

## DEPARTMENT – BUILDING EXHIBITS

### SECTION - 4-H ENTOMOLOGY

#### (Must be enrolled in the Entomology Project)

#### SPECIAL RULES

1. Read General Rules. Violation of any of the following rules may result in disqualification. All decisions will be made by a county agent and their decision is final.
2. A 4-H member may exhibit in the Entomology Collection, Entomology Notebook and/or Educational Display classes in the Beginning, Intermediate or Advances phase in which they enroll. 4-H members who have been previously exhibited in Notebooks or Educational displays, need to start with the Beginning Phase of Entomology Collections, not the Introductory phase.
3. The Introductory phase is NOT a State Fair Class and should follow the guidelines as stated in the Class description.

#### General Guidelines

1. All entries should be submitted in an 18 x 24 x 3.5-inch wooden display box with a clear plastic top. Boxes can be handmade or purchased as long as they are of the correct size and do not have a Glass top. Visit website above for box instructions and plans.
2. During the transition, Orders & Family names should follow the taxonomy either
  - a. As printed in “Insects in Kansas” book or
  - b. As printed on the “Insects in Kansas Book: 2016 Revised Taxonomy”, which follows [www.bugguide.net](http://www.bugguide.net)
3. Each exhibitor is required to identify each box with two identification labels bearing Exhibitor’s name, county or district, the collection class 4-H’er is enrolled in and statement of taxonomy used:
  - a. “Insects in Kansas” book or
  - b. “Insects in Kansas Book: 2016 Revised Taxonomy”, which follows [www.bugguide.net](http://www.bugguide.net)

One label goes in the upper left corner of the box (inside) and the other on the lower right corner of the box (outside). Arrange specimens in the box so the box can be displayed lengthwise.

4. The number of orders, specimens (and families where required) must be included on the exhibitor’s box identification label. Only one adult insect per species can be used in the collection Box and Note Book Classes, unless labeled as male or female and correctly identified.
5. Arrangement of specimens: The preferred method is to arrange the insects in groups or rows parallel to the short sides of the box. Specimens are to be arranged by Order in the box, then family where required.
6. Two labels should be centered on the pin beneath each specimen. First (closest to the specimen) is the common name label and the second label should include date/locality. Full county name, state abbreviation should be on the second label.
7. The specimens should be collected by the exhibitor and should focus on Kansas insects. Insects may be collected from one county into bordering states and labeled accordingly. Please refer to “Entomology Collection Exhibit Resource” for full details on out-of-state insects in collections.
8. Only specimens of the class Insecta should be included.
9. Purchased insects are not to be exhibited in collections, but they may be used in educational displays.
10. Specimens of soft bodied insects such as aphids, lice, termites, etc. should be exhibited in alcohol filled vials; however, the use of alcohol filled vials should be limited to only those specimens that lose their shape when pinned, since the vials pose a significant hazard to the rest of the collection if they become loose in transit.

#### Educational Display Classes Guidelines

1. All entries should be submitted in an 18 x 24 x 3.5-inch wooden display box with a clear plastic

- top. Boxes can be handmade or purchased as long as they are of the correct size and do not have a glass top.
- Information on numbers and kinds of insects is not needed for educational exhibits.
  - Displays may consist of specialized groups of insects or their close relatives, or relate to any aspect of their behavior, biology or ecology.
  - Displays should be presented in a clear, concise, and interesting manner.
  - Displays should include only work performed during the current year.
  - Title of the exhibit should be indicated inside the box.
  - The purpose of the project is to learn more about the importance, life cycles, biology, ecology, diversity, etc. of insects and related arthropods. Subject matter can be as varied as the animals themselves.
  - Creativity is encouraged!

### **CLASSES - 4900: Beginning I Entomology Collection**

Display in one standard box a minimum of 50 and maximum of 125 species representing at least 7 orders. Follow the guidelines listed for Collections. Members can exhibit in this class a maximum of 3 years, or until they receive a purple ribbon at the Kansas State Fair, whichever comes first and then they are moved up a division.

#### **4901: Beginning II Entomology Collection**

Display in one standard box a minimum of 75 and maximum of 150 species representing at least 9 orders. Follow the guidelines listed for Collections. Members can exhibit in this class a maximum of 3 years, or until they receive a purple ribbon at the Kansas State Fair, whichever comes first and then they will be moved up a division.

#### **4902: Beginning Educational Display**

A 4-Her may enroll in this class if enrolled in Beginning I or II Collection/Notebook classes or if age 9-12. Follow the rules listed for the Educational displays.

#### **4903: Intermediate Entomology Collection**

Display a minimum of 100 and a maximum of 300 species representing at least 10 orders. Two standard boxes can be used. Follow the general guidelines listed for Collections. In addition, family identification is required for all insects in any two of the following six orders: orders of Orthoptera, Hemiptera, Odonata, Coleoptera, Diptera, and/or Hymenoptera. Members can exhibit in this class a maximum of 3 years.

#### **4904: Intermediate Educational Display**

A 4-Her may enroll in this class if enrolled in Intermediate Collection/Notebook classes or if age 11-14. Follow the rules listed for the Educational displays

#### **4905: Advanced Entomology Collection**

Display a minimum of 150 and a maximum of 450 species representing at least 12 orders. Three standard boxes can be used. Follow the general guidelines listed for Collections. Family identification is required for all insects belonging to the six basic orders as outlined under the Intermediate phase. Family identification of insects in the remaining orders is optional, but desirable as long as accuracy is maintained. All butterflies appearing in the collection should be labeled with the correct common name. Members may continue to exhibit in this class at the Kansas State Fair for an unrestricted number of years as long as they remain eligible for 4-H membership.

#### **4906: Advanced Educational Display**

A 4-Her may enroll in this class if enrolled in Advanced Collection classes or if age 13 or older. Follow the general rules listed for the Educational displays.

#### **4907: Monarch Butterfly Educational Display:**

Monarch Butterflies were officially put on the Endangered Species List on July 21, 2022. Having the scientific name *Danatus plexippus*, this migratory butterfly is well known for its spectacular annual journey of up to 3,000 miles across the Americas. It is now threatened with extinction due to habitat loss and climate change. 4-Hers can play a critical role in helping to bring habitat back for the Monarch Butterfly. They can help educate the public on ways to establish food sanctuaries for this butterfly species and help bring them back from the threat of extinction.

1. Exhibits should teach the public about the Monarch Butterfly and/or ways to protect and conserve it. The information could show nectar sources for adult butterflies and food sources for caterpillars, Monarch tagging activities, collection of native milkweed and then packaging it to give to others to plant, a group working together to plant a Monarch friendly garden, ect.
2. 4-Hers may create a poster, notebook, standard size tri-fold, diorama, or other visual display that shows information on Monarch Butterflies.

### Notebook Classes Guidelines

1. Individual entries are to be placed for display in a three-ring notebook for competition.
2. Identification should follow the taxonomy included in [www.bugguide.net](http://www.bugguide.net).
3. Each exhibitor is required to identify the notebook by placing a Title Page in the front of the notebook bearing the exhibitor's name, county or district and class. The number of orders, specimens and families (required in Intermediate and Advanced classes) must also be included on the Title Page.
4. Species pages should be grouped according to order and should include one page per species.
5. Date, common name, full county name, state abbreviation and collector name should be included for each species.
6. If picture is taken on different dates/localities include information for both. A statement describing the host plant/habitat should be included.
7. A divider page is to be placed in front of each order of insects with the order name printed on the tab for the page and also on the front of the divider page.
8. For the Intermediate and Advanced classes, insects are also to be grouped by family behind each order divider.
9. List on a sheet of paper how many years you have been in this division of the project and what you did this year to improve your project if you have been in for more than one year. Place the paper just behind the Title Page in the front of your notebook.
10. Refer to the publication "Entomology Collection Notebook Guidelines" on the Kansas 4-H Entomology web page for more detailed rules for exhibiting.

#### **4908: Introductory Entomology Notebook**

Display a minimum of 10 and a maximum of 30 insect species representing at least six different orders. Follow the general guidelines listed for Notebooks. A 4-Her may exhibit in this class for a maximum of two years.

#### **4909: Beginning Entomology Notebook**

Display a minimum of 30 and a maximum of 60 insect species representing at least seven different orders. Follow the general guidelines listed for all Notebooks. A 4-Her may exhibit in this class for a maximum of three years.

#### **49010: Intermediate Entomology Notebook**

Display a minimum of 60 and a maximum of 100 species representing at least nine orders. Follow the general guidelines listed for Notebooks. Pictures in any two of the following six orders should be identified to family: Orthoptera, Hemiptera, Odonata Coleoptera, Diptera, and/or Hymenoptera. A 4-Her may exhibit in this class for a maximum of three years.

#### **4911: Advanced Entomology Notebook**

Display a minimum of 100 and a maximum of 200 species representing at least twelve orders. Follow the general rules listed for Notebooks. In addition, family identification is required for all insects in the following six orders: Orthoptera, Hemiptera, Odonata, Coleoptera, Diptera, and Hymenoptera. Family identification in the remaining orders is optional, but desirable as long as accuracy is maintained. Members may continue to exhibit in this class for an unrestricted number of years as long as they remain eligible for 4-H membership.

#### **Introductory Entomology Collection (Not a State Fair Class)**

Designed for beginners: display insects in small cardboard or plastic boxes (one or two boxes with a total display area no more than 130 square inches). Boxes can be homemade by placing a layer of polystyrene foam in the bottom of a shoe box, school box or storage container, or can be purchased from a biological supply company. The boxes should be covered with a piece of plastic wrap or acrylic glass taped across the top of box. Number of specimens: 15 minimum, 30 maximum. Number of

orders: six minimum. 4-Hers may exhibit in this class a maximum of two years.

**Introductory Entomology Notebook (Not a State Fair Class)**

Designed for beginners: display in one 3-ring notebook a collection of photos with a minimum of 10 and a maximum of 30 insect species representing at least six different orders. Species pages should be grouped according to order. (Notebooks should contain 15 to 60 photos). 4-Hers in their second year of this division need to list on a sheet of paper how many years you have been in this division of the project and what you did this year to improve your project. Place this paper just behind the Title Page in the front of your notebook. A 4-Her may exhibit in this class for a maximum of two years.