

***“Life is either  
a daring  
adventure  
or nothing  
at all.”***

—Helen Keller,  
author and activist

Developed in partnership with Groundspeak, Inc.

# Geocacher

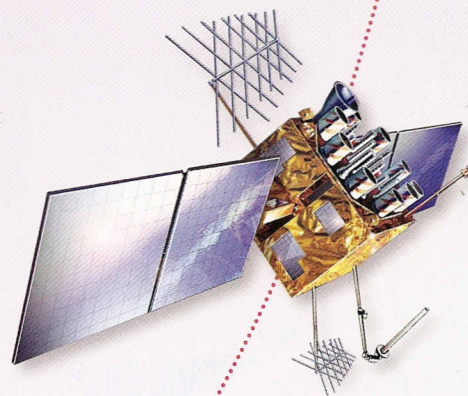
**G**eocaching is your chance to be part global explorer, part detective. You'll search for treasure chests, known as “geocaches,” using a device called a GPS receiver to find each chest's secret hiding place. Get ready for a thrilling adventure!

## *Steps*

1. Prepare for your adventure
2. Learn to use a GPS receiver
3. Make a trade item
4. Go on a geocaching adventure
5. Take part in a bug's travels!

## *Purpose*

When I've earned this badge, I'll know how to have a geocaching adventure.







- What should I expect on my adventure?
- What do I need to carry with me?
- What are three basic rules I need to follow?
- What will I find in a cache?
- How will I stay safe on my adventure?

**“GPS” stands for Global Positioning System.**

**You need a GPS receiver to do this badge. Many geocachers use a smartphone with a built-in GPS receiver. It shouldn't be hard to find or borrow a receiver if you don't have one!**

## STEP 1 Prepare for your adventure

**The goal of a geocaching adventure is to find a geocache, or hidden treasure box. You'll use GPS "clues" to uncover treasures that most people don't know exist. There are over one million hidden geocaches all over the world! Before you get started, get expert information. See the sidebar for good questions to answer.**

### CHOICES – DO ONE:

- ☐ **With an adult, visit an official geocaching site.** It might be [www.geocaching.com](http://www.geocaching.com) or [www.navicache.com](http://www.navicache.com).

**FOR MORE FUN:** Get the geocaching slang! Find out what these different terms mean: FTF, waypoint, CITO, TFTC, terrain rating.

**OR** 

- ☐ **Invite a geocacher to talk to you about their adventures.**  
Perhaps you can ask an older Girl Scout?

**FOR MORE FUN:** Brainstorm new activities that would use a GPS receiver. Make a cool ad that describes your new sport and encourages others to join up.

**OR** 

- ☐ **Attend a geocaching event.** Talk to the adventurers themselves. You might ask, What's the coolest thing you've ever found in a geocache? How long have you been geocaching?



## STEP 2 Learn to use a GPS receiver

To find your way to a hidden geocache, you need to zero in on its “coordinates.” Coordinates are measurements called longitude and latitude. Longitude is where something is on earth east to west. Latitude is where it is between the North Pole and South Pole. Where these two meet gives an exact location. Practice!

### CHOICES – DO ONE:

- ☐ **Find the GPS coordinates of three things.** They could be a neighborhood stop sign, a mark on the sidewalk, and your favorite tree.

OR 

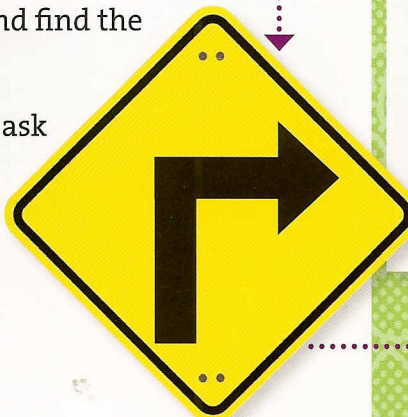
- ☐ **Hide an item for a friend to find.** Give them the GPS coordinates of the item, and help them if they get stuck. Then have them hide an item for you to find.

OR 

- ☐ **Go on a photo hunt.** Ask an adult to take photos of three things along a safe route—perhaps a mailbox, a flower, and a street sign. The adult should give you the photos in the order they appear along the route plus the coordinates for each. With your Girl Scout friends, go out and find the things in the photos!



**FOR MORE FUN:** Make it a challenge—ask for two sets of photos along the same route, and see who can find all her targets first.



latitude: north / south

longitude: east / west

intersection: where points meet

### Try This on Your GPS Receiver

As you're learning to use your GPS receiver, learn how to do these useful things. Ask for an expert's help!

- Mark where you are
- View the coordinates of a location that's already entered
- View a set of coordinates on the map







- **Micro:** a tiny container, usually weighing less than three ounces and typically containing only a logbook or a log sheet

- **Small:** a sandwich-size plastic container that holds trade items as well as a logbook
- **Regular:** a plastic container or ammo can about the size of a shoe box
- **Large:** a five-gallon-size bucket or even larger container

### 3 Make a trade item

**Before you start out on an adventure, you need to carry an item that you'll leave at the geocache. This item has to be small enough to fit inside the box and should not be expensive. Some common items are sports trading cards and small toys.**

### CHOICES – DO ONE:

- ☐ **Make something that represents Girl Scouts.** Is there a symbol of something that your group did together? It might be a patch or a SWAP. Or you could create an object that inspires others to Take Action, like a list of recycling tips.


**OR** 

**Make a piece of jewelry.** Why not make a

- ☐ prize for someone to wear? Knot a friendship bracelet or work with charms to make a bangle. (Need more inspiration? Try the Jewelry badge!)

**OR** 

## Make something that

-  **represents you.** You could make a drawing, a collage of magazine pictures, or a painted seashell.

To be safe, don't leave personal photos of any kind.



## Safety TIP

**Remember, when making a trade item, never include personal information (like your name, phone number, or address).**



## STEP 4 Go on a geocaching adventure

Now it's time to get out there and find a geocache! With an adult, log on to a geocaching website and create a screen name for yourself or your group. Find out how many geocaches are within a 25-mile radius of where you are. Then pick a choice to help you decide which geocache to go after—and how to plan your Adventure Day!

### CHOICES – DO ONE:

- ☐ **Make it a hiking adventure.** Get out of your community and into the wild. Track down a cache that is a little bit off the beaten trail. Maybe you can explore a new place you have always wanted to visit, and pack a picnic!

OR

- ☐ **Take a multi-cache adventure.** They can be a little more work, but twice the fun. (See the sidebar to find out what a multi-cache is.) Could you bring a special snack to munch when you find each geocache?

OR

- ☐ **Go on a themed adventure.** Some geocaches are themed, from the clues to the container to the prizes inside. See if you can find a geocache that has a theme—it may be about a movie or an animal.

**FOR MORE FUN:** Wear costumes on your search that go with the theme. (Make sure they're practical if you'll be romping through the woods!)

### More to Explore

**Have a "Cache In, Trash Out" hunt.** "Cache In, Trash Out" (CITO) is a hunt where geocachers collect litter along the trails and properly dispose of it after finding a geocache. See if there's a CITO event in your community to join, or have one with your Junior friends.



## Common Kinds of Geocaches



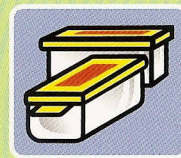
### Traditional Cache:

A traditional cache is

usually a small waterproof container with a logbook inside. The coordinates listed on a traditional cache's page provide its exact location.

### Multi-Cache:

A multi-cache involves two or more



locations. The final location is a physical container. Most multi-caches have a hint to find the second geocache, and the second cache has hints to the third, and so on.



### Mystery or Puzzle Cache:

These geocaches might have

puzzles you will first need to solve to figure out the coordinates.

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## How GPS Works

Over 30 GPS satellites in orbit around Earth transmit their locations at regular intervals. A GPS receiver must calculate its distance from at least four of those satellites to determine a position accurately. The satellites' signals travel at the speed of light!

# GEOCACHING

## Tips

- 1 Choose a geocache with a low difficulty rating. Even a one-star cache can be quite hard to find!
- 2 Geocaches disappear sometimes, so read the recent logs on the cache details page to make sure that someone has found the cache recently.
- 3 Read the description (and optional hint) on the cache-details page and check to see what size the cache is.
- 4 GPS coordinates aren't always exact, so once you are within about 25 feet of a location, put the GPS receiver away and rely on your eyes! Look for something that doesn't seem quite "right"—perhaps an unusual pile of rocks or sticks. Think about where you might hide a cache!
- 5 The general rule of thumb is, "If you take an item, leave an item, and write in the logbook."









**Now that I've earned this badge, I can give service by:**

- , I can give service by:
- a GPS receiver
- ger girls
- 
- to:

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