



INSECT STUDY MERIT BADGE WORKBOOK

This Scoutmaster Bucky Merit Badge Workbook is based off the 2020 Scouts BSA Requirements.

Consider also using the Insect Study merit badge class preparation page for clarification and expectations when participating in a Scoutmaster Bucky merit badge opportunity (online or in-person).

<https://scoutmasterbucky.com/merit-badges/insect-study/>

Scout's Name:

REQUIREMENT 1: Do the following:

REQUIREMENT 1A: Explain to your counselor the most likely hazards associated with exposure to ants and bees and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.

REQUIREMENT 1B: Discuss the prevention of and treatment for health concerns that could occur while working with ants and bees, including insect bites and anaphylactic shock.



REQUIREMENT 2: Tell how insects are different from all other animals. Show how insects are different from centipedes and spiders.

REQUIREMENT 3: Point out and name the main parts of an insect.

4 Describe the characteristics that distinguish the principal families and orders of insects.

REQUIREMENT 5: Do the following:

REQUIREMENT 5A: Observe 20 different live species of insects in their habitat. In your observations, include at least four orders of insects.



REQUIREMENT 5B: Make a scrapbook of the 20 insects you observe in 4a. Include photographs, sketches, illustrations, and articles. Label each insect with its common and scientific names, where possible. Share your scrapbook with your merit badge counselor.

REQUIREMENT 6: Do the following:

REQUIREMENT 6A: From your scrapbook collection, identify three species of insects helpful to humans and five species of insects harmful to humans.

REQUIREMENT 6B: Discuss the use of integrated pest management vs. chemical methods of insect control. What are the advantages and disadvantages of each?



REQUIREMENT 7: Explain the symbiotic relationship between bees and humankind. Explain what colony collapse disorder (CCD) is and some of the possible causes. Discuss how CCD affects our food supply.

REQUIREMENT 8: Compare the life histories of a butterfly and a grasshopper. Tell how they are different.

REQUIREMENT 9: Raise an insect through complete metamorphosis from its larval stage to its adult stage (e.g., raise a butterfly or moth from a caterpillar).

*Some insects are endangered species and are protected by federal or state law. Every species is found **only** in its own special type of habitat. Be sure to check natural resources authorities in advance to be sure that you will not be collecting any species that is known to be protected or endangered, or in any habitat where collecting is prohibited. In most cases, all specimens should be returned at the location of capture after the requirement has been met. Check with your merit badge counselor for those instances where the return of these specimens would not be appropriate.*

REQUIREMENT 10: Do ONE of the following:



REQUIREMENT 10A: Observe an ant colony in a formicarium (ant farm). Find the queen and worker ants. Explain to your counselor the different chambers found within an ant colony.

REQUIREMENT 10B: Study a hive of bees. Remove the combs and find the queen. Estimate the amount of brood and count the number of queen cells. Explain how to determine the amount of honey in the hive.

REQUIREMENT 11: Tell things that make social insects different from solitary insects.

REQUIREMENT 12: Tell how insects fit in the food chains of other insects, fish, birds, and mammals.



REQUIREMENT 13: Find out about three career opportunities in insect study. Pick one and find out the education, training, and experience required for this profession. Discuss this with your counselor, and explain why this profession might interest you.