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Geocaching to Review for Assessment

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Grade Level (Req.): 9th-12th grade	Content Area (Req.): Human Geography, Technology	Unit (Opt.):
Connections to Other Disciplines (Opt.): • • •		

Time Frame (Req.): One 90 minute block or two 45 minute classes	Goal (Req.): To use digital tools to gather, evaluate, and use information.
	Objective (Req.): Students will use a GPS device either individually or in groups to search for answers to an assessment's review questions. Students will become familiar with the technology aspects of GPS but also prepare for whatever assessment (Quiz, Test, Unit Exam) that a teacher chooses.

Materials Needed (Req.): • GPS Device (many smart phones are equipped with a GPS application) • Review materials (different for each teacher, depending on what you are preparing to assess) • Containers to place answers for the review materials – process used for geocaching • • • •	New Vocabulary (Opt.): • Geocaching • GPS – Global Positioning System • Waypoints • •

Anticipatory Set/Introduction [Inquiry Question is required] (Req.): How can you use GPS technology and geocaching to promote learning opportunities?

Instructional Sequence/Procedure (Req.):

1. Conceptually this is an activity that engages the students in the use of technology in a competitive way to review for any future assessment. Students are introduced to GPS and the concept of geocaching, simultaneously they are reviewing for an assessment in a new and exciting way.
2. First step is to figure out the need and possession of GPS devices. Most smart phones have some application that allows this but hand-held GPS devices may also be available. Once you have an idea of how many devices exist you can determine if this would even work for your classroom. If technology is limited then one could always create maps and distribute them as part of the scavenger hunt.
3. Using a GPS device the teacher then needs to plot the coordinates using waypoints to create the locations around the campus for the scavenger hunt. The number of waypoints depends entirely on how many review terms you want students to do. It is during this process that you get to do the fun stuff and actually place the items around campus.

4. The teacher should then create a document that contains the locations that were entered into the GPS device and distribute to the students. It may be wise to create different starting points for different students by mixing up the order of the waypoints coordinates.
5. The students will then activate their devices and go on the scavenger hunt. Ideally this works very well for a block schedule class but if a teacher can devote two days to the review in a regular set-up then by all means to do so.
6. Be sure to help students troubleshoot any problems they may have such as incorrect data entry or malfunctioning technology. An in class tutorial on how to use GPS would ideally have been completed before giving this assignment.
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Formative Evaluation (Req.): This is an easy-to-evaluate process. Are students finding the coordinates and accessing the review materials?	Assessment (Req.): Students will reflect on how this technology can be useful in daily life and also evaluate how this type of review compares to previous reviews they have done. Students will answer these questions in a 2-3 paragraph response. The true assessment is the material that they had been reviewing for. Using GPS and geocaching was a fun, technological way to do it.

Iowa Core Curriculum Standards Used (Req.):
- Geography, grade 9-12: Understand the use of geographic tools to locate and analyze information about people, places, and environments
- Economics, grade 9-12: Understand the impact of advancing technologies on the global economy
- (Any other connections related to the curriculum you were reviewing)
- Technology Literacy (21st Century Skills), grade 9-12: Apply digital tools to gather, evaluate, and use information
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Common Core Curriculum Standards Used (Opt.):
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NGS Standards Used (Req.):
- Using technology to acquire, process, and report information from a spatial perspective
- (Any other connections related to the curriculum you were reviewing)
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Five Themes of Geography Used (Req.):	School District Standards and Benchmarks (Opt.):
• Location • • • •	• • •

21st Century Universal Constructs (Opt.):

Other Disciplinary Standards (Opt.):
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Other Essential Information (Opt.): You might need training in how to use GPS and the concept of geocaching. Visit www.geocaching.com to learn more.

Other Resources (Opt.):
- Inquire around your building/district/AEA/local government about the availability of GPS devices.
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