



# INSECT STUDY

## Merit Badge Requirements

- 1) Tell how insects are different from all other animals. Show how insects are different from centipedes and spiders.
- 2) Point out and name the main parts of an insect.
- 3) Collect and mount fifty different species. Include six orders and eighteen families of insects. Label each with common and scientific names, where possible.  
*\*NOTE: 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 resource 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.*
- 4) Describe the characteristics that distinguish the principal families and orders of insects.
- 5) Show your collection.
- 6) Compare the life histories of a butterfly and a grasshopper. Tell how they are different.
- 7) Raise an insect through the complete metamorphosis from its larval stage to its adult stage (eg, raise a butterfly or moth from a caterpillar).
- 8) Tell the things that make social insects different from solitary insects.
- 9) Observe an ant colony or a beehive. Tell what you saw.
- 10) From your collection, identify:
  - A) Four species of insects helpful to humans.
  - B) Six species of insects harmful to humans. Describe some general methods of insect control.
- 11) Tell how insects fit in the food chains of other insects, fish, birds, and mammals.

**Requirement 1**

How are insects different from all other animals? \_\_\_\_\_

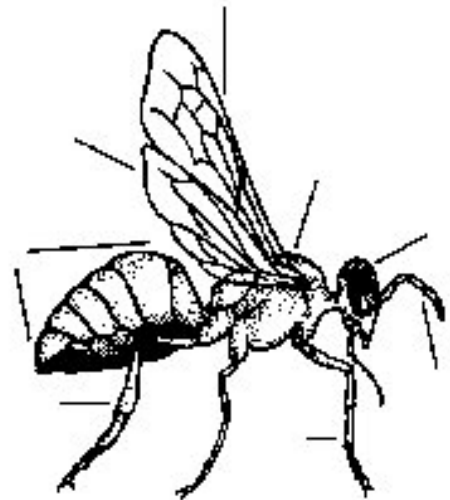
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How are insects different from centipedes and spiders? \_\_\_\_\_

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\_\_\_\_\_  
\_\_\_\_\_

**Requirement 2**

Point out and name the main parts of an insect.



**Requirement 3**

Collect and mount 50 different species. Include six orders and eighteen families of insects. Label each with common and scientific names, where possible.

What six orders did you include in your collection?

\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_  
\_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_

What were the eighteen families that you included in your collection?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Requirement 4**

Describe the characteristics that distinguish the principal families and orders of insects:

|                      |                               |
|----------------------|-------------------------------|
| Insect Family: _____ | Distinguishing Factors: _____ |
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| Insect Family: _____ | Distinguishing Factors: _____ |
| Insect Family: _____ | Distinguishing Factors: _____ |
| Insect Family: _____ | Distinguishing Factors: _____ |

**Requirement 5**

\_\_\_\_\_ Show your collection to your counselor.

**Requirement 6**

Describe/Explain the life history of a butterfly: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Describe/Explain the life history of a grasshopper: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

How are the life histories of these two insects different? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Requirement 7**

Raise an insect through complete metamorphosis from its larval stage to its adult stage.

What insect did you raise? \_\_\_\_\_

Give a brief summary of the process and the events you witnessed: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



**Requirement 11**

Tell how insects fit in the food chain of other insects: \_\_\_\_\_

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Tell how insects fit in the food chain of fish: \_\_\_\_\_

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Tell how insects fit in the food chain of birds: \_\_\_\_\_

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Tell how insects fit in the food chain of mammals: \_\_\_\_\_

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