



## Junior Geocasher

Geocaching 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.

### Sidebar: Quote

*"Life is either a daring adventure or nothing at all."* —Helen Keller, author and activist

### Sidebar: Tips Before Takeoff

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?



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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?

### Sidebar: What to Find Out about Geocaching

Get ready to learn how to be a modern-day treasure seeker. Once you can truly imagine what's hidden just under your nose, the world will never look the same!

- 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.

### STEP 2: Learn to use a GPS receiver

To find your way to a hidden geocache, you need to zero in on its "geographic coordinates." The units of measurement for these coordinates are degrees of latitude and longitude. These lines form an imaginary grid over the Earth's surface and an exact location can be identified by where these lines meet in the grid.

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



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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.

### Sidebar:

latitude: east/west, longitude: north/south

N x S intersection: where points meet

### Sidebar: 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

### STEP 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.

### Sidebar: What Do Caches Look Like?

Not all caches are large enough to contain items for trading. Some are only large enough to contain a log sheet. Here are the different sizes:

- 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 about the size of a shoe box
- Large: a five-gallon-size bucket or even larger container

### Sidebar: 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!)

### Sidebar: 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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More to Explore

**Sidebar: 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.

**Sidebar: 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!

**Sidebar: Tips**

Choose a geocache with a low difficulty rating. Even a one-star cache can be quite hard to find! Geocaches disappear sometimes, so read the recent logs on the cache details page to make sure that someone has found the cache recently. Read the description (and optional hint) on the cache-details page and check to see what size the cache is. 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!

The general rule of thumb is, "If you take an item, leave an item, and write in the logbook."

**STEP 5: Take part in a bug's travels!**



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A Travel Bug® travels from cache to cache— sometimes all across the world. Each bug wears a “tag” with a special number. When you enter the number on [geocaching.com](http://geocaching.com), you can see everywhere the bug has gone. (Whoever hides the bug decides where they want it to travel, called a goal. When a geocacher finds the bug in a cache, they move the bug to help it reach the goal.)

CHOICES – DO ONE:

**Make a bug go around the world.** Get a Travel Bug® (see sidebar for instructions), and make its goal international travel. You could write “Please take me to the Great Wall of China” or “This bug would like to take a tour of London.” For More FUN: Attach your Travel Bug® to a small stuffed animal or doll. What about a doll you make yourself?

OR

**Have your bug follow the girls!** Hide a bug with the goal to travel to Girl Scout or Girl Guide places around the country or the world. Your instructions could be “I would like to make it to Our Chalet in Switzerland” or “I would like to be found by Girl Scouts in Georgia.”

OR

**Track a bug’s travels.** Go to [geocaching.com](http://geocaching.com) and find a Travel Bug® that’s been to at least four places. On an existing map (or a map you draw), chart the bug’s voyage. What can you find out about each area it’s visited? **For More FUN:** See if you can find a geocache with a Travel Bug® in it. Track your find online, then help the bug reach its goal!

### Sidebar: How to Start a Bug on Its Travels

Ask an adult to help you drop off your Travel Bug ®.

- Get an inexpensive bug from [shop.groundspeak.com](http://shop.groundspeak.com)
  - Log on to [www.geocaching.com/track/howto.aspx](http://www.geocaching.com/track/howto.aspx) and follow the instructions for “Dropping off a Travel Bug ®”
  - Answers to common questions can be found here: [www.geocaching.com/track/faq.aspx](http://www.geocaching.com/track/faq.aspx)
- Copyright The Travel Bug® Used with Permission.

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

- Teaching my friends how to use a GPS receiver
- Creating a photo hunt for younger girls
- Starting a geocaching club at my school



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