

Activity A4: GPS Treasure Hunt

Note: the procedures described below are for use with the yellow Garmin eTrex GPS receivers (the model supplied in the basic Virginia 4-H GPS Educational Kits). The instructions can easily be altered for use with other GPS receiver models.

Introduction:

This is a basic field exercise that can be used in the early stages of your GPS class since it is simply a series of *GO TO* operations. Using their GPS receivers, student teams race to find the hidden treasure chests, which have been entered as waypoints. Depending on the terrain and hiding places that you select, a Treasure Hunt can be as easy or as challenging as you wish to make it.

Time Involved: approximately 50 minutes

Materials Needed:

- GPS receivers
- “Treasure Chests” – squirrel-resistant containers (such as large coffee cans).
- Treasure – popcorn, granola bars, other small prizes

Getting Started:

See “*Preparing GPS Receivers for Group Activities*”

Prior to your class, stash several small "treasure chests" in scattered locations. You might want to make the same number of treasure stashes as your number of teams. Place enough goodies inside each for an entire team. *Mark* the waypoint of *each* treasure chest on *all* of the GPS receivers. Use a simple identifying name like T-1, T-2, etc. If you have access to an electronic mapping or waypoint management program, the easiest way to accomplish this is to mark the waypoints on one receiver and later use your computer to quickly transfer the data to the other receivers. (Variation: for a more advanced class, you may prefer to provide the set of waypoint coordinates for the students to enter into their GPS receivers).

Do the Activity:

Form teams of "treasure hunters". Explain that a pre-determined number of treasure chests await them, and the locations are marked as waypoints in their GPS receivers. Their challenge is to race against the other teams to find the hidden treasure ... or, the teams may choose to collaborate instead, assigning a different treasure to each team, since there is enough to go around.

Encourage each team to develop an operational plan for their treasure search, something that will involve all team members. Give them a specific time to return, with or without their treasure, and then turn 'em loose. At the end of the search, gather all teams together. Review any problems or questions that arose during the field exercise. Eat any remaining treasure.

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Background Information:

Finding a waypoint, in this case a “treasure chest”, is the most basic of GPS receiver functions. Review the owner’s manual for directions specific to your make and model. Generally, it is simply a matter of locating the desired waypoint stored in the receiver. Then highlight and activate the *GOTO* option. The compass page will pop up with a directional arrow ready to guide you to the selected waypoint. The arrow will likely be pointing in a wrong direction at first, since you must be moving for it to work properly. When you activate a *GOTO*, your receiver will provide a compass bearing from your current position to the destination. Unlike the arrow, this bearing will be correct whether or not you are moving.

*Note: Comments and suggestions regarding this activity and other components of the Virginia 4-H GPS curriculum are appreciated. Please contact Mike Clifford at:
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