



# Reptile and Amphibian Study

## Merit Badge Workbook



This workbook can help you but you still need to read the merit badge pamphlet.

This Workbook can help you organize your thoughts as you prepare to meet with your merit badge counselor.

You still must satisfy your counselor that you can demonstrate each skill and have learned the information.

You should use the work space provided for each requirement to keep track of which requirements have been completed, and to make notes for discussing the item with your counselor, not for providing full and complete answers.

If a requirement says that you must take an action using words such as "discuss", "show", "tell", "explain", "demonstrate", "identify", etc, that is what you must do.

**Merit Badge Counselors may not require the use of this or any similar workbooks.**

No one may add or subtract from the official requirements found in Boy Scout Requirements (Pub. 33216 – SKU 621535).

The requirements were last issued or revised in 2006 • This workbook was updated in October 2016.

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

Unit: \_\_\_\_\_

Counselor's Name: \_\_\_\_\_

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

<http://www.USScouts.Org> • <http://www.MeritBadge.Org>

Please submit errors, omissions, comments or suggestions about this **workbook** to: [Workbooks@USScouts.Org](mailto:Workbooks@USScouts.Org)  
Comments or suggestions for changes to the **requirements** for the **merit badge** should be sent to: [Merit.Badge@Scouting.Org](mailto:Merit.Badge@Scouting.Org)

1. Describe the identifying characteristics of six species of reptiles and four species of amphibians found in the United States. For any four of these, make sketches from your own observations or take photographs. Show markings, color patterns, or other characteristics that are important in the identification of each of the four species. Discuss the habits and habitats of all ten species.

### Reptiles

Species	
Identifying Characteristics	
Habits:	
Habitat:	

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Species	
Identifying Characteristics	
Habits:	
Habitat:	

Species	
Identifying Characteristics	
Habits:	
Habitat:	

Species	
Identifying Characteristics	
Habits:	
Habitat:	

Species	
Identifying Characteristics	
Habits:	
Habitat:	

Species	
Identifying Characteristics	
Habits:	
Habitat:	

**Amphibians**

Species	
Identifying Characteristics	
Habits:	
Habitat:	

Species	
Identifying Characteristics	
Habits:	
Habitat:	

Species	
Identifying Characteristics	
Habits:	
Habitat:	

Species	
Identifying Characteristics	
Habits:	
Habitat:	

For any four of these, make sketches from your own observations or take photographs. Show markings, color patterns, or other characteristics that are important in the identification of each of the four species.

1	2

3	4



3. Describe the main differences between:

Amphibians and reptiles.


Alligators and crocodiles.


Toads and frogs.


Salamanders and lizards.


Snakes and lizards.


4. Explain how reptiles and amphibians are an important component of the natural environment.


List four species that are officially protected by the federal government or state you live in, and tell why each is protected. List three species of reptiles and three species of amphibians found in your local area that are not protected. Discuss the food habits of all ten species.

**Protected Species**

1. Species	
Why protected?	
Food habits:	

2. Species	
Why protected?	
Food habits:	

3. Species	
Why protected?	
Food habits:	



4. Species	
Why protected?	
Food habits:	

**Unprotected Reptiles**

1. Species	
Food habits:	

2. Species	
Food habits:	

3. Species	
Food habits:	

**Unprotected Amphibians**

1. Species	
Food habits:	

2. Species

Food habits:


3. Species

Food habits:


5. Describe how reptiles and amphibians reproduce.

Reptiles


Amphibians


6. From observation, describe how snakes move forward.


Describe the functions of the muscles, ribs, and belly plates.


7. Describe in detail six venomous snakes and the one venomous lizard found in the United States. Describe their habits and geographic range.

Venomous Snake 1

Description:

Habits:

Range:

Venomous Snake 2

Description:

Habits:

Range:

Venomous Snake 3

Description:

Habits:

Range:

Venomous Snake 4

Description:

Habits:

Range:

Venomous Snake 5

Description:

Habits:

Range:

Venomous Snake 6

Description:

Habits:

Range:

Venomous Lizard	
Description:	
Habits:	
Range:	

Tell what you should do in case of a bite by a venomous species.


8. Do ONE of the following:

- a. Maintain one or more reptiles or amphibians for at least a month. Record the food accepted, eating methods, changes in coloration, shedding of skins, and general habits; or keep the eggs of a reptile from the time of laying until hatching; or keep the eggs of an amphibian from the time of laying until their transformation into tadpoles (frogs) or larvae (salamanders).

Reptile(s) or Amphibian(s) Maintained:

Dates:

Day	Food Accepted	Eating Methods	Color Changes	Skin Shedding	General Habits
1					
2					
3					
4					
5					
6					
7					
8					
9					

10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					
27					
28					
29					
30					
31					

- b. Choose a reptile or amphibian that you can observe at a local zoo, aquarium, nature center, or other such exhibit (such as your classroom or school). Study the specimen weekly for a period of three months. At each visit, sketch the specimen in its captive habitat and note any changes in its coloration, shedding of skins, and general habits and behavior. Find out, either from information you locate on your own or by talking to the caretaker, what this species eats and what are its native habitat and home range, preferred climate, average life expectancy, and natural predators. Also identify any human caused threats to its population and any laws that protect the species and its habitat. After the observation period, share what you have learned with your counselor.

*(Note: Make your sketches on separate pages and attach them to the workbook.)*


9. Do TWO of the following:

- a. Identify at night three kinds of toads or frogs by their voices. Imitate the song of each for your counselor. Stalk each with a flashlight and discover how each sings and from where.

<input type="checkbox"/> 1.	
<input type="checkbox"/> 2.	
<input type="checkbox"/> 3.	

- b. Identify by sight eight species of reptiles or amphibians.

<input type="checkbox"/> 1.	
<input type="checkbox"/> 2.	
<input type="checkbox"/> 3.	
<input type="checkbox"/> 4.	
<input type="checkbox"/> 5.	
<input type="checkbox"/> 6.	
<input type="checkbox"/> 7.	
<input type="checkbox"/> 8.	

- c. Using visual aids, give a brief talk to a small group on three different reptiles and amphibians.


10. Give five superstitions about reptiles and amphibians and a correct explanation for each.

	Superstition	Explanation
1.		
2.		
3.		
4.		
5.		

Give seven examples of unusual behavior or other true facts about reptiles and amphibians.

1	
2	
3	
4	
5	
6	
7	

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*NOTE: Scouts must not use venomous reptiles in fulfilling requirement 8a. Species listed by federal or state law as endangered, protected, or threatened must not be used as live specimens in completing requirement 8a unless official permission has been given. In most cases, all specimens should be returned to the wild at the location of capture after the requirement has 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.*

**Requirement resources can be found here:**

[http://www.meritbadge.org/wiki/index.php/Reptile\\_and\\_Amphibian\\_Study#Requirement\\_resources](http://www.meritbadge.org/wiki/index.php/Reptile_and_Amphibian_Study#Requirement_resources)



## **Important excerpts from the Guide To Advancement - 2015, No. 33088 (SKU-620573)**

### **[1.0.0.0] — Introduction**

The current edition of the *Guide to Advancement* is the official source for administering advancement in all Boy Scouts of America programs: Cub Scouting, Boy Scouting, Varsity Scouting, Venturing, and Sea Scouts. It replaces any previous BSA advancement manuals and previous editions of the *Guide to Advancement*.

### **[Page 2, and 5.0.1.4] — Policy on Unauthorized Changes to Advancement Program**

**No council, committee, district, unit, or individual has the authority to add to, or subtract from, advancement requirements.** There are limited exceptions relating only to youth members with special needs. For details see section 10, "Advancement for Members With Special Needs".

### **[Page 2] — The "Guide to Safe Scouting" Applies**

Policies and procedures outlined in the *Guide to Safe Scouting*, No. 34416, apply to all BSA activities, including those related to advancement and Eagle Scout service projects.

### **[7.0.3.1] — The Buddy System and Certifying Completion**

A youth member must not meet one-on-one with an adult. Sessions with counselors must take place where others can view the interaction, or the Scout must have a buddy: a friend, parent, guardian, brother, sister, or other relative—or better yet, another Scout working on the same badge—along with him attending the session. If merit badge counseling or instruction includes any Web-based interaction, it must be conducted in accordance with the BSA Social Media Guidelines (<http://www.scouting.org/Marketing/Resources/SocialMedia>). For example, always copy one or more authorized adults on email messages between counselors and Scouts.

When the Scout meets with the counselor, he should bring any required projects. If these cannot be transported, he should present evidence, such as photographs or adult verification. His unit leader, for example, might state that a satisfactory bridge or tower has been built for the Pioneering merit badge, or that meals were prepared for Cooking. If there are questions that requirements were met, a counselor may confirm with adults involved. Once satisfied, the counselor signs the blue card using the date upon which the Scout completed the requirements, or in the case of partials, initials the individual requirements passed.

Note that from time to time, it may be appropriate for a requirement that has been met for one badge to also count for another. See "Fulfilling More Than One Requirement With a Single Activity," 4.2.3.6.

### **[7.0.3.2] — Group Instruction**

It is acceptable—and sometimes desirable—for merit badges to be taught in group settings. This often occurs at camp and merit badge midways, fairs, clinics, or similar events. Interactive group discussions can support learning. The method can also be attractive to "guest experts" assisting registered and approved counselors. Slide shows, skits, demonstrations, panels, and various other techniques can also be employed, but as any teacher can attest, not everyone will learn all the material.

There must be attention to each individual's projects and his fulfillment of *all* requirements. We must know that every Scout—actually and *personally*—completed them. If, for example, a requirement uses words like "show," "demonstrate," or "discuss," then every Scout must do that. It is unacceptable to award badges on the basis of sitting in classrooms *watching* demonstrations, or remaining silent during discussions.

It is sometimes reported that Scouts who have received merit badges through group instructional settings have not fulfilled all the requirements. To offer a quality merit badge program, council and district advancement committees should ensure the following are in place for all group instructional events.

- A culture is established for merit badge group instructional events that partial completions are acceptable expected results.
- A guide or information sheet is distributed in advance of events that promotes the acceptability of partials, explains how merit badges can be finished after events, lists merit badge prerequisites, and provides other helpful information that will establish realistic expectations for the number of merit badges that can be earned at an event.
- Merit badge counselors are known to be registered and approved.
- Any guest experts or guest speakers, or others assisting who are not registered and approved as merit badge counselors, do not accept the responsibilities of, or behave as, merit badge counselors, either at a group instructional event or at any other time. Their service is temporary, not ongoing.
- Counselors agree to sign off only requirements that Scouts have actually and personally completed.
- Counselors agree not to assume prerequisites have been completed without some level of evidence that the work has been done. Pictures and letters from other merit badge counselors or unit leaders are the best form of prerequisite documentation when the actual work done cannot be brought to the camp or site of the merit badge event.
- There is a mechanism for unit leaders or others to report concerns to a council advancement committee on summer camp merit badge programs, group instructional events, and any other merit badge counseling issues—especially in instances where it is believed BSA procedures are not followed. See "Reporting Merit Badge Counseling Concerns," 11.1.0.0.
- There must be attention to each individual's projects and his fulfillment of all requirements. We must know that every Scout—actually and personally—completed them.

It is permissible for guest speakers, guest experts, or others who are not merit badge counselors to assist in the counseling process. Those providing such assistance must be under the direction of a registered and approved counselor who is readily available onsite, and provides personal supervision to assure all applicable BSA policies and procedures—including those related to BSA Youth Protection—are in place and followed.

### **[7.0.3.3] — Partial Completions**

A Scout need not pass all the requirements of one merit badge with the same counselor. It may be that due to timing or location issues, etc., he must meet with a different counselor to finish the badge. The Application for Merit Badge has a place to record what has been finished—a "partial." In the center section on the reverse of the blue card, the counselor initials for each requirement passed. In the case of a partial completion, the counselor does not retain his or her portion of the card. A subsequent counselor may choose not to accept partial work, but this should be rare. A Scout, if he believes he is being treated unfairly, may work with his unit leader to find another counselor. An example for the use of a signed partial would be to take it to camp as proof of prerequisites. Partial completions have no expiration except the Scout's 18th birthday. Units, districts, or councils shall not establish other expiration dates for partial merit badges.

### **[7.0.4.8] — Unofficial Worksheets and Learning Aids**

Worksheets and other materials that may be of assistance in earning merit badges are available from a variety of places including unofficial sources on the Internet and even troop libraries. Use of these aids is permissible as long as the materials can be correlated with the current requirements that Scouts must fulfill. Completing "worksheets" may suffice where a requirement calls for something in writing, but this would not work for a requirement where the Scout must discuss, tell, show, or demonstrate, etc. Note that Scouts shall not be required to use these learning aids in order to complete a merit badge.