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http://www.humankinetics.com/AfcIcon/Icons/Blank.gif**Ashley (Carr) Mundrick & Loveda Van Der Molen****Geocaching in the Classroom: Travel Bug****Academic Content Standards****6th Grade, Geography Strand, Spatial Thinking and Skills**:**3. Globes and other geographic tools can be used to gather, process and report information about people, places and environments. Cartographers decide which information to include and how it is displayed.**~Students can use globes, maps, and Google earth to locate where their travel bug is every time it gets moved. Students can then gather information about the people, places and environments where their bug is located and report on it to the class. Each student in the group or class can take turns being the cartographer and report on their findings.**4. Latitude and longitude can be used to identify absolute location.**~Students will use latitude and longitude to find the exact location of their travel bug on a map, globe, or Google earth by using the coordinates given by the mover of the bug.**5 Themes of Geography****Location: Students will find the exact point on a map of places using latitudes and longitudes.****Place: Students will research the characteristics of the places that their travel bug travels.**

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**Overview**Students will purchase and activate a travel bug and will track the bug as it moves on its adventure from school to school or community to community.**Objectives**By participating in this learning experience, students will improve their ability to do the following:* Use latitude and longitude to locate where their travel bug has traveled through geocaching.
* Use globes and other geographic tools to gather, process and report information about people, places and environments where their travel bug visits.

**Equipment**A travel bug, digital camera, paper, 3 x 5 index card, pen or pencil, and computer**Organization**(Students need to know what geocaching is and understand the process before this activity can take place).In the beginning phase of this learning experience, students will work together as a whole class or in small groups of three to five students. Once the travel bug or bugs are placed, students may work more individually when checking for travel bug movement. Each time the travel bug is moved, an individual student can be responsible for reading the message on the computer, viewing (and downloading) any digital picture submitted, writing a return message thanking the geocachers for moving the travel bug, reporting to the class regarding the travel bug’s new location, and locating the travel bugs new location on the class/group map and marking the location.**Description**The beginning of this learning experience can be designated as a whole-class or small-group activity. This depends on how much you want the students to participate and how many travel bugs you are willing or able to purchase. Teach the students how they can go online to [groundspeak.com](http://www.groundspeak.com) to order one or more travel bugs. Next, go to [geocaching.com](http://www.geocaching.com) and click on Trackables (on the left side of the page) and then click on Travel Bug FAQ (frequently asked questions). Discuss with the students all of the information provided about travel bugs and tell them about your intended project. The goal for the class is to purchase one or more travel bugs, send them on a mission such as visiting schools around the United States, and correspond with cachers who find the bugs.Once the travel bugs are purchased, students need to go to part 2 (owner questions) on the Travel Bug FAQ page of the Web site to learn how to activate their travel bug. They will need to use the activation wizard on the Web site and the activation codes provided on the travel bugs. Make sure you develop a small note or description of your travel bug and its desired goal. You could take a digital picture of the travel bug and write about your goal of having the bug visit different schools. Mention that the goal includes having the bug get its picture taken with cachers at school sites before being relocated to a new cache nearby. Put this information on a three-by-five-inch index card (using both sides if necessary), laminate the card, and attach it to the key chain provided with the travel bug. Include a request for cachers who find your travel bug to send you their picture over the Internet, which they can do when they register the find. (Once the travel bug is registered, it will have a special code assigned to it. Anyone who finds the travel bug in a cache as it travels can use the information to contact the owners of the cache.) In addition to requesting a picture, you should ask the cachers to send the coordinates for the new location of the travel bug and any information about the school or area where they placed the bug.Now the adventure begins. After the travel bug is activated, the next task is to place it in a nearby cache. To create a flurry of initial activity, you could ask several students to grab the travel bug on a family excursion after school or on the weekend. These students would take a picture at a local school, place the travel bug in a new location, and register the find online. You could develop a sign-up sheet for taking turns and checking out a GPS unit.At some point, independent geocachers will grab the travel bug and take it to a location of their choice—perhaps a school in a nearby town, or, who knows, perhaps a new county or even a new state!Now it is the students’ job to take turns corresponding with the finders of the travel bug by using the Internet. Students should thank the cachers for their pictures and the messages they send. Have the students provide the cachers with some information about your school and project. Students should encourage the cachers to take the travel bug to a new school soon.**Key Points*** Monitor the travel bug regularly to keep interest high among the participating students. Has the travel bug moved in the last week? Where has it gone? How far did it travel? What school or location did it visit? What did you learn about that school or area?
* When it is a given student’s turn to track the travel bug, make sure that the student knows how to access the location of the bug on the computer and how to correspond with the visitors via e-mail.

**Variations*** Create and place a travel bug with a goal of visiting different historical sites and having its picture taken at these sites. Students can correspond with geocachers who take and place the travel bug as well as research information about the history of a given site.
* Create and place a travel bug with a goal of visiting state capitals or county seats and having its picture taken at these sites. If you start this project at the beginning of a school year, you can track how many states or county sites are visited during the school year. Students can correspond with geocachers who take and place the travel bug as well as research information about each state capital or county seat.
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Have a class map/or maps for each group to keep track of the different locations of the travel bug. Have bug stickers so when students find the latitude and longitude of their travel bug on their map they can place a sticker on the location and then research the new location every time the bug gets moved. Students can then present at the end of the year the journey their travel bug took and the different locations it reached on the map. Students can then show their map where they marked specific locations of their travel bug all year.