



With the help of a GPS unit and topographical map, Amanda, Raechel, and Sydney of Troop 280 find a geocache in the woods outside of Boyne City, Michigan.

## Hi-Tech Hide & Seek

### Breakin' It Down

"Hide and Seek" is one of the first games we play as kids. Growing up doesn't mean we have to stop playing—it's just a matter of stepping up the game. The "Hi-Tech Hide & Seek" Interest Project does just that with the help of skill-based activities like letterboxing and geocaching!

#### *Quick Definitions:*

**What is letterboxing?** Someone hides a waterproof box containing at least a logbook and a carved rubber stamp. The hider usually writes directions to the box (called "clues" or "the map"). The hunter carries at least a pencil, her personal rubber stamp, an inkpad, and her personal logbook. When the hunter successfully deciphers the clue and finds the box, she stamps the logbook in the box with her personal stamp, and stamps her personal logbook with the box's stamp. The box's logbook keeps a record of all its visitors, and the hunters keep a record of all the boxes they have found, in their personal logbooks.

**What is geocaching?** Pronounced "geo-cashing" (like "cash"), geocaching is basically the same thing as letterboxing only the stakes for treasure are higher and you use a GPS unit to track coordinates and log your treasure's location.

### HERstory

The girls of Troop 280 in Boyne City, Michigan, love science, technology, and the great outdoors. In an effort to blend these topics, they co-wrote an IP called "Not Just Another Treasure Hunt," later adopted by the Girl Scouts of Crooked Tree Council.

### You've Got MAD Skills,

Girl Scouts of the USA adapted their activities for "Hi-Tech Hide & Seek" so girls like you across the country can:

- Analyze "clues" to find a letterbox and/or geocache (pronounced geo-cash, as in "cash" money).

- Create a letterbox or geocache of your own (and perhaps start a trend in your community).
- Explore careers in earth science, cartography (map-making), civil engineering, and electronics.
- Develop and share a love for the Earth and its resources by raising awareness of its "treasures" and "hidden" beauty.

### Helpful Links

There are several organizations and online resources that would be helpful for researching and doing the activities in this IP, like:

- The Letterboxing North America (LbNA) website ([www.letterboxing.org](http://www.letterboxing.org))
- The Geological Society of America ([www.geosociety.org](http://www.geosociety.org))
- The National Park Service ([www.nps.gov](http://www.nps.gov))
- The U.S. Geological Survey ([www.usgs.gov](http://www.usgs.gov))
- Local electronics stores
- Outdoor retailers and clubs
- [www.groundspeak.com](http://www.groundspeak.com).

### Important!

Always have someone with you when "hunting" for clues and "treasure." Your safety is more important than any game. Remember: You're not looking for buried treasure. Clues should lead you to a letterbox or cache without requiring you to conduct an archeological dig.

The hardest part of "Hi-Tech Hide & Seek" should be trying to figure out the clues. When finding a letterbox or cache, use routes that don't require you to infringe on the natural habitat or someone's property rights.

One of the most important aspects of these sports is being careful and respectful of the environment and animals. Be mindful of historical landmarks and the law. If you can't find a legal, reasonable way to conduct your search, ask the property owner or choose another "treasure" to hunt for. It's likely that if a hunt is taking you into questionable territory, you probably didn't "solve" the clue correctly.

### Need Help?

Want more info on IPs? No problem. Read the [Intro](#) before diving into "Hi-Tech Hide & Seek."

Just want a quick refresher on what to do? Okay, in order to earn any of these Interest Projects, you must:

- Do the one REQUIRED activity
- Do ONE activity of your choice from each of the THREE categories (LEARN, DO, SHARE)
- Design and do ONE activity of **YOUR OWN**
- Create a short **REFLECTION** after you've completed **all of the activities**

**Food for Thought!** Often, an activity in the "LEARN" category will help you build a skill that you'll have the chance to try in the "DO" category and then share in the "SHARE" category. Make connections between the "steps" when planning which activities you'll do. For an example of a skill-building connection, check out the fourth activity of each "Hi-Tech Hide & Seek."



# Hi-Tech Hide & Seek

**Required:** To participate in a fun game of "Hi-Tech Hide & Seek," you'll need a few basic tools: a stamp, inepad, logbook, compass, and a pen or pencil. Depending on the clues and where you're "seeking," you'll need a map specific to that area. If your "hunt" involves latitude and longitude, you'll need a GPS unit. All letterboxes and some geocaches ask that you provide proof of your visit by signing their logbook with your personal stamp. Express yourself artistically by designing and making a letterboxing stamp for use by you or your group. Know the recommended materials for making and cleaning letterboxing stamps as well as the suggested logbook design and paper that best preserves stamped designs (all of which are subjected to changes in temperature and humidity).

## LEARN

1. Letterboxing is a hobby that began more than 100 years ago in England, but has been growing in popularity in the United States and other countries. Create a presentation (PowerPoint or otherwise) on "letterboxing basics"—how letterboxing combines many different outdoor activities—including hiking, map reading, and orienteering—as well as artistic expression. Include letterboxing "etiquette" and terminology (mystery boxes, hitchhikers, cuckoo clues, Easter eggs, and personal travelers) as well as the equipment and supplies you'll need to take along with you.
2. Letterboxes and caches are hidden all over the world—and on the Internet in the form of "virtual" letterboxes and "virtual" caches, which can be "found" and logged into online. "Find" one of either type and log your results online to its originator. NOTE: Virtual caches require you to actually visit a physical site in order to answer questions about it online.
3. Geocaching is a treasure hunt using a GPS (global positioning system) unit. Prepare a presentation (PowerPoint or otherwise) on what geocaching is. Include the rules of "etiquette" governing the sport and how to "speak the language," with words like datum, waypoint, travel bug, spoiler, hitchhiker, and geomuggle. Describe what equipment and supplies you should carry with you when you go, and what to look for when you get there. Explain what to expect if you're attempting to find a micro-cache, offset cache, or multi-cache.
4. Know the basics of GPS—what does it stand for, what presidential directive in 1996 made games like geocaching possible? Next, discover how GPS receivers work to determine your location, and how they spawned the sport of geocaching. Check out "GPS: The New Navigation" by PBS ([www.pbs.org/wgbh/nova/longitude/gps.html](http://www.pbs.org/wgbh/nova/longitude/gps.html)). Understand how longitude and latitude create a waypoint, and how waypoints are used as the basis of geocaching. If possible, visit a store that sells GPS units and have a clerk describe their use and compare various features.

## DO

1. Hunt for your first letterbox or geocache. Go to [www.letterboxing.org](http://www.letterboxing.org) or [www.geocaching.com](http://www.geocaching.com) to find "treasures" in your area. Find a letterbox or geocache and exchange stamped images in your log book. Keep in mind that geocaching often differs from letterboxing in the "take an object/leave and object" concept.
2. Create a letterbox or geocache of your own in a place of interest in your community. Start by finding a good hiding spot for your "treasure" and then write clues once you have settled on a location (it's a lot harder to write clues when the finish is unknown). Your clues should use a combination of written words and compass bearings or GPS coordinates. Follow the guidelines set forth at [www.letterboxing.org](http://www.letterboxing.org) or [www.geocaching.com](http://www.geocaching.com) for box/cache set-up (materials and choosing a site that minimizes impact to the environment, and where it is not restricted by any national, state, or local

laws or ordinances).

**NOTE:** After completing the IP activities, continue to maintain the box or cache for at least four months. You may want to post your site on the Internet or limit its use.

3. "Groundspeak Travel Bugs" are hitchhikers gone high tech! Learn how to use a Travel Bug and become familiar with how entries on [www.geocaching.com](http://www.geocaching.com) (when the Travel Bug is retrieved, and later placed in a new box) allow users to trace the migratory path of the bug. If you find a Travel Bug in a cache, learn where it's been as well as where it would like to go. Finally, activate your own Travel Bug and place it in a cache!

**NOTE:** After completing the IP activities, continue to track your Travel Bug's migratory progress on the Internet for at least four months.

4. GPS units are used in search and rescue operations and by fire, ambulance, and police departments to decrease their response times to emergencies. Map makers, surveyors, engineers, and archaeologists also extensively utilize this technology. Interview someone who works in one of these fields to find out the training, education, and experience required for their position and how they use GPS technology. If your interest is primarily in earth sciences (and not technology), the National Park Service employs experienced earth science professionals and students to work with park staffs—their work varies greatly from park to park and may include fundamental research, synthesis of scientific literature, mapping, GIS analysis, inventorying, site evaluation, developing brochures and informative media presentations, and educating staff. Interview someone who works for a National Park to find out the training, education, and experience required for their position. Do they use GPS technology and, if so, how?

## SHARE

1. Organize and host a "Let's Get Letterboxing" event for a group (in or outside of Girl Scouts). Lead a presentation on "letterboxing basics" including a how-to-use tutorial about compasses and topographical maps. Plan and lead the group's hunt for its first letterbox.
2. Create a virtual letterbox for those who are physically unable to search outdoors. For example, contact a local hospital and organize a virtual letterbox hunt for sick children. Introduce the group to letterboxing basics and guide them through their online letterbox hunt.
3. Organize and host a "Go Geo!" event for a group (in or outside of Girl Scouts) to find a geocache. This will require the use of a GPS unit which can be purchased for about \$100 at a local outdoor supply company or major discount chain. Lead a presentation on "geocaching basics" including a how-to-use tutorial about the GPS unit and topographical maps. Plan and lead the group's hunt for its first geocache. Practice "Cache In Trash Out" (while out geocaching, bring a bag with you to pick up trash along the way).  
**NOTE:** The geocache your group "hunts" for cannot be one you have already found individually or created ("DO" activities No. 1 and 3).
4. Are you into geology and celebrating the earth's natural treasures? Do you live near something unique like a cave, mountain, crevasse, fault line, etc.? If so, create an earthcache about a specific, extraordinary geoscience feature in your area so others can learn about and appreciate how our planet has been shaped by geological processes, how we manage the resources and how scientists gather evidence to learn about the Earth. See [www.earthcache.org](http://www.earthcache.org) for review and approval. Your Earthcache must follow GSA guidelines and include a set of educational notes and the details about where to find the location (GPS coordinates)—if your site meets the guidelines and is approved by the GSA, it's then submitted to the wider Geocaching community through [www.geocaching.com](http://www.geocaching.com). Your Earthcache site's visitors will leave an electronic log of their comments about what they learned from visiting the site.