

# Geocaching

## What is geocaching?

Geocaching refers to a sport or hobby involving finding objects using GPS data to log the location of the cache.

The *geo* part comes from geography and the *caching* part relates to hiding and finding a cache or treasure.



## What is a GPS?

GPS stands for **Global Positioning System**. About 20 years ago, the Department of Defense developed the Global Positioning System- a high-tech simulation of the ancient method of navigating according to the position of the stars. They launched **25 satellites** into orbit. These satellites have a steady orbit, so GPS receivers use them as fixed points from which to determine their own position. The satellites transmit coded radio signals which are picked up by GPS receivers. With a distance reading from at least three satellites, a GPS unit can pinpoint its current position on the earth, similar to the way a hiker determines where he is on a map by referencing three or more distinct locations. This is called **triangulation**.

## Using Coordinates

A GPS unit will display both direction and longitude and latitude **coordinates**; a set of numbers that represent locations on the Earth's surface relative to other locations. Specific coordinates defined by longitude and latitude that pinpoint an exact location is called a **waypoint**. By saving waypoints in your GPS, you can graph your trail or geocaching journey.

## A Raisin in the Sun

Place your 4 raisins somewhere in the area below. Each raisin will represent a **vertex**.

Now, draw lines connecting these raisins to form your graph.