

Please send a PDF of workbook to scouts@hmns.org. In the Subject line put “Blue Card Request”. The workbook will be checked that you have met the requirements and a blue card will be emailed back.

HOUSTON MUSEUM OF NATURAL SCIENCE

SCOUTS@HMNS

Insect Study Prerequisites Work

This class studies the wide variety of insect life in the world. Scouts will visit the Cockrell Butterfly Center.

HOMEWORK

Requirement 3b can be done before the class or the scouts will receive a mealworm to raise into a Darkling beetle. The scout will need to raise the beetle and send pictures to scouts@hmns.org.

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 counselor for those instances where the return of these specimens would not be appropriate.)

To complete the prerequisite work, scouts will need to go outdoors for several hours and have access to the internet or field guides (from library). Their insect scrapbook will be checked off individually and must be earned.

Work on requirements 4b,c and d, need be completed before the class. Scouts who do not complete this prerequisite work prior to class will need to take it to their scout master to sign off or **email a pdf to scouts@hmns.org with “Blue Card Request in the subject line.**

Requirement 4b c & d

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

Make a scrapbook of the 20 insects you observe in 4b. Include photographs, sketches, illustrations, and articles. Label each insect with its common and scientific names, where possible.

Make 20 copies of the last page or create your own scrapbook. However, you will need to include your own Insect observations section. Bring this scrapbook with you to the merit badge class.

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Instructions for Completing Insect Observation pages

For identifying insects, use the website <http://www.insectidentification.org/insects-by-state.asp?thisState=Texas> to help you find the common name, scientific name and the order.

Common name is what the species is usually called by non-entomologist, for example “monarch butterfly”. Generic names such as “ant, butterfly, caterpillar, or grub” are not acceptable common names.

Scientific name is the (genus and species) in Latin or Greek. A monarch butterfly’s scientific name is *Danaus plexippus*.

Order is the general group of insects that are similar. Ants, wasps and bees are in one order, Hymenoptera, while butterflies and moths are in another order, Lepidoptera. The order of the insects must be identified and there must be 4 different orders in your scrapbook.

Observations what the insect is doing, for example carrying food. Is it solitary, or with in a group of the same insects. Are there any distinguishing marks that will help identify the insect?

Types of habitat are grass, pond, forest etc. Place is city, or county and whether the insect was found at day or night.

Where to find Insects

Under boards and rocks, around lakes, streams, ponds or ditches, under loose bark, stumps or Logs, grass, crops, trees and in the air. *Safety note! Although many insects can be found by flipping a rock or a piece of wood over, never stick your hands where you can’t see what is lurking underneath. Use a tool like a stick to assist in moving objects.

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Species_____

Order_____

Scientific Name_____

Observations: (Carrying food, Social or Solitary, Distinguishing marks)

Type of Habitat and place:

Photographs, sketches, illustrations, and articles

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PREREQUISITE

4d. From your scrapbook collection, select eight species of insects and identify what role they play in the ecosystem. This will also be discussed in class.

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