the number of insects to collect for that unit.

Acceptable sizes of handmade Entomology Display Boxes taken from the manual and kit:

12"W x 16"L x 3" Deep OR 12"W x 18"L x 3 ½" Deep OR 18"W x 24"L x 3 ½" Deep

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

Commercially available display cases are acceptable.

LET'S LEARN ABOUT INSECTS - UNIT 1

Let's Learn About Insects

Jr. / Int. / Sr.

Exhibit will consist of the following:

- Completed e-Record and Entomology workbook presented in a sturdy binder/notebook.
- Insect Collection display no fewer than 10 and no more than 35 adult insects in at least 3 different correctly labeled orders. Boxes for display should be approximately 12" x 16" x 3". Regular insect pins are required.
- Project will be evaluated on the quality of the information completed in the e-record (25 percent) and quality of the exhibit (75 percent).

LEARN MORE ABOUT INSECTS - UNIT 2

Learn More About Insects

Jr. / Int. / Sr.

Exhibit will consist of the following:

- Completed e-Record and Entomology workbook presented in a sturdy binder/notebook
- Insect collections—display no fewer than 25 and no more than 75 adult insects in at least 6 different orders. Standard-sized display boxes with removable glass covers are required. Regular insect pins are required.
- Project will be evaluated on the quality of the information completed in the e-record (25 percent) and quality of the exhibit (75 percent).

INSECT HABITS AND CONTROLS - UNIT 3

Insect Habits and Controls

Jr. / Int. / Sr.

Exhibit will consist of the following:

- Completed e-Record and Entomology workbook presented in a sturdy binder/notebook.
- Insect collection—display no fewer than 75 and no more than 150 insects including a representative from at least 9 different orders (one order developed in water), correctly labeled. Include a special collection of 8 different insects, as stated in Unit 3 Workbook. Standard-sized display boxes with removable glass covers are required. Regular insect pins are required.
- Project will be evaluated on the quality of the information completed in the e-record (25 percent) and quality of the exhibit (75 percent).

INSECT IDENTIFICATION AND COMMUNITY PROJECTS - UNIT 4

Insect Identification and Community Projects

Jr. / Int. / Sr.

Exhibit will consist of the following:

- Completed e-Record and Entomology workbook presented in a sturdy binder/notebook.
- Insect collection—display no fewer than 100 and no more than 250 insects in 10 different, correctly labeled orders. Standard-sized display boxes with removable glass covers are required. Regular insect pins are required.
- Project will be evaluated on the quality of the information completed in the e-record (25 percent) and quality of the exhibit (75 percent).

IMMATURE INSECTS AND LIFE STAGES - UNIT 5

Immature Insects and Life Stages

Jr. / Int. / Sr.

Exhibit will consist of the following:

- Completed e-Record and Entomology workbook presented in a sturdy binder/notebook.
- Display your regular insect collection.
- Display a collection of at least 10 larvae or immature insects in vials of rubbing alcohol, or similar preservation.
- Display a special collection that is different from the one in Unit 3, including at least 10 insects.
- Project will be evaluated on the quality of the information completed in the e-record (25 percent) and quality of the exhibit (75 percent).

EXPLORING WITH INSECTS - UNIT 6

Exploring with Insects

Jr. / Int. / Sr.

Exhibit will consist of the following:

- A. Completed e-Record and Entomology workbook presented in a sturdy binder/notebook.
- B. Report on at least three special activities and include them in the e-Record before the story.
- C. Insect collection –display no fewer than 50 insects from a single insect order with no more than 3 specimens of the same insect. Standard-sized display boxes with removable glass covers are required. Regular insect pins are required.
- D. Project will be evaluated on the quality of the information completed in the e-record (25 percent) and quality of the exhibit (75 percent).

EXPLORING WITH INSECTS (ADVANCED) - UNIT 7

Exploring with Insects Adv

Jr. / Int. / Sr.

Exhibit will consist of the following:

- A. Completed e-Record with emphasis on your accomplishments in your story, presented in a sturdy binder/notebook.
- B. A display board representing some phase of special project work. This could include a chart or special equipment used or developed. The standardized display board size of 4 ft. x 3 ft. is to be used with 4-H projects. No additional items may be included in front of display board.
- C. Project will be evaluated on the quality of the information completed in the e-record (25 percent) and quality of the exhibit (75 percent).

Section #2 OUTDOOR ADVENTURES

List the day, month, and year for the date of completed activities on page 4.

HIKING TRAILS - UNIT 1

Jr. / Int. / Sr.

CAMPING ADVENTURES - UNIT 2

Jr. / Int. / Sr.

BACKPACKING EXPEDITIONS - UNIT 3

Jr. / Int. / Sr.

All exhibits will consist of the following:

- A. A completed manual (at least 6 chapter activities and at least 6 Reach the Pike activities completed each year) and e-Record presented in a sturdy binder/notebook including these items: appropriate sections in manual completed, e-Record and other items or attachments related to the activities in the manual.
- B. A display board illustrating a topic investigated during the project year. You may use diagrams, drawings, charts and photographs. Label and use captions to make your display as educational as possible. The standardized display board size of 4 ft. x 3 ft. is to be used with 4-H projects. No additional items may be included in front of the display board.
- C. Project will be evaluated on the quality of the information completed in the e-record (25 percent) and quality of the exhibit (75 percent).

Section #3 Shooting Sports

Project Exhibit Rules:

1. Be sure to include the log for the discipline that you are exhibiting.
2. There is one e-record that contains the inventory sheet and discipline log for all the disciplines that are required for this project.
3. Display should illustrate a chosen aspect of skill areas. This is separate from the State 4-H Shooting Sports Championships (<http://www.co4hshooting.org/>). (The standardized display board size of 4ft. x 3ft. is to be used with 4-H projects. No additional items may be included on or in front of display board). No wooden display cases.
4. Counties may enter only one exhibit per class. Members may have entries in both the display board classes and the stand-alone classes.
5. No live ammo, tipped arrows (including field points, broad heads), knives, functional or nonfunctional firearms or bows will be allowed as an exhibit. Cardboard, paper cutouts or décor resembling firearms or bows are allowed for display purposes in the display stand-alone classes.
6. Do not use the word weapon when creating your display. Make sure that there are no safety violations in you display. (Example: no earplugs, no safety glasses on a photo of a youth firing his/her gun). Do not use pictures of primarily tactical design firearms in the display, i.e., AR platform or military type firearms.
7. The display boards topics should stay in close relationship with your discipline. Please do not use topics outside the scope of you 4-H project. (Example: .22 Rifle Project- should not use the topic of different types of military machine guns).
8. Stand- alone items are items that are made to enhance the discipline, such as a quiver, gun case, gun stand, etc. No display boards are allowed in the Stand-Alone Classes.
9. For those items that will be displayed on the floor there will be a maximum size of 3ft in width and depth and 7ft in height, because of limited floor space. The item must be stable when standing to be displayed. If an exhibit is larger than this, a notebook can be used as an exhibit showing how and what was made.
10. For those members who are exhibiting both a display board and a stand-alone, they may copy their e-record. Each exhibit must have an e-record. Be sure to highlight what you are exhibiting in your e-record.
11. No stand- alone items that are an exhibit at the time of the contests will be allowed to be removed from the building to be used at the contest.

AIR RIFLE

Air Rifle

Jr. / Int. / Sr.

SHOTGUN

Shotgun

Jr. / Int. / Sr.

.22 RIFLE

.22 Rifle Jr. / Int. / Sr.

.22 PISTOL

.22 Pistol Jr. / Int. / Sr.

BLACK POWDER MUZZLELOADING

Muzzleloading Jr. / Int. / Sr.

AIR PISTOL

Air Pistol Jr. / Int. / Sr.

WESTERN HERITAGE

Western Heritage Jr. / Int. / Sr.

OUTDOOR SKILLS

Outdoor Skills Jr. / Int. / Sr.

Note: Members must have entries in both the display board classes and the stand-alone classes.

Stand- Alone Classes

These Classes are for stand- alone items only. No display boards are allowed in the Stand- Alone Classes. Please see rule no. 8. No live ammo, broadheads (ex: arrowheads), knives, functional or nonfunctional firearms or bows will be allowed to be displayed.

ARCHERY

Archery Stand Alone Jr. / Int. / Sr.

AIR RIFLE

Air Rifle Stand Alone Jr. / Int. / Sr.

SHOTGUN

Shotgun Stand Alone Jr. / Int. / Sr.

.22 RIFLE

.22 Rifle Stand Alone Jr. / Int. / Sr.

.22 PISTOL

.22 Pistol Stand Alone Jr. / Int. / Sr.

AIR PISTOL

Air Pistol Stand Alone Jr. / Int. / Sr.

WESTERN HERITAGE

Western Heritage Stand Alone Jr. / Int. / Sr.

OUTDOOR SKILLS

Outdoor Skills Stand Alone Jr. / Int. / Sr.

BLACK POWDER MUZZLELOADING

Muzzleloading Stand Alone Jr. / Int. / Sr.

All exhibits will consist of the following.

A. Completed e-Record for the discipline exhibited presented in a sturdy binder/notebook.

B. **Specific discipline e-Record is required. It can be found at:**

http://www.colorado4h.org/project_resources/erecords/index.php

C. **A Discipline Record Log Sheet is required. It can be found at:**

http://www.colorado4h.org/project_resources/erecords/index.php

D. **Display Exhibit:** One display board illustrating something learned in the project this year. The standardized display board size of 4ft. x 3ft. is to be used with 4-H projects. No additional items may be included in front of display board.

For Stand- Alone Exhibits: One article which you have made as a part of the project this year. (Example: gun stocks, decoys, quivers, but not limited to these.) No live ammo, broadheads, (ex: arrowheads), knives, functional or nonfunctional firearms or bows will be allowed to be displayed.

E. Project will be evaluated on the quality of the information competed in the e-record (25 percent) and quality of the exhibit (75 percent).

**Section #3
SPORTFISHING**

Exhibits may include stand-alone items such as hand-wrapped rods or hand-made lures.

Exhibit of record kept during the year and display illustrating a chosen aspect of skill area is required. (The standardized display board size of 4 ft. x 3 ft. is to be used with 4-H projects. No additional items may be included in front of display board.)

Members may have entries in both the display board classes and the stand-alone classes.

For those members who are exhibiting both a display board and a stand-alone, they may copy their e-record. Each exhibit must have an e-record. Be sure to highlight what you are exhibiting in your e-record.

DISPLAY BOARD PROJECTS

- TAKE THE BAIT - UNIT 1** Jr. / Int. / Sr.
- REEL IN THE FUN - UNIT 2** Jr. / Int. / Sr.
- CAST INTO THE FUTURE - UNIT 3** Jr. / Int. / Sr.

STAND ALONE PROJECTS

- TAKE THE BAIT - UNIT 1** Jr. / Int. / Sr.
- REEL IN THE FUN - UNIT 2** Jr. / Int. / Sr.
- CAST INTO THE FUTURE - UNIT 3** Jr. / Int. / Sr.

All exhibits will consist of the following:

- A. Completed Sportsfishing e-Record presented in a sturdy binder/notebook.
- B. Include the following information on the project information page.
 - 1. Record each fishing experience:
 - a. date
 - b. location
 - c. type (pond, lake, reservoir, stream, river or other)
 - d. name of body of water
 - e. if you catch fish (if no, what do you think the reason was for not catching fish),
 - f. if yes, include the following weather information about the day: time of day, air temperature, water temperature, cloud cover and other information about the weather.
 - 2. Complete a Catch and Release Fish for your five best fish, caught and released or your five best fish kept, depending on legal limits.
 - a. species, length (nose to tail)
 - b. girth (around middle)
 - c. approximate weight.
 - 3. Complete a Fishing Journal for each trip (whether you caught fish or not):
 - a. rod and reel used;
 - b. types of rig/bait/lure used
 - c. technique used
 - d. types of structure fished
 - e. other things you want to remember about this trip.
- C. Exhibits may include a display board or a stand-alone item such as hand-wrapped rods or hand-made lures. A display board is to be a specific skill level area related to the exhibit. When using a display board, it is strongly recommended to use photos, drawings or other illustrations rather than actual items (i.e. rods, reels, other tackle or accessories). Educational materials shall not extend beyond the edges of display boards. The standardized display board size of 4 ft. x 3 ft. is to be used with 4-H projects. No additional items may be included in front of display board. Hooks must be removed from lures and jigs when these items are used in an exhibit. The exceptions are artificial flies, which may be exhibited with functional hooks, but the hook points must be imbedded in material (i.e. rubber, dense cork, etc.) that will secure the flies and offer safety to the judges and other show officials. **Be sure to remove barbs and any other sharp points.**
- D. No knives to be displayed.
- E. Project will be evaluated on the quality of the information completed in the e-record (25 percent) and quality of the exhibit (75 percent).

**Section #5
WILDLIFE**

For those members who are exhibiting both a display board and a stand-alone, they may copy their e-record. Each exhibit must have an e-record. Be sure to highlight what you are exhibiting.

- Unit 1 Wildlife Conservation- The Worth of Wild Roots** Jr. / Int. / Sr.
- Unit 2 Wildlife Conservation- Living Wild in an Ecosystem** Jr. / Int. / Sr.

Unit 3 Wildlife Conservation- Managing in a World with You and Me

Jr. / Int. / Sr.

STAND ALONE ITEMS (For all units)

Jr. / Int. / Sr.

All exhibits will consist of the following:

A. Completed Wildlife e-Record presented in a sturdy binder/notebook.

B. Include the following information on the Wildlife page. Show what you did and learned. Show evidence of your personal field experiences, study or observations.

C. A display board showing educational information about a topic of interest related to wildlife. **Follow the standardized display board size of 4 ft. x 3 ft.**

No additional items may be included in front of display board. Possible topics could include but not restricted to: species found in Colorado, wildlife habitats, role of predators, types of bird feed, or urban wildlife challenges.

D. **OR**, instead of a display board, exhibit may be a stand-alone item, such as a wildlife diorama, scrapbook with wildlife information, pictures and news, a bird feeder or bath, or wildlife track molds. Display items should illustrate something learned in the project this year.

E. Project will be evaluated on the quality of the information completed in the e-record (25 percent) and quality of the exhibit (75 percent).