

# ENTOMOLOGY

Dept. EN

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.

## Collection Classes

### General Guidelines

1. All entries should be submitted in an 18x24x3.5 in 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.
2. Identification should follow the taxonomy included in [www.bugguide.net](http://www.bugguide.net)
3. Each exhibitor is required to identify each box by placing an identification label bearing exhibitor's name, county or district and the class. 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 it 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 adult specimens can be used in collection boxes.
5. Arrangement of specimens: The preferred method is to arrange the insects in groups or rows parallel to the short sides of the box. Arrangements that run lengthwise of the box are frequently downgraded in judging. Specimens are to be arranged by Order in the box, then family where required.
6. For each collection class, two labels will 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 and collector name on the second label are encouraged for 2015 and will be required in 2016. The specimens should be collected by the exhibitor and should focus on Kansas and neighboring states. Other specimens from the continental United States may be included as long as properly labeled.
7. Emphasis in judging will be placed on the overall variety of insects represented in the collection, accuracy of identification, skill and technique acquired in mounting of specimens, and overall arrangement and appearance of the collection.
8. 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.

**1320- Introductory Entomology** For 1<sup>st</sup> and 2<sup>nd</sup> year project members or members 7-8 years of age. Display in a cardboard box with a minimum of 15 and a maximum of 30 insects, representing at least 6 orders. See additional rules above. **Not eligible for the state fair.**

**1321-Beginning I Entomology Collection** Display in one standard box a minimum of 50 and a maximum of 125 species representing at least 7 orders. Follow the general 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.

**1322-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 general 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.

**1324-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.

**1326-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 unrestricted number of years as long as they remain eligible for 4-H membership.

## Notebook Classes

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 on 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.

**1328-Beginning I 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.

**1329- Beginning II 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.

**1330-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.

**1331-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 members.

#### **Educational Display Classes**

1. All entries should be submitted in an 18x24x3.5 in 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.
2. Information on numbers and kinds of insects is not needed for educational exhibits.
3. Displays may consist of specialized groups of insects or their close relatives, or relate to any aspect of their behavior, biology or ecology.
4. Displays should be presented in a clear, concise, and interesting manner.
5. Displays should include only work performed during the current year.
6. Title of the exhibit should be indicated inside the box.
7. 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.
8. Creativity is encouraged!

**1332-Beginning Educational Display** A 4-Her may enroll in this class if enrolled in Beginning I and II Collection/Notebook classes or if age 9-12. Follow the general rules listed for the Educational displays.

**1333-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 general rules listed for the Educational displays.

**1334-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.