



# Geocaching

## Merit Badge Workbook

**Special Notes:** *The BSA is working on the merit badge pamphlet. No picture of the merit badge is available at this time. Scouts can complete requirements, but can't earn the badge until BSA officially adds the badge to the advancement system. Scouts can then get credit for their previous work but the date earned will be when it can be entered.*

This workbook can help you but you still need to read the merit badge pamphlet (book). No one can add or subtract from the Boy Scout Requirements #33216. Each Scout must do each requirement. Merit Badge Workbooks and more: [Online Resources](#). Send comments to the workbook developer: [craig@craiglincoln.com](mailto:craig@craiglincoln.com). Requirements revised: 04/9/10, Workbook updated: 07/10.

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

Counselor's Name: \_\_\_\_\_ Counselor's Ph #: \_\_\_\_\_

1. Do the following:

- a. Explain to your counselor the most likely hazards you may encounter while participating in geocaching activities and what you should do to anticipate, help prevent, mitigate, and respond to these hazards.

Hazard: \_\_\_\_\_

Anticipate, & Prevent: \_\_\_\_\_

Mitigate & Respond: \_\_\_\_\_

Hazard: \_\_\_\_\_

Anticipate & Prevent: \_\_\_\_\_

Mitigate & Respond: \_\_\_\_\_

Hazard: \_\_\_\_\_

Anticipate & Prevent: \_\_\_\_\_

Mitigate & Respond: \_\_\_\_\_

Hazard: \_\_\_\_\_

Anticipate & Prevent: \_\_\_\_\_

Mitigate & Respond: \_\_\_\_\_

Hazard: \_\_\_\_\_

Anticipate & Prevent: \_\_\_\_\_

Mitigate & Respond: \_\_\_\_\_

- b. Discuss first aid and prevention for the types of injuries or illnesses that could occur while participating in geocaching activities, including [cuts](#), [scrapes](#), \_\_\_\_\_

[snakebite](#), \_\_\_\_\_

\_\_\_\_\_

[insect stings](#), \_\_\_\_\_  
\_\_\_\_\_

[tick bites](#), \_\_\_\_\_  
\_\_\_\_\_

exposure to [poisonous plants](#), \_\_\_\_\_  
\_\_\_\_\_

heat and cold reactions ([sunburn](#), \_\_\_\_\_  
\_\_\_\_\_

[heatstroke](#), \_\_\_\_\_  
\_\_\_\_\_

[heat exhaustion](#), \_\_\_\_\_  
\_\_\_\_\_

[hypothermia](#)), \_\_\_\_\_  
\_\_\_\_\_

and [dehydration](#). \_\_\_\_\_  
\_\_\_\_\_

c. Discuss how to properly plan an activity that uses GPS, including using the [buddy system](#), \_\_\_\_\_  
\_\_\_\_\_

sharing your plan with others, \_\_\_\_\_  
\_\_\_\_\_

and considering the weather, \_\_\_\_\_  
\_\_\_\_\_

route, \_\_\_\_\_  
\_\_\_\_\_

and proper attire. \_\_\_\_\_  
\_\_\_\_\_

2. Discuss the following with your counselor:

a. Why you should never bury a cache. \_\_\_\_\_  
\_\_\_\_\_

b. How to use proper geocaching etiquette when hiding or seeking a cache, \_\_\_\_\_  
\_\_\_\_\_

and how to properly hide, \_\_\_\_\_  
\_\_\_\_\_

post, \_\_\_\_\_  
\_\_\_\_\_

maintain, \_\_\_\_\_  
\_\_\_\_\_

and dismantle a geocache. \_\_\_\_\_  
\_\_\_\_\_

c. The principles of [Leave No Trace](#) as they apply to geocaching \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Explain the following terms used in geocaching: waypoint, \_\_\_\_\_

log, \_\_\_\_\_  
\_\_\_\_\_

cache, \_\_\_\_\_  
\_\_\_\_\_

accuracy, \_\_\_\_\_  
\_\_\_\_\_

difficulty and terrain ratings, \_\_\_\_\_  
\_\_\_\_\_

attributes, \_\_\_\_\_  
\_\_\_\_\_

trackable. \_\_\_\_\_  
\_\_\_\_\_

Choose five additional terms to explain to your counselor.

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_

3. \_\_\_\_\_  
\_\_\_\_\_

4. \_\_\_\_\_  
\_\_\_\_\_

5. \_\_\_\_\_  
\_\_\_\_\_

4. Explain how the Global Positioning System (GPS) works. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Then, using [Scouting's Teaching EDGE](#), demonstrate the use of a GPS unit to your counselor. Include marking and editing a waypoint, \_\_\_\_\_  
\_\_\_\_\_  
changing field functions, \_\_\_\_\_  
\_\_\_\_\_  
and changing the coordinate system in the unit. \_\_\_\_\_  
\_\_\_\_\_

5. Do the following:

a. Show you know how to use a [map and compass](#) and explain why this is important for geocaching. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b. Explain the similarities and differences between GPS navigation \_\_\_\_\_  
\_\_\_\_\_  
and standard map reading skills and describe the benefits of each. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

c. Explain the UTM (Universal Transverse Mercator) system \_\_\_\_\_  
\_\_\_\_\_  
and how it differs from the latitude/longitude system used for public geocaches. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

d. Show how to plot a UTM waypoint on a map. Compare the accuracy to that found with a GPS unit. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Describe the four steps to finding your first cache to your counselor.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

3. \_\_\_\_\_

\_\_\_\_\_

4. \_\_\_\_\_

\_\_\_\_\_

Then mark and edit a waypoint. \_\_\_\_\_

\_\_\_\_\_

7. With your parent's permission\*, go to [www.geocaching.com](http://www.geocaching.com). Type in your zip code to locate public geocaches in your area. Share the posted information about three of those geocaches with your counselor.

1. \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

Then, pick one of the three and find the cache. \_\_\_\_\_

\_\_\_\_\_

\*To fulfill this requirement, you will need to set up a free user account with [www.geocaching.com](http://www.geocaching.com). Ask your parent for permission and help before you do so.

8. Do **ONE** of the following:

a. If a Cache to Eagle® series exists in your council, visit at least three of the 12 locations in the series. Describe the projects that each cache you visit highlights,

1. \_\_\_\_\_

Project \_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

Project \_\_\_\_\_  
\_\_\_\_\_

3. \_\_\_\_\_

Project \_\_\_\_\_  
\_\_\_\_\_

and explain how the Cache to Eagle® program helps share our Scouting service with the public. \_\_\_\_\_

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

-OR-  b. Create a Scouting-related Travel Bug® that promotes one of the values of Scouting. \_\_\_\_\_

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

"Release" your Travel Bug into a public geocache and, with your parent's permission, monitor its progress at [www.geocaching.com](http://www.geocaching.com) for 30 days. Keep a log, and share this with your counselor at the end of the 30-day period.

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

-OR-  c. Set up and hide a public geocache, following the guidelines in the Geocaching merit badge pamphlet. Before doing so, share with your counselor a six-month maintenance plan for the geocache where you are personally responsible for the first three months. \_\_\_\_\_

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

After setting up the geocache, with your parent's permission, follow the logs online for 30 days and share them with your counselor. \_\_\_\_\_

-OR-  d. Explain what Cache In Trash Out (CITO) means, \_\_\_\_\_  
\_\_\_\_\_

and describe how you have practiced CITO at public geocaches or at a CITO event. \_\_\_\_\_  
\_\_\_\_\_

Then, either create CITO containers to leave at public caches, or host a CITO event for your unit or for the public. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

9. Plan a geohunt for a youth group such as your troop or a neighboring pack, at school, or your place of worship. \_\_\_\_\_

Choose a theme, \_\_\_\_\_  
set up a course with at least four waypoints, \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

teach the players how to use a GPS unit, and play the game. \_\_\_\_\_

Tell your counselor about your experience, and share the materials you used and developed for this event.

**Online Resources** (Use any Internet resource with caution and only with your parent's or guardian's permission.)

**Boy Scouts of America:** ► [scouting.org](http://scouting.org) ► [Guide to Safe Scouting](#) ► [Age-Appropriate Guidelines](#) ► [Safe Swim Defense](#)  
► [Scout](#) ► [Tenderfoot](#) ► [Second Class](#) ► [First Class](#) ► [Rank Videos](#) ► [Safety Afloat](#)

**Merit Badge Books:** [www.scoutstuff.org](http://www.scoutstuff.org) *Please don't post workbooks on your site. Please instead post links to these:*  
MeritBadge.org: <http://merithub.org/wiki/index.php/MBW> -or- usscouts.org: <http://www.usscouts.org/mb/worksheets/list.asp>

**Requirement Resources**

These resources and more are at: <http://merithub.org/wiki/index.php/Geocaching>

**GPS Introduction:**

- Simple pdf instructions: [http://www.geocaching.com/articles/Brochures/EN/EN\\_Geocaching\\_BROCHURE\\_online\\_color.pdf](http://www.geocaching.com/articles/Brochures/EN/EN_Geocaching_BROCHURE_online_color.pdf)
- Geocaching.com video: What Is Geocaching? <http://www.youtube.com/watch?v=-4VFeYZTTYs>
- Frequently Asked Questions: <http://www.geocaching.com/faq/>

1.a. Geocaching hazards

1.b. [cuts](#), [scrapes](#), [snakebite](#), [insect stings](#), [tick bites](#), exposure to [poisonous plants](#), heat and cold reactions ([sunburn](#), [heatstroke](#), [heat exhaustion](#), [hypothermia](#)), and [dehydration](#).

1.c. [Buddy system](#)

2.a. Geocaching Etiquette: Never bury a cache: <http://www.geocaching-101.com/2010/03/21/the-basics/>

- Cache Locations - never bury: <http://dnr.wi.gov/org/land/parks/other/geocache.html>
- Never bury - respect the environment [Leave No Trace](#)

- Hiding a Geocache: <http://adventure.howstuffworks.com/outdoor-activities/hiking/geocaching5.htm>
- 2.b. Geocaching etiquette: <http://www.scouting.org/filestore/pdf/gh3.pdf>
- Hiding a Geocache: <http://adventure.howstuffworks.com/outdoor-activities/hiking/geocaching5.htm>
- 2.c. [Leave No Trace](#)
3. Glossary of Terms: <http://www.geocaching.com/about/glossary.aspx>
- Waypoint: <http://www.geocaching.com/about/glossary.aspx#Waypoint>
  - Cache: <http://www.geocaching.com/about/glossary.aspx#Cache>
  - Attributes Icons: <http://www.geocaching.com/about/icons.aspx>
- Examples of additional terms are included above such as Muggle, ROT13 Code, etc.
- Benchmarks: <http://www.geocaching.com/mark/default.aspx>
  - Datum: <http://www.geocaching.com/about/glossary.aspx#datum>
4. How GPS Receivers work: <http://electronics.howstuffworks.com/gps.htm>
- Global Positioning System: <http://en.wikipedia.org/wiki/GPS> - <http://www.navcen.uscg.gov/?pageName=GPS>
  - [Scouting's Teaching EDGE](#)
  - Garmin GPS Academy Videos: <http://www8.garmin.com/gpsacademy/>
- 5.a. [Map and compass](#)
- 5.b. See links above: [Map and compass](#) - [GPS](#)
- 5.c. Universal Transverse Mercator: [http://en.wikipedia.org/wiki/Universal\\_Transverse\\_Mercator](http://en.wikipedia.org/wiki/Universal_Transverse_Mercator)
- Latitude/longitude system: [http://en.wikipedia.org/wiki/Geographic\\_coordinate\\_system](http://en.wikipedia.org/wiki/Geographic_coordinate_system)
- 5.d. Plot a UTM: [http://en.wikipedia.org/wiki/Universal\\_Transverse\\_Mercator#Locating\\_a\\_position\\_using\\_UTM\\_coordinates](http://en.wikipedia.org/wiki/Universal_Transverse_Mercator#Locating_a_position_using_UTM_coordinates)
6. Four steps to finding your first cache: <http://www.geocaching.com/about/finding.aspx>
- How to Go Geocaching: <http://www.wikihow.com/Go-Geocaching>
  - Waypoint: <http://www.geocaching.com/about/glossary.aspx#Waypoint>
  - Types of Geocaches: [http://www.geocaching.com/about/cache\\_types.aspx](http://www.geocaching.com/about/cache_types.aspx)
  - Video: What does a Geocache Look Like: <http://www.youtube.com/watch?v=KDSBXSoFsck>
  - Video: Introduction to Geocaching: <http://www.youtube.com/watch?v=wcFvoU7b92Q>
7. [www.Geocaching.com](http://www.Geocaching.com)
- 8.a. Cache to Eagle: [http://ww2.scouting.org/100years/100years/sitefiles/1000/Celebrating100Years/Cache\\_to\\_Eagle.pdf](http://ww2.scouting.org/100years/100years/sitefiles/1000/Celebrating100Years/Cache_to_Eagle.pdf)
- Geoscouting Cache to Eagle: <http://www.geoscouting.com/cache2eagle.html>
  - Guidelines: <http://www.geoscouting.com/pdfs/c2eguidelines.pdf>
  - Patch: <http://www.geoscouting.com/contact.html>
- 8.b. Travel Bug: <http://www.geocaching.com/track/faq.aspx> - [http://en.wikipedia.org/wiki/Travel\\_Bug](http://en.wikipedia.org/wiki/Travel_Bug)
- 8.c. Hiding Your First Geocache: <http://www.geocaching.com/about/hiding.aspx>
- Cache Guidelines: <http://www.geocaching.com/about/guidelines.aspx#TOC>
  - Cache Maintenance: <http://www.geocaching.com/about/guidelines.aspx#maint>
- 8.d. Cache In Trash Out:  
[http://ww2.scouting.org/100years/100years/sitefiles/1000/YourSource/PlanningTools/Geocaching/CITO\\_Public.pdf](http://ww2.scouting.org/100years/100years/sitefiles/1000/YourSource/PlanningTools/Geocaching/CITO_Public.pdf) -  
<http://www.geocaching.com/cito/default.aspx> - [http://en.wikipedia.org/wiki/Cache\\_In\\_Trash\\_Out](http://en.wikipedia.org/wiki/Cache_In_Trash_Out)
9. Sample Geohunt (Geocaching scavenger hunt) with multiple waypoints: <http://www.fws.gov/merrittisland/GeoHunt.html>

## **General Resources**

### [Geocaching.com](http://www.Geocaching.com)

Original requirements published by Scouting Magazine 4/9/10: [http://scoutingmag.typepad.com/files/geocaching\\_mb.pdf](http://scoutingmag.typepad.com/files/geocaching_mb.pdf)

Blog Announcement: <http://blog.scoutingmagazine.org/2010/04/official-geocaching-merit-badge-requirements-released.html>

Geocaching to Promote Scouting:

<http://www.scouting.org/scoutsourcesite/core/content/scouting/training/adult/supplemental/geocachingtopromotescouting.aspx>



[Orienteering Games for the Computer](#)

[Schoolyard Compass Game](#)

[Scout Skills Orienteering Badge UK](#)

[U.S. Geological Survey](#)

[U.S. Orienteering Federation](#)

[AE Orienteering](#)

[The Compass Store](#)

[Orienteering Unlimited](#)

[Orienteer Website](#)