



Please contact the Learning Center Coordinator and let us know you are interested in the Scout Ranger Program at Flight 93 National Memorial. We will answer questions and provide further information to help you work toward the patch or certificate.

Danielle D. Miller – Learning Center Coordinator  
Work: (814) 893-6573 Cell: (814) 341-6763

## Insect Study



### Requirements:

1. Do the following:
  - a. 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.
  - b. Discuss the prevention of and treatment for health concerns that would occur while working with ants and bees, including insect bites and anaphylactic shock.
2. Tell how insects are different from all other animals. Show how insects are different from centipedes and spiders.
3. Point out and name the main parts of an insect.
5. Do the following:
  - a. Observe 20 different live species of insects in their habitat. In your observations, include at least four orders of insects.
  - b. Make a scrapbook of the 20 insects you observe in 5a. Include photographs, sketches, illustrations, and articles. Label each insect with its common and scientific names, where possible. Share your scrapbook with our merit badge counselor.
6. Do the following:
  - a. From your scrapbook collection, identify three species of insects helpful to humans and five species of insects harmful to humans.

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.
8. Compare the life histories of a butterfly and a grasshopper. Tell how they are different.
10. Do ONE of the following:
  - b. 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.
11. Tell things that make social insects different from solitary insects.
12. Tell how insects fit in the food chains of other insects, fish, birds, and mammals.

