

Entomology 2023 CDE Guidelines

Overview

FFA Chapters can register a team composed of up to 4 members for the Entomology CDE. All team members must take the exam during the same exam period. The top 3 individual scores will be used to assess and rank the Chapter's team. All individual scores will be posted.

The Entomology CDE is scheduled as a 90-minute exam, consisting of two parts: (A) Identification and (B) Written. Students will be randomly split into two groups to start with either the Identification or Written portion of the exam. After 40 minutes, the two groups will switch to the other portion of the exam and be granted 40 minutes to complete the second half. Students are permitted to leave once they have completed both portions of the exam.

NO CELL PHONES OR ELECTRONIC DEVICES PERMITTED. THE USE THEREOF WILL RESULT IN AUTOMATIC DISQUALIFICATION!!!!

Exam Details

A. Identification

There will be 50 specimens, with one specimen at each station. For each station, students will have 30 seconds allotted to identify the specimen by the proper common name listed in the FFA Entomology CDE Specimen List (2022-2023). For specimens listed as a specific species, only the species name will be accepted as the correct answer even if the specimen belongs to a larger group of insects as well. An example would be if the station had an alfalfa weevil. Only "alfalfa weevil" would be accepted as the correct answer, not "weevil," even though this specimen also belongs to the larger group.

There will be no duplicate specimens. Once a station has been visited, *there will be no "return-visits" to re-examine specimens*. Students are permitted to bring magnifying glasses if desired, however stations for which a magnifying glass is considered necessary will have a magnifying glass provided by the exam administrators.

B. Written

Emphasis will be placed on identifying characteristics, food habits, habitat, pest management considerations and economic importance of representative insects. There will be 40 multiple-choice and fill-in-the-blank questions drawn from information found in the *Household Pests of Kansas* KSU extension guide material and *Insects in Kansas*. An additional 5 questions, chosen for difficulty, will be optional. Results from these 5 questions will only be used to break tie scores on the first 40 questions. Approximately 40 minutes are allowed to complete the test.

Information drawn as test material from *Insects in Kansas* will vary based on how specific the insect name on the official list is. That is, if the name on the official list is a general name for a group of insects, such as "Lady Beetle" or "Leafhopper", only the introductory material presented in *Insects in Kansas* for those insects might be used on the test. For example, "Lady Beetle" is listed as one of the official insects, but *Insects in Kansas* discusses 7 species of lady beetles. Thus, any test questions drawn for "Lady Beetle" from *Insects in Kansas* would be from the introductory section on the Coccinellidae. Conversely, because "Western Corn Rootworm" and "Chinch Bug" are individual species on the official insect list and have specific information sections in the book, test material might be drawn from the information given for that specific individual species.

Information drawn from *Household Pests of Kansas* and *Insects in Kansas* concerning pests, Integrated Pest Management (IPM), basic biology, and collection and curation of insect specimens may be used on the test.

After the entire 90-minute examination period and all students have completed the exam, participants may ask questions regarding the insect specimens on the Insect ID Test, or the answers to questions appearing on the Written Test. Students and instructors are NOT permitted to take photos of specimens or written exam during or after the exam but may go over the specimens with the Entomology CDE volunteers if desired.

Access to Study Materials

- A. Collections and *Insects in Kansas* Books.** Insect collections and *Insects in Kansas* may be purchased from KSU Popenoe Entomology Club within the Department of Entomology.
- B. *Household Pests of Kansas*.** Extension publication by the KSU Department of Entomology Extension Services available online or at the following link: [MF3291 Household Pests of Kansas \(ksu.edu\)](#).

Inquiries regarding the exam or study materials should be directed to the current Popenoe Entomology Club FFA Coordinators by email (popenoe@ksu.edu) or online (<https://popenoe.org/>).

FFA Entomology CDE Specimen List (2022-2023)

The list below includes the order names and the common names of the representative species. Remember there can be variation in size and general appearance among specimens within a group.

Coleoptera

1. Bean leaf beetle
2. Blister beetle
3. Click beetle
4. Colorado potato beetle
5. Carrion beetle
6. Dermestid beetle
7. Green June beetle
8. Firefly
9. Ground beetle
10. Lady beetle
11. Long horned beetle
12. May/June beetle
13. Weevil
14. Alfalfa weevil
15. Soldier beetle
16. Spotted cucumber beetle
17. Tiger beetle
18. Water beetles*
19. Flour beetle
20. Japanese beetle
76. Rove beetle**

Diptera

21. Blow Fly
22. Flower fly
23. Horse fly
24. House fly
25. Mosquito
26. Midges
58. Robber fly**
71. Fruit fly**
72. Tachinid fly**
73. Crane fly**

Hemiptera

27. Scentless plant bugs

28. Chinch bug
29. Lace bug
30. Assassin bug
31. Squash bug
32. Stink bug
33. Tarnished plant bug
34. Water strider
35. Cicada
36. Leafhopper
37. Planthopper
38. Scale insect
39. Aphids
74. Treehopper**
75. Leaffooted bugs**

Hymenoptera

40. Ant
41. Bumble bee
42. Honey bee
43. Ichneumon wasp
44. Sphecid wasp
45. Sweat bee
46. Vespid wasp
47. Carpenter bee

Isoptera

48. Termite

Lepidoptera

49. Alfalfa caterpillar
- butterfly
50. Bagworm
51. Cutworm
52. Corn earworm moth
53. Painted lady

54. Indian meal moth
55. Tomato/tobacco hornworm moth

Neuroptera

56. Lacewing

Thysanoptera

57. Thrips

Odonata

59. Damselfly
60. Dragonfly

Orthoptera

61. Cricket
62. Shorthorned grasshopper
63. Longhorned grasshopper

Blattodea

64. American cockroach
65. German cockroach

Plecoptera

67. Stonefly

Tricoptetra

68. Caddisfly

Ephemeroptera

69. Mayfly

Siphonaptera

70. Flea

Mantodea

78. Praying mantis

*18. *Water beetles* may include one of the following specimens: predacious diving beetles (Dytiscidae), whirling beetles (Gyrinidae), water scavenger beetle (Hydrophilidae).

**Note: there might not be consecutive numbers accompanying each insect name. Numbers are used as a reference for FFA officers

