WLG 506

WestVirginiaUniversity
EXTENSION SERVICE

Exploring West Virginia Through Geocaching

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Educational Objectives

1. Learn the fundamentals of geocaching and how it relates to GPS technology.
2. Explore historical sites in West Virginia and significant Civil War sites through geocaching.
3. Identify ways that geocaching can be relevant to individuals and families.

What is geocaching?

Geocaching is a technology-based activity that has been growing in popularity. Participants, called geocachers, use hand-held global positioning system (GPS) units to navigate to a set of coordinates, and then attempt to find the hidden container called a geocache. After arriving at the location, the geocacher must use additional clues to find the hidden cache. Once the cache is found, the geocacher can log his/her name and date in the log book found in the cache. The find can then be logged on his/her geocaching account.

Caches are creatively hidden everywhere, so the average person can walk by without noticing it. Many caches are hidden in historical or noteworthy places, giving the geocacher an opportunity to learn more about the location.

Geocaching can be done as an individual activity, as a group event, or as a family outing. There are several themed geocaches organized into geotrails. These can be a fun activity for a family or group to complete together.

How to begin geocaching

It is free to register an account and user profile with *www.geocaching.com*. Once registered, a geocacher can search for hidden caches within an area by typing in a zip code or location. There are eight easy steps to getting started *(http://www.geocaching.com/guide/default.aspx)*.

1. Register for a free basic membership.
2. Visit the "Hide & Seek a Cache" page.

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3. Enter your postal code and click "Search."
4. Choose a geocache from the list and click on the name.
5. Enter the geocache coordinates into your GPS device.
6. Use your GPS device to find the hidden geocache.
7. Sign the log book and return the geocache to its original location.
8. Share your geocaching stories and photos online.

Hidden caches can be anywhere from the size of a plastic Tupperware container to the size of a tube of lip balm. Size and difficulty level are listed on the website. Depending on the size of the cache, it might contain various small inexpensive items called "swag." If it is a microcache, it may simply contain a sheet of rolled paper for geocachers to sign their handle name and date the cache was found.

What is GPS, and how do I use it?

GPS, or global positioning system, is an accurate worldwide navigational system that uses latitudinal and longitudinal coordinates to pinpoint locations on earth. A person can enter any set of coordinates, also known as a waypoint, into a hand-held GPS unit, and the unit will direct him/her to the location.

This geospatial technology has been translated into a more user-friendly form. If a person has an address to enter into a GPS unit, the unit will give the person turn-by-turn directions to reach the desired destination.

Using a hand-held GPS

There are multiple ways to load the coordinates of a cache onto a hand-held GPS unit, and it will depend upon the unit that is being used. The unit's user manual will explain how to enter them directly from a computer using an interface cable and/or how to enter the coordinates manually. If the unit has the ability to be connected to a computer, coordinates can be sent directly to the hand-held unit from the geocaching website.

Once the waypoint or coordinates have been entered, the hand-held unit will display a map with an arrow directing the person where to go. A hand-held unit will typically get a person within 10 feet of the actual waypoint.

Most smartphones have the ability to download a GPS application (referred to as an app), which would allow the person to use his/her phone as a hand-held GPS unit. These apps can also be downloaded to a tablet, such as an iPad; although, a tablet may be more cumbersome when out searching for geocaches.

Geocaching opportunities in West Virginia

On the geocaching homepage *www.geocaching.com*, you can search by location or zip code. The search will bring up hidden caches in the area you entered. The name of the cache, a difficulty and terrain rating (D/T), when it was created, and the last time it was found, can all be found on the listings page. Click on the listing to access the cache's coordinates. For example, clicking on the *ExploreWV Geocoin Challenge #20 Harpers Ferry* cache will take you to that cache's webpage where you will find its coordinates, additional clues, a log book, and comments from other geocachers who have found and logged the cache.

ExploreWV is a program through the West Virginia Department of Education and the Arts that uses geocaching as a method to promote education and tourism throughout the state through their geocoin challenges.

A geocoin challenge is a multi-part adventure, where participants must find and document a

certain number of caches. More information about ExploreWV and its geocoin challenges can be found at *http://www.edandarts.wv.gov/programs/Pages/ExploreWVGeoChallenge.aspx or https://www.facebook.com/ExploreWV*.

West Virginia Civil War Trails

The latest geocoin challenge will highlight historic Civil War sites throughout West Virginia. It is called the West Virginia Civil War Geotrail. More information about the challenge can be found at *http://www.civilwargeotrail.wv.gov*.

Through this geotrail challenge, participants can find Civil War Trails geocaches hidden in historically significant locations. The state has been divided into five zones, and geocachers must find those caches, log those finds, and work towards finding enough caches in each zone to earn a commemorative coin from each of the five zones. If a geocacher earns a coin from all five zones, the five pieces fit together to make the state of West Virginia. While hunting for these caches, participants can also take advantage of visiting the historical site where the cache is hidden to learn some West Virginia history.

Geocaching in West Virginia state parks and forests

Most of West Virginia's state parks and forests have at least one geocache hidden within the park. You can find a complete listing of state parks and the geocaches hidden within them at *http://www.wvstateparks.com/recreation/geocache.htm*.

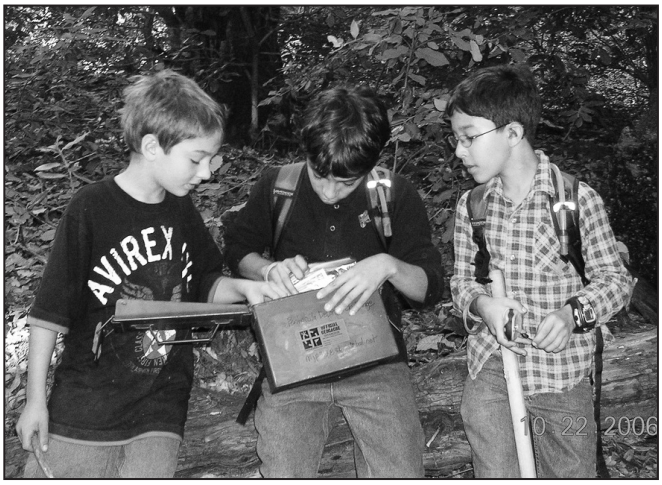
Hatfield and McCoy Geotrail

According to *http://www.hatfieldmccoygeotrail.com/* there are more than 75 miles of scenic southern West Virginia and eastern Kentucky roads, where the infamous Hatfields-McCoys feud took place.

Geocaching and WVU Extension programming

Geocaching is an innovative way to learn about history, while learning more about technology and engaging in physical activity. It could be incorporated into a county program as a community club program or a science, technology, engineering, and math (STEM) special interest activity. Community Educational Outreach Service (CEOS) clubs could introduce geocaching at one of their club meetings.

This program could also provide an adult education opportunity for county CEOS clubs by partnering with county 4-H clubs. CEOS



members and other adult volunteers could mentor youths and allow children interested in STEM activities to form a positive relationship with a caring adult. County 4-H'ers involved in geocaching would be a great learning resource and partner for CEOS members on the topic.

If you need additional help on using GPS technology or incorporating it into your county and club level programming, contact your local WVU Extension Service office for information or to find out where to get more training.

Activity ideas

Geocaching is for young and old, history buffs, adventure seekers, and everyone in between. It can be a fun family pastime or a club activity. Some ideas are:

- Learn about GPS technology and geocaching during a club meeting. Seasoned geocache enthusiasts can provide education and training to members and leaders. Contact your WVU Extension agent to find local volunteers or by contacting the ExploreWV program. Another resource is the West Virginia Association of Geospatial Professionals. *http://www.wvagp.org/default.asp*
- Sponsor a cache. Clubs can hide a cache, track who finds it, and maintain it through the geocaching website. Guidelines on how to create your first cache can be found at *http://www.geocaching.com/about/guidelines.aspx*.
- Sponsor a club event or family day where participants meet, search for, and find local caches. If the event is held at a historical site or a Civil War Trails site, participants could then explore the area to learn more about West Virginia history. Search for hidden caches in any area on the *www.geocaching.com* homepage by entering a zip code in the search box.
- Encourage members and their families to register an account at *www.geocaching.com* and start finding caches, or create and maintain their own cache for other geocachers to find. This is a great activity for families to engage in that gets participants outdoors and engaging in healthy activities.
- Use the "Happy Birthday West Virginia Mobile Geocache Course" to promote WVU Extension and its programming at fairs and expos while sharing interesting trivia about West Virginia. Using the mobile geocache course as a model, with the help of a local WVU Extension agent, or geocaching enthusiast, clubs can create their own themed geocache course. Contact your local WVU Extension agent and ask for the "Happy Birthday West Virginia" curriculum resource book, which includes lesson plans about West Virginia and the mobile geocache course.

Resources

www.geocaching.com

http://www.geocaching.com/guide/default.aspx

http://www.wvcommerce.org/travel/industryinformation/advertisingops/civil-war-trails/default.aspx

http://www.civilwargeotrail.wv.gov/Pages/default.aspx#

http://www.edandarts.wv.gov/programs/Pages/ExploreWVGeoChallenge.aspx

http://www.wvstateparks.com/recreation/geocache.htm

http://www.hatfieldmccoygeotrail.com/

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