

LEAVENWORTH COUNTY FAIR 2026

4-H ENTOMOLOGY

Superintendent: Lindsey Briggs

Exhibit Judging: Tuesday, July 28th at 1pm; East End Administration Building (consultation)

If you've ever chased butterflies, caught a ladybug for a closer look, or planted a pollinator garden, the entomology project may be a great fit. You'll learn the anatomy of insects; the importance of pollinators, make an insect net; and possibly create an insect collection. Later, you'll study how insects move, learn about insecticides and explore insect behavior.

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. All entries should be submitted in an 18 x 24 x 3.5-inch wooden display box with a clear plastic top (such as Plexiglas). Boxes can be handmade or purchased as long as they are of the correct size. [Box instructions and plans.](#)
3. 4-H members may choose to use one of two taxonomies:
 - a. Option A: As printed in "Insects in Kansas" book, or
 - b. Option B: which follows www.bugguide.net.
4. 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. 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.
5. The number of orders, specimens (and families where required) must be included on both of the exhibitor's box identification labels. Only one adult insect per species can be used in the Collection Boxes and Notebook Classes, unless labeled as male or female and correctly identified.
6. Arrange specimens 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.
7. 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 and state abbreviation should be on the second label. Collector's name (or host) on the date/locality label is optional.
8. 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.
9. Only specimens of the class Insecta should be included.
10. Purchased insects are not to be exhibited in collections, but they may be used in educational displays.
11. 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.
12. Any major violation of rules will result in the exhibit being dropped one ribbon placing.

Examples would include, but are not limited to: incorrect display box size, missing paperwork, feet on display boxes, no special project in notebooks, etc.

13. After the first year in Entomology, all 4-H members need to add an 8 ½ by 11-inch sheet of paper to their collection that states what they did to improve their collection for the current year. This should include how many new insects were added to the display box (please list), how many insects were replaced in the display box (please list), and number of new orders and/or families were added to the display box. Other optional things that could be included are number of insects caught for the year, number of new Orders added this year, number of talks and/or demonstrations given, activities participated in, leadership roles, etc. This paper should be taped to the upper left corner on the front of your display box.
14. The following insects are listed as Threatened or Endangered by the Fish and Wildlife Service. Because of this, no specimens of the below species may be caught or displayed in insect collections or educational displays. If specimens of these species are included in collections or educational displays, it will be counted as a major violation. Any major violation of rules will result in the exhibit being dropped one ribbon placing. Please refer to www.kanas4-h.org on the Entomology project page for more information.
 - a. American Burying Beetle (*Nicrophorus americanus*)
 - b. Monarch Butterfly (*Danaus plexippus*)
 - c. Eastern Regal Fritillary Butterfly (*Argynnis idalia idalia* or *Speyeria idalia*)
 - d. Western Regal Fritillary Butterfly (*Argynnis idalia occidentalis* or *Speyeria occidentalis*)
 - e. Great Spangled Fritillary (*Speyeria cybele*)
15. Threatened or endangered species cannot be displayed in collections, BUT pictures are allowed. Pictures must be of the live species. Youth cannot kill the insects to take pictures or damage the habitat.
16. A minimum of 10 new specimens must be added and/or replaced each year.
17. Do not put the spindle-shaped bag of a Bagworm in your collections (as a female example of the species.) These bags must be cut open to determine if the caterpillar inside is a male or female. Opening the box to confirm the ID correctness could pose a significant risk to the collection.
18. “Exhibits are entered and displayed at the risk of the exhibitor.” For projects displayed in box-style exhibits—such as Entomology or Geology—that must be opened for judging, exhibitors may choose to include a closure mechanism on the box. While closures are not required, their use will not result in a ribbon deduction. Acceptable options include Velcro strips or hook-style fasteners. Closures should not interfere with the box’s ability to be displayed on a shelf and must not be lockable.

Notebook Rules:

1. Individual entries are to be placed for display in a three-ring notebook for competition. For the Intermediate and Advanced level, two notebooks may be used. A Title Page must be placed in the front of the second notebook. (Refer back to Rule #3 in Notebook Rules).
2. 4-H members who have been previously enrolled in or are currently enrolled in the other phases of the Entomology project need to start with the Beginning I Phase of Entomology Notebooks, not the introductory phase.

3. Each exhibitor is required to identify the notebook by placing a Title Page in the front of the notebook bearing the exhibitors name, county or district and class 4-H'er is enrolled in and statement of taxonomy used:
 - a. Option A: "Insects in Kansas" book, or
 - b. Option B: which follows www.bugguide.netThe number of orders, specimens and families (required in Intermediate and Advanced classes) must also be included on the Title Page.
4. Specimen pages should be grouped according to order and should include one page per species. If more than one insect is in the photo, an arrow to indicate identified insect should be used.
5. Date, common name, full county name and state abbreviation should be included for each species. Collector's name on the specimen page is optional.
6. Specimen pages should have two different views of the insect if possible. If pictures are taken on different dates/localities, include information for both.
7. A statement describing the habitat where found/host plant may be included and is encouraged and will be worth a bonus 10 points total, not per page. For Intermediate and Advanced notebooks, this is strongly encouraged.
8. 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 as well on the front of the divider page.
9. For the Intermediate and Advanced classes, insects are also to be grouped by family behind each order divider.
10. After the first year in Entomology, all 4-H members need to add an 8 ½ by 11-inch sheet of paper to their Photo Collection Notebook that states what they did to improve their notebook for the current year. This should include how many new insect photo pages were added to the Notebook (please list), how many insect photo pages were replaced in the Notebook (please list), and number of new orders and/or families added to the Notebook. Other optional things that could include are number of insects photographed for the year, number of new Orders added this year, number of talks and/or demonstrations given, activities participated in, leadership roles, etc. This paper should be placed right behind the Title Page in your Notebook.
11. A special project must be completed each year and included in the notebook. See project guideline materials for specifications.
12. Any major violation of rules will result in the exhibit being dropped one ribbon placing. Examples would include, but are not limited to: incorrect photo size, missing paper work no special project in notebooks, etc.
13. A minimum of 10 photo pages of new species must be added and/or replaced each year.

Educational Display Rules:

1. Share with others what you learned in this project. Exhibit any activity or learning experience related to the field of entomology or the Teaming with Insects curriculum that does not fit into Entomology Collection or notebook classes above.
2. Follow copyright laws as explained in the General Rules.
3. The exhibit may be, but isn't limited to, original works, digital presentation (must provide printed hardcopy), programs, websites, games, apps, display box, notebook, display or poster which you have made.
4. If the exhibit is a wooden display box, it must be 18 X24 X 3.5 inches with a clear plastic top (such as plexiglass) and displayed horizontally. If the exhibit is a poster, it

must not be larger than 22" X 28". If the exhibit is a display, maximum size is not to exceed a standard commercial 3' X 4' tri-fold display board.

5. Name and county/ district must clearly be marked on educational exhibits.
6. Refer to Entomology General Rule 14 for information on Threatened and Endangered Species specimens that cannot be displayed in Educational Exhibits.
7. Any major violation of rules will result in the exhibit being dropped one ribbon placing. Examples would include, but are not limited to: incorrect display box size, missing paper work, feet on display boxes, no reference for information and/or photos, etc.

Monarch Butterfly Educational Display Rules:

Monarch Butterflies were officially put on the Endangered Species list on July 21, 2022. Having the specific 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 the habitat loss and climate change. 4-H members can play a critical role in helping 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 the packaging it to give to others to plant, a group working together to plant a Monarch friendly garden, ect.
2. 4-H members may create a poster, notebook, standard size tri-fold diorama, slide show or other visual display that shows information on Monarch Butterflies.
3. Specimens of the actual Monarch Butterfly insect, caterpillars, or chrysalis **MAY NOT BE USED** in these displays.
4. If a slide show is created, it should be presented with a printed copy of the presentation.

Scoresheets, Forms, and Contest Study Materials:

[Collections Scorecard](#)

[Educational Exhibit Scorecard](#)

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 must move 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 must move 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.

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 I 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.

4910: Beginning II Entomology Notebook

Display a minimum of 40 and a maximum of 70 insect species representing at least 8 different orders. Follow the general guidelines listed for all Notebooks, including the Special project. Members can exhibit in this class for a maximum of 3 years or until they receive a purple ribbon at the Kansas State Fair.

4911: 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.

4912: 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.

Resources:

[Teaming with Insects Curriculum](#) Under Project Materials drop down menu
[Entomology Collection Notebook Guidelines](#)
www.bugguide.net
[Insects in Kansas](#)

Project Area - [Entomology](#)