



# Nature

## Merit Badge Study Guide

• Organize thoughts to prepare • Take notes • Keep track of progress

Merit badge counselors may not require the use of this or any other workbook. Scouts must still demonstrate that have learned the material and can perform each required skill. If a requirement directs you to discuss, show, "tell, explain, demonstrate, identify, or anything similar, the requirement must be completed as written. No one may add to or remove anything from the official requirements listed in Scoutbook or on [scouting.org/skills/merit-badges](https://scouting.org/skills/merit-badges).

The requirements were revised in 2025 • This guide was updated in December 2025.

Scout's Name: \_\_\_\_\_ Unit: \_\_\_\_\_

Counselor's Name: \_\_\_\_\_ Phone No.: \_\_\_\_\_ Email: \_\_\_\_\_

Read the [merit badge pamphlet](#).

View helpful online video resources for each requirement at [scouting.org/merit-badges/nature](https://scouting.org/merit-badges/nature).

1. Name three ways in which plants are important to animals.

1.


2.


3.


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.

1.	
2.	
3.	

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.

Land food chain

1.	
2.	
3.	
4.	

Water food chain

1.	
2.	
3.	
4.	

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

a. **Birds**

1. In the field, 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. *(can use optional observation table at end).*

b. **Mammals**

1. In the field, identify three species of wild mammals.

1.	
2.	
3.	

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

c. **Reptiles or Amphibians**

1. Show that you can recognize the venomous snakes in your area.

2. In the field, 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.

d. **Insects or Spiders**

1. Collect, and identify either in the field or through photographs 10 species of insects or spiders. Photos may be taken with your own equipment or gathered from other sources.

1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
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.

**e. Fish**

- 1. Identify two species of fish native to your area.
 

1.	
2.	

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

1.	
2.	
3.	
4.	

**f. Mollusks and Crustaceans**

- 1. Identify five species of mollusks and crustaceans.
 

1.	
2.	
3.	
4.	
5.	

- 2. Collect, mount, and label six shells.
 

1.	
2.	
3.	
4.	
5.	
6.	

**g. Plants**

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

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

12.	
13.	
14.	
15.	

- 2. Do ONE of the following options:
- a. Collect and label the seeds of six plants OR the leaves of 12 plants.
- b. Photograph the seeds of six plants OR the leaves of 12 plants and create a catalog of your photos.

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

h. **Soils and Rocks**

- 1. Collect and identify three different types of soil that represent soils high in sand, clay and humus.

High in Sand	
High in Clay	
High in Humus	

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

1.	
2.	
3.	
4.	
5.	

- 5. Discuss the importance of the Leave No Trace Seven Principles and the Outdoor Code and how they relate to nature. Explain how you have followed the Leave No Trace Seven Principles and the Outdoor Code while in natural areas during field observation, specimen collection, and identification.


- 6. Do the following:
  - a. Explain what succession is to your counselor.


- b. Visit a natural area (forest, grassland, meadow, water feature) and explain what stage of succession (both plant and animal) the area is in.


Talk about what community/succession stages may have been there before and what community/succession stages may replace what you see now.


Discuss what disturbances or changes have taken place in the past to create this landscape and what changes may occur in the future to change the landscape further.


\*Photos may be those taken with your own equipment or gathered from other sources.

**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.*

**7. Careers. Do ONE of the following:**

- (a) Identify three career opportunities that would use skills and knowledge in nature.

1.	
2.	
3.	

Pick one and research the training, education, certification requirements, experience, and expenses associated with entering the field. Research the prospects for employment, starting salary, advancement opportunities, and career goals associated with this career. Discuss what you learned with your counselor and whether you might be interested in this career

Career: \_\_\_\_\_

Training	
Education	
Certification Requirements	
Experience	
Expenses associated with entering field	
Prospects for employment	
Starting salary	
Advancement opportunities	
Career goals associated with this career	

- Discuss what you learned with your counselor and whether you might be interested in this career.

Notes:	

- (b) Identify how you might use the skills and knowledge in Nature to pursue a personal hobby. Research the additional training required, expenses, and affiliation with organizations that would help you maximize the enjoyment and benefit you might gain from it.

Training	
Expenses	
Affiliation with Organizations	

- Discuss what you learned with your counselor and share what short-term and long-term goals you might have if you pursued this. \_\_\_\_\_

Work Roles	
Short-term goals	
Long-term goals	

**Requirement 4a(2) Listing of what birds used the birdhouse, feeding station, or birdbath you set out**

Starting Date:					Ending Date:			
Week	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	
1.								
2.								
3.								
4.								
5.								