



Geocaching is a global game of treasure hunting (and seeking!) for people of all ages and abilities as can be done as a team.

There are over 2 million caches or boxes geo-located across the world. They are found using Global Positioning Systems (GPS) which children will understand as satellites pinpointing your location on earth. There's a short and fun animation available here on Brain Pop explaining what GPS is and how it works.

Discover A Forgotten Landscape Project's own exciting geocaches during the life of the project.

What is the educational case for geocaching?

- ✓ Geocaching can meet the needs of a range of learning styles.
- ✓ Geocaching can help children develop key skills: team work, problem solving, enquiry, investigation and analysis.
- √ Geocaching increases children's sense of place.
- ✓ Geocaching increases children's awareness of GPS and GIS technologies and provides the opportunity to use different equipment.
- ✓ Geocaching is a gender-neutral activity so there are no excuses!
- ✓ Geocaching takes place in both urban and rural locations.
- ✓ Geocaching takes place outdoors; a good reason to get some fresh air
 and get active.

For curriculum linked ideas click here



How to use this guide

Helen Horler, former teacher and Education Consultant from <u>Culture Force</u>, has created this introductory guide to geocaching. She hopes you will share her enthusiasm for the potential of geocaching as a learning tool and she demonstrates how it can help meet the aims of the National Curriculum 2014. Geocaches can be used as an introduction to a topic and accessed free of charge. They make for a useful stimulus for a written piece of work and can be made with very little in terms of materials. This guide is not designed to replace the comprehensive guide on geocaching.com. <u>Geocaching.com</u> is the home of the geocache.



Who does it? Anyone can! Geocaching is suitable for any age or ability when accompanied.

How do I get started?

To go and find a geocache near you or upload one yourself you'll need to download an app for example from Geocaching.com

How did it get its name?

Geocaching, first coined by Matt Stum in 2000 and was the joining of two familiar words. The prefix geo, for Earth, was used to describe the global reach of the activity and use in geography and GPS.

Caching, from the word cache, has two different meanings. A French word the original definition referred to a hiding place someone would use to temporarily store items. Geocaching.com points out that the word cache stirs up visions of pioneers, gold miners, and even pirates. Today the word is still even used in the news to describe hidden weapons locations. The term 'Cache' is also used in computer storage.

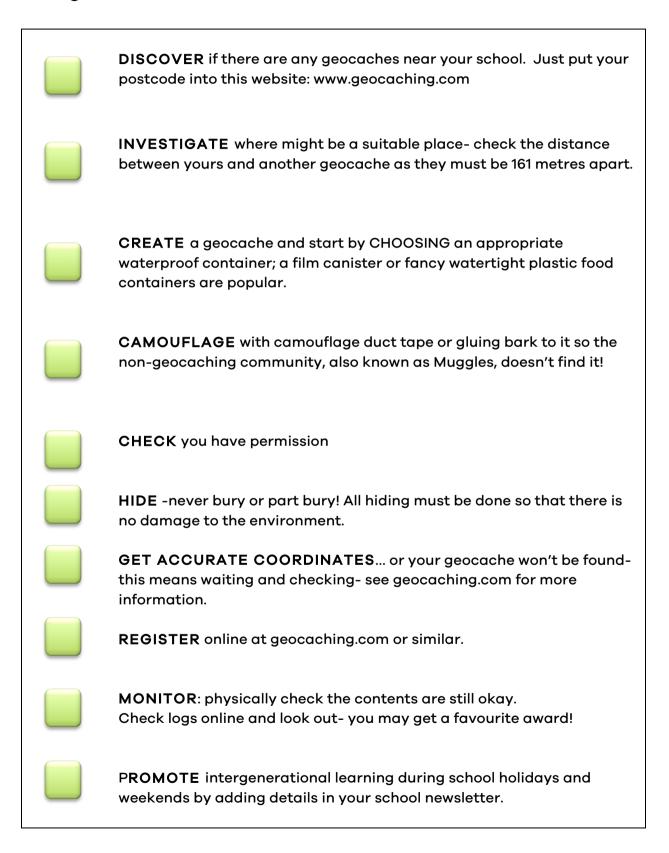
How to make your own geocache:

A fun introduction to geocaching for your pupils is <u>here</u>.

Firstly, Helen recommends getting to grips with geocaching's very sensible rules. This will set some limits beforehand rather than invest lots of time creating a geocache that may need changes you can get it right first time.



A Step-by-Step Checklist to create your own UK geocache





Some top tips:

- Choose a waterproof box so everything will fit in and check sizes if you are ordering without seeing first.
- Get accurate coordinates for where it will be hidden. Stay in same spot for 10 minutes if necessary.
- Don't add anything that will excite an animal! No food or pungent smells!

Want some inspiration? Here is one we did earlier!

This geocache is more comprehensive than usual as it has: Something to wear, information sheets and music, home made postcards, stamps and all geocaches have a log of some kind. This one has a book.



Photo credit: Helen Horler



curriculum linked ideas

English: Descriptive writing or to landowners or councils. Describing the experience of finding a geocache

Maths: Great for teaching distance and estimation. Maths based questions based on what they can see in the box.

Science: A real life and relevant introduction to space, satellites and GPS.

Art: Draw on location and from life.

Geography: Fieldwork is encouraged and expected at Primary level and we can all cite some of our best lessons outdoors. Geocaching can meet the following curriculum aims:



Photo credit: Helen Horler

- Interpret a range of sources of geographical information, including maps, diagrams, globes, aerial photographs... and Geographical Information Systems (GIS)
- Communicate geographical information in a variety of ways, including through maps, numerical and quantitative skills and writing at length.
- KS1 Fieldwork you use maps and compass directions and locational and directional language to describe location of features.
- Use simple fieldwork and observational skills to study the geography of their school and its grounds and the key human and physical features of its surrounding environment.

You could try a geocaching and orienteering competition- who finds it first or even an interschool competition!

Physical Education:

Geocaching can help meet three of the four aims:

- Are physically active for sustained period of time
- Engage in competitive sports and activities
- Lead healthy, active lives

Don't forget, Key Stage 2 are expected to take part in outdoor and adventurous activity challenges both individually and within a team. Ideas: could you create an assault course from nature's props such as a sturdy branch to balance on the way, hop through some flora and fauna made shapes?

History: local history study Ideas: hide artefacts in the cache (remember it can be living history!).



A curriculum based example to try if you are local to Lawrence Weston.

Romans in Lawrence Weston

Curriculum areas:

History

- Local history study
- History- The Roman Empire and its impact on Britain especially 'Romanisation of Britain'

Geography-learning about farming in the area.

1. Visit to Lawrence Weston Roman Villa Could get access to the Roman Villa through contacting Lawrence Weston Community Farm. If this isn't possible the following could be tried...

2. Geocache set by teacher for students to find on arrival a Roman servant greets the pupils at the villa (Teacher or parent in costume)

3. Activity from geocache

Within the geocache children could find a mosaic making pieces that creates a clue to find the missing piece to complete a story.

- 4. Pupils return to classroom and follow up with writing up their story and giving it a different ending that involves the character they met or from the perspective of that person.
- 5. Pupils create geocache for their families. Engaging families in their child's learning.





FUN FACT: Royal Geographic Society reports that a small school in California hid a travel bug (a trackable object) in one of their school caches. The travel bug travelled 4,780 miles, through 21 geocache sites, taking over two years.

The students followed using Google Maps on a computer, and the bug finished up being carried by one of the competitors in a sled dog Race in Alaska.

Glossary

Cache - a waterproof box full of goodies. A cache can come in many forms and should always contain a logbook. This tells you who has found the cache. Other low cost items that can be swapped include: maps, plastic toys, pictures, jewellery, tickets, trinkets, tools, small games

Travel bug - a tagged identifier a tag that is designed to be moved from cache to cache. These can be tracked using GIS, for example Google Maps from the via www.geocaching.com.

Trackable -

GPS - Global Positioning System. See here for a useful animation. A worldwide satellite navigational system whereby satellites orbit the earth and their corresponding receivers are on the earth. The GPS satellites transmit radio signals that contain data on the satellites location and the exact time to the earth-bound receivers.

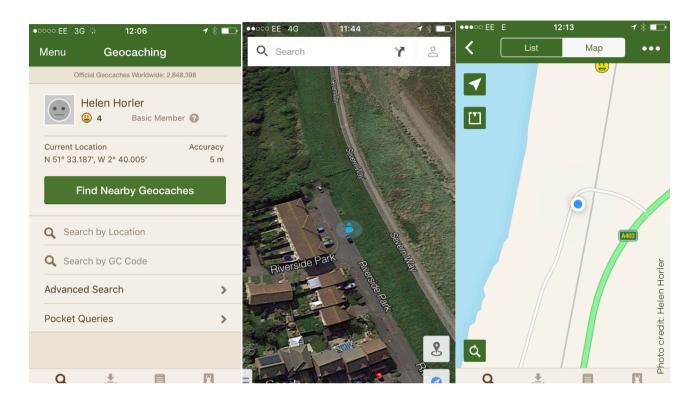
By using three satellites, GPS can calculate the longitude and latitude of the receiver based on where the three spheres intersect.

Waypoint - Waypoints are sets of coordinates that identify a point in physical space. These coordinates usually include longitude and latitude, or an Ordnance Survey (OS) grid location. Waypoints can be transferred from the GPS device to a computer or vice-versa

Note: Some companies have already identified 'Educaching' as a teaching tool such as the educaching.com curriculum created by an American held company. This guide focuses on geocaching.



Screen shots from a geocache app:



References

<u>Teach primary</u> <u>Royal Geographic Society</u>