

## DIVISION G - NATURAL RESOURCES

### G-1 Entomology

#### *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 in entomology are limited to insect specimens only.

1. Older members may start with Unit 2.
2. Each year 4-H members build on their collection by adding new insects as required by that particular unit. Refer to the exhibit requirements for the number of insects to collect for that unit.
3. Project will be evaluated on the quality of information completed in the manual and e-record (25 percent) and quality of exhibit (75 percent).
4. Regular insect pins required in all units.
5. Acceptable sizes of handmade entomology display boxes taken from the manual & kit:
  - 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
6. In Units 2 through 7, records must include date and location where insects were collected. Place this information on labels attached to insect pins.

### **Class**

1. Unit 1 - Let's Learn About Insects - Junior
2. Unit 1 - Let's Learn About Insects - Intermediate
3. Unit 1 - Let's Learn About Insects - Senior
- Exhibit will consist of the following:
  - A. Completed e-record and Entomology workbook presented in a sturdy binder/notebook.
  - B. 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"x16"x3".
4. Unit 2 - Learn More About Insects - Junior
5. Unit 2 - Learn More About Insects - Intermediate
6. Unit 2 - Learn More About Insects - Senior
- Exhibit will consist of the following:
  - A. Completed e-record and Entomology workbook presented in a sturdy binder/notebook.
  - B. Insect collection - display no fewer than 25 nor more than 75 adult insects in at least 6 different orders. Standard-sized display boxes with removable glass covers are required.
7. Unit 3 - Insect Habits and Controls - Junior
8. Unit 3 - Insect Habits and Controls - Intermediate
9. Unit 3 - Insect Habits and Controls - Senior
- Exhibit will consist of the following:
  - A. Completed e-record and Entomology workbook presented in a sturdy binder/notebook.
  - B. Insect collection - display no fewer than 75 nor more than 150 insects including a representative from at least 9 different orders, correctly labeled; (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.
10. Unit 4 - Insect Identification & Community Projects - Junior
11. Unit 4 - Insect Identification & Community Projects - Intermediate
12. Unit 4 - Insect Identification & Community Projects - Senior
- Exhibit will consist of the following:
  - A. Completed e-record and Entomology workbook presented in a sturdy binder/notebook.
  - B. Insect collection - display no fewer than 100 nor more than 250 insects in 10 different, correctly labeled orders. Standard-sized display boxes with removable glass covers are required.
13. Unit 5 - Immature Insects and Life Stages - Junior
14. Unit 5 - Immature Insects and Life Stages - Intermediate

15. Unit 5 - Immature Insects and Life Stages - Senior

Exhibit will consist of the following:

- A. Completed e-record and Entomology workbook presented in a sturdy binder/notebook.
- B. Display your regular insect collection.
- C. Display a collection of at least 10 larvae or immature insects in vials of rubbing alcohol or similar preservative.
- D. Display a special collection that is different from the one in Unit 3, including at least 10 insects.

16. Unit 6 - Exploring With Insects - Junior

17. Unit 6 - Exploring With Insects - Intermediate

18. Unit 6 - Exploring With Insects - Senior

Exhibit will consist of the following:

- A. Completed e-record and Entomology workbook presented in a sturdy binder/notebook.
- B. Report on at least 3 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.

19. Unit 7 - Exploring With Insects - Advanced - Junior

20. Unit 7 - Exploring With Insects - Advanced –  
Intermediate

21. Unit 7 - Exploring With Insects - Advanced - Senior

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' X 3' is to be used for 4-H projects. No additional items may be included in front of display board.

## **G-2 Sportfishing**

Exhibit of record kept during the year and display illustrating a chosen aspect of skill area is required.

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

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.

Stand-alone items must not exceed 3 feet in width and depth and 7 feet in height. The item must be stable when standing in order to be displayed. If an exhibit is larger than these dimensions you may use a notebook as the exhibit and explain how and what was made.

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

### **Class**

- 1. Unit 1 - Take the Bait – Junior
- 2. Unit 1 - Take the Bait – Intermediate
- 3. Unit 1 - Take the Bait – Senior
- 4. Unit 2 - Reel in the Fun – Junior
- 5. Unit 2 - Reel in the Fun – Intermediate
- 6. Unit 2 - Reel in the Fun – Senior
- 7. Unit 3 - Cast into the Future – Junior
- 8. Unit 3 - Cast into the Future – Intermediate
- 9. Unit 3 - Cast into the Future – Senior

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

**The classes below are for stand-alone items only. No display boards are allowed in these classes**

- 10. Sportsfishing – Take the Bait - Stand Alone – Junior
- 11. Sportsfishing – Take the Bait - Stand Alone – Intermediate
- 12. Sportsfishing – Take the Bait - Stand Alone – Senior

13. Sportsfishing – Reel in the Fun - Stand Alone – Junior
14. Sportsfishing – Reel in the Fun - Stand Alone – Intermediate
15. Sportsfishing – Reel in the Fun - Stand Alone – Senior
16. Sportsfishing – Cast into the Future - Stand Alone – Junior
17. Sportsfishing – Cast into the Future - Stand Alone – Intermediate
18. Sportsfishing – Cast into the Future - Stand Alone – Senior

Exhibit for all units will consist of the following:

A. Completed Sportfishing 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 5 best fish, caught and released OR your 5 best fish kept, depending on legal limits.

- a. species, length (nose to tail)
- b. girth (around the 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' X 3' is to be used for 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.

### **G-3 Wildlife**

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

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

#### **Class**

1. Unit 1 - The Worth of Wild Root - Junior
2. Unit 1 - The Worth of Wild Root - Intermediate
3. Unit 1 - The Worth of Wild Root - Senior
4. Unit 2 - Living Wild in an Ecosystem - Junior
5. Unit 2 - Living Wild in an Ecosystem - Intermediate
6. Unit 2 - Living Wild in an Ecosystem - Senior

7. Unit 3 - Managing in a World With You & Me - Junior
8. Unit 3 - Managing in a World With You & Me - Intermediate
9. Unit 3 - Managing in a World With You & Me - Senior
10. All Units - Stand-Alone Item - Junior
11. All Units - Stand-Alone Item - Intermediate
12. All Units - Stand-Alone Item - Senior

Exhibits will consist of the following:

- A. Completed Wildlife e-record presented in a sturdy binder/notebook.
- B. Include the following 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. The standardized display board size of 4' X 3' is to be used for 4-H projects. 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.

#### **G-4 Outdoor Adventures**

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

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

#### **Class**

1. Unit 1 - Hiking Trails – Junior
2. Unit 1 - Hiking Trails – Intermediate
3. Unit 1 - Hiking Trails – Senior
4. Unit 2 - Camping Adventures – Junior
5. Unit 2 - Camping Adventures – Intermediate
6. Unit 2 - Camping Adventures – Senior
7. Unit 3 - Backpacking Expeditions – Junior
8. Unit 3 - Backpacking Expeditions – Intermediate
9. Unit 3 - Backpacking Expeditions – Senior

Exhibits will consist of the following:

- A. A completed manual 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' X 3' is to be used for 4-H projects. No additional items may be included in front of display board.

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