

2010

NATURE
PROGRAM OVERVIEW
& WORKBOOK



STUHR MUSEUM

MERIT BADGE UNIVERSITY

OVERLAND TRAILS COUNCIL

7/31/2010

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(WILL BE COMPLETED DURING CLASS)

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(MUST HAVE UNIT LEADER SIGNATURE PRIOR TO CLASS)



FEBRUARY 2010

Information in this booklet was accurate at the time of publishing.
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Program Overview & Workbook was reviewed by
MBU Staff/Committee.

NATURE PROGRAM OVERVIEW

COUNSELOR: tba

C/O: Overland Trails Council
PO Box 1361
Grand Island, NE 68802-1361

LOCATION: Stuhr Museum

TRANSPORTATION: N/A

ADDITIONAL COSTS: None

CLASS SIZE: 10

BRING TO CLASS: Nature merit badge pamphlet.
Nature merit badge workbook, part one & part two.
Signed "Application for Merit Badge", found at the end of the merit badge workbook. (This will be your only record of work completed on this merit badge.) If your Council requires the official "blue card", you must bring one with you to class.

PRE-REQUISITES: Complete Part One of the workbook before class (requirement 4—need 4 additional choices). Complete information on "Application for Merit Badge" including Scoutmaster's signature.

CURRICULUM: Requirements 1, 2, 3, 4g or 4h will be completed during class (part two of the workbook). Pre-requisites will also be reviewed during class.



PRE-REQUISITE REQUIREMENTS ARE PRINTED IN **ITALICS &**
MUST BE COMPLETED BEFORE CLASS.

1. Name three ways in which plants are important to animals. Name a plant that is protected in your state or region, and explain why it is at risk.
2. Name three ways in which animals are important to plants. Name an animal that is protected in your state or region, and explain why it is at risk.
3. Explain the term "food chain." Give an example of a four-step land food chain and a four-step water food chain.
4. Do all of the requirements in FIVE of the following fields:
 - a) **Birds**
 - 1) **In the field, identify eight species of birds.**
 - 2) **Make and set out a birdhouse OR a feeding station OR a birdbath. List what birds used it during a period of one month.**
 - b) **Mammals**
 - 1) **In the field, identify three species of wild animals.**
 - 2) **Make plaster casts of the tracks of a wild mammal.**
 - c) **Reptiles and Amphibians**
 - 1) **Show that you can recognize the venomous snakes in your area.**
 - 2) **In the field, identify three species of reptiles or amphibians.**
 - 3) **Recognize one species of toad or frog by voice: OR identify one reptile or amphibian by eggs, den, burrow, or other signs.**
 - d) **Insects and Spiders**
 - 1) **Collect, mount, and label 10 species of insects or spiders.**
 - 2) **Hatch an insect from the pupa or cocoon; OR hatch adults from nymphs; OR keep larvae until they form pupae or cocoons; OR keep a colony of ants or bees through one season.**
 - e) **Fish**
 - 1) **Catch and identify two species of fish.**
 - 2) **Collect four kinds of animal food eaten by fish in the wild.**
 - f) **Mollusks and Crustaceans**
 - 1) **Identify five species of mollusks and crustaceans.**
 - 2) **Collect, mount, and label six shells**
 - g) Plants
 - 1) In the field, identify 15 species of wild plants.
 - 2) Collect and label the seeds of six plants OR the leaves of 12 plants.
 - h) Soils and Rocks
 - 1) Collect and identify soils found in different layers of a soil profile.

2) Collect and identify five different types of rocks from your area.

NOTE: In most cases all specimens should be returned to the wild at the location of original capture after the requirements have been met. Check with your merit badge counselor for those instances where the return of these specimens would not be appropriate.

Under the Endangered Species Act of 1973, some plants and animals are or may be protected by federal law. The same ones and/or others may be protected by state law. Be sure that you do not collect protected species.

Your state may require that you purchase and carry a license to collect certain species. Check with the wildlife and fish and game officials in your state regarding species regulations before you begin to collect.

NATURE WORKBOOK

PART ONE, PRE-REQUISITIES



Name _____
 Unit # _____ District _____
 Council _____

Part One of the workbook must be completed before class.

Bring the entire workbook (part one and part two) with you to class.

Also bring the "Application for Merit Badge" signed by your scoutmaster (included at the end of the workbook).

4. Do all of the requirements in FIVE of the following fields:

BIRDS

a) Birds
 1) In the field, identify eight species of birds.

Identify eight species of birds:

1
2
3
4
5
6
7
8

2) Make and set out a birdhouse OR a feeding station OR a birdbath. List what birds used it during a period of one month.

Birdhouse, feeding station or birdbath:

	<i>Initial:</i>	<i>date:</i>
<i>Make a List of Birds for One Month</i>		
1	11	
2	12	
3	13	
4	14	
5	15	
6	16	
7	17	
8	18	
9	19	
10	20	

Name _____

MAMMALS

- b) Mammals
- 1) In the field, identify three species of wild animals.

Identify three species of wild animals:

1

2

3

- 2) Make plaster casts of the tracks of a wild mammal.

Make plaster casts of the tracks of a wild mammal:

REPTILES and AMPHIBIANS

- c) Reptiles and Amphibians
- 1) Show that you can recognize the venomous snakes in your area.

Show that you can recognize the venomous snakes in your area :

- 2) In the field, identify three species of reptiles or amphibians.

Identify three species of reptiles or amphibians:

1

2

3

- 3) Recognize one species of toad or frog by voice: OR identify one reptile or amphibian by eggs, den, burrow, or other signs.

Recognize one species of toad or frog by voice:

--

OR Identify one reptile or amphibian by eggs, den, burrow, or other signs:

--

Name _____

INSECTS and SPIDERS

- d) Insects and Spiders
 - 1) Collect, mount, and label 10 species of insects or spiders.

Collect, mount, and label 10 species of insects or spiders:

1	6
2	7
3	8
4	9
5	10

- 2) Hatch an insect from the pupa or cocoon; OR hatch adults from nymphs; OR keep larvae until they form pupae or cocoons; OR keep a colony of ants or bees through one season.

Hatch an insect from the pupa or cocoon:

--

OR Hatch adults from nymphs:

--

OR Keep larvae until they form pupae or cocoons:

--

OR Keep a colony of ants or bees through one season:

--

FISH

- e) Fish
 - 1) Catch and identify two species of fish.

Catch and identify two species of fish:

1	2
---	---

- 2) Collect four kinds of animal food eaten by fish in the wild.

Collect four kinds of animal food eaten by fish in the wild:

1	3
2	4

Name _____

MOLLUSKS and CRUSTACEANS

- f) Mollusks and Crustaceans
 - 1) Identify five species of mollusks and crustaceans.

Identify five species of mollusks and crustaceans:

1
2
3
4
5

- 2) Collect, mount, and label six shells

Collect, mount, and label six shells:

1
2
3
4
5
6

Name _____

3. Explain the term "food chain." Give an example of a four-step land food chain and a four-step water food chain.

Explain the term "food chain":

Give an example of a four-step land food chain:

--

Give an example of a four-step water food chain:

--

4. Do all of the requirements in FIVE of the following fields:

PLANTS

- g) Plants
 1) In the field, identify 15 species of wild plants.

In the field, identify 15 species of wild plants:

1	6	11
2	7	12
3	8	13
4	9	14
5	10	15

- 2) Collect and label the seeds of six plants OR the leaves of 12 plants.

Collect and label the seeds of six plants:

1	3	5
2	4	6

OR the leaves of 12 plants:

1	5	9
2	6	10
3	7	11
4	8	12

Name _____

SOILS and ROCKS

h) Soils and Rocks

1) Collect and identify soils found in different layers of a soil profile.

Collect and identify soils found in different layers of a soil profile:

2) Collect and identify five different types of rocks from your area.

Collect and identify five different types of rocks from your area:

1
2
3
4
5

ORGANIZATIONS and WEB SITES

(Whenever you go online, be sure you have your parent's permission first.)

American Birding Association

<http://www.americanbirding.org>

American Museum of natural History

<http://www.amnh.org>

The Audubon Society

<http://www.audubon.org>

Audubon magazine online:

<http://magazine.audubon.org>

Discover Magazine

<http://discovermagazine.com>

National Fish and Wildlife foundation

<http://www.nfwf.org>

National Geographic Society

<http://www.nationalgeographic.com>

National Park Service

<http://www.nps.gov>

U.S. Fish and Wildlife Service

<http://www.fws.gov>

NATURE WORKBOOK

Notes



APPLICATION FOR MERIT BADGE

Name: _____

Address: _____

City: _____

State: _____

Is a registered _____ Boy Scout,
 _____ Varsity Scout,
 _____ Venturer,

of _____ No. _____
Troop, team, crew, ship

District: _____

Council: _____

MERIT BADGE UNIVERISTY

Merit Badge: **Nature**

Counselor: _____

Address: Overland Trails Council

PO Box 1361

2808 O'Flannagan

Grand Island, NE 68802-1361

Phone: 308-382-3717

email: mbuotc@yahoo.com

and is qualified to begin working for this merit badge and has completed the following pre-requisite requirements:

SECTION A PRE-REQUISITE REQUIREMENTS

Requirement No. and letter	Date of Approval	Counselor Initial	Requirement No. and letter	Date of Approval	Counselor Initial
4a			4e		
4b			4f		
4c					
4d					

The applicant has personally appeared before me and demonstrated to my satisfaction that he has met all pre-requisites requirements for the above stated merit badge and is ready to attend his assigned MBU class.

Signature of Unit Leader _____ Date _____

SECTION B APPLICANTS RECORD

Requirement No. and letter	Date of Approval	Counselor Initial	Requirement No. and letter	Date of Approval	Counselor Initial
1					
2					
3					
4g					
4h					

The applicant has personally appeared before me and demonstrated to my satisfaction that he has completed all requirements in **SECTION B** above for the

Merit Badge: **Nature**

Name of Counselor: _____

Signature of Counselor _____ Date _____

SCOUT INSTRUCTIONS

- Complete your name, address, city, unit type & number, district, & council on the Application for Merit Badge.
- Your unit leader must sign the Application for Merit Badge before attending class.
- All other information is already printed on the Application for Merit Badge; please make sure all information is correct.
- The merit badge counselor is registered & approved for this merit badge and is on the MBU Counselor's List.
- Read the merit badge pamphlet.
- Attend the merit badge class.
- Always meet with your counselor along with a buddy (a Scout, friend, or parent)
- Have your merit badge worksheet with you when you attend class.
- **If the merit badge pre-requisites are not completed before class, you will not be able to complete the merit badge during this weekend event, you will have to follow up with your Unit's Advancement Chair when you return home**
- **PLEASE BE AWARE THAT SOME COUNSELORS WILL NOT ALLOW YOU TO ATTEND THEIR CLASS WITHOUT PRE-REQUISITES COMPLETED—CLASS CURRICULUM IS DEPENDENT ON PRE-REQUISITE WORK BEING COMPLETED!**

COUNSELOR INSTRUCTIONS

- Never meet alone with a Scout.
- Verify all information & merit badge name on Application for Merit Badge is correct.
- Sign your name on the line at the bottom of **"SECTION B APPLICANTS RECORD"**.