Background:
The goal of 4-H *Exploring Spaces, Going Places* is to offer experiences and opportunities that allow learners of all ages to increase their knowledge, skill, and understanding of geographic and geospatial-related ideas and problems.

Resource:
Setting Out—Beginners Level 1 Data Collection Activity #2, Data, Data Everywhere

Materials Needed:
Copy of websites from http://www.ilovegis.com/links.html, computers with Internet connectivity, paper, pencils, newsprint and markers.
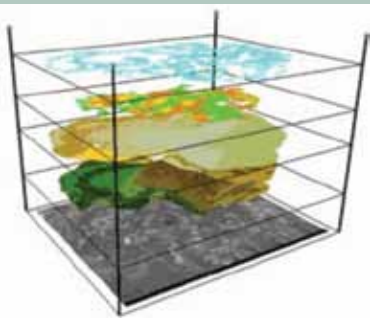
Preparation:
Make copies of websites. Turn on computers and log in. Allow 30 minutes for preparation and set-up.

1   Opening Activity

What to Do	What to Say	Minutes
As staff arrive, have them sit at a computer.	Welcome. Please find a computer, get comfortable and we will start shortly.	2

2   Curriculum

What to Do	What to Say	Minutes
Show the *Exploring Spaces, Going Places* curriculum. Handout list of GIS websites from http://www.ilovegis.com/links.html. Click on Restrooms in New York City (http://www.nyrestroom.com). Give the participants 7 minutes to explore the websites.	Maps and what's included on them; this is a simple way of describing this project. But, it's much more than that. Because this project is different in many ways from other 4-H projects, let's take a little extra time to learn about the curriculum. The maps talked about in *Exploring Spaces, Going Places* are digital. Like paper maps, there are dots or points that represent features such as cities, and lines that represent roads and rivers. All of this information- where the point is located, how long the road is, and even how many square miles a lake occupies - is stored as layers in digital format. Think of this geographic data as layers of information underneath the computer screen. Each layer represents a particular theme or feature of the map. One theme could be all the roads in an area. Another theme could represent all of the lakes in the same area. Yet another could represent all the cities. The themes can be laid out on top of one another, creating a stack of information about the same geographic area. Each layer can be turned off and on. Each person controls the amount of information about an area that is seen, at any time, on any specific map. Totally confused? Let's take a look at some websites to get a better understanding of what GIS is all about. Here is a list. My favorite is "Restrooms in New York City," which shows bathroom locations all over the city. Another site shows what each county in New Jersey is doing to harness alternative energy sources on the energy map. Are you getting the idea? Now, think about your world. Think about what you see. Are all areas alike? How are they the same? How are they different? *Exploring Spaces, Going Places* helps young people learn about the world around them through digital maps.	10

3   Staff Introductions

What to Do	What to Say	Minutes
Complete introductions.	I realize the description of the curriculum was long but it was important for everyone to understand the content included in this curriculum. Now, let's quickly introduce ourselves and tell the one place you would want to include on a community map. Would it be where you live, work, hang out, shop or your favorite restaurants?	5

4   Doing an Activity

What to Do	What to Say	Minutes
Participants draw a map of their neighborhood including features such as streets, trees, stores, houses, and fences. Have staff share their maps in small groups to compare and contrast their maps.	This activity demonstrates the importance of collecting positional data. Positional data reflects the latitude, longitude, and altitude (x, y, z coordinates) of a point. Position may refer to an object's orientation (facing east, for example) without referring to its location. It describes a specific location. Positional data is used for many reasons including navigation, identification, and organization. Airplane pilots use positional data to get from one location to another, and foresters use positional data to identify and locate specific trees. Finally, geographers and cartographers use positional data to organize information into maps. Collecting positional data can assist in locating a place, calculating how many people live in a town, or even investigating what types of trees are in the neighborhood. Using the supplies available draw a map of your neighborhood. Include features like streets, trees, stores, houses, and fences. These features are examples of positional data. Compare your map with those around you. Did everyone list the same features? Why are different features or positional data included? How can the list of features or positional data be organized into categories? What features or positional data are not included that would be helpful for others? Have you ever had to use positional data to solve a problem? Is the map you created similar to other maps you have seen?	20

5 Sharing Ideas

What to Do	What to Say	Minutes
Have a short discussion about how the information in this project can be used.	Do you think youth would enjoy using GIS and GPS? Would this activity need to be changed for children or youth? Was this a useful experience?	2

6 Applying the Experience

What to Do	What to Say	Minutes
Apply this experience to other activities at the center.	What did you learn from this that can be applied to some other programming planned for this week? How can this information be used to provide a service to the community? Could the project group develop a positional map of CYS Services? Would that type of map be useful to new families or employees?	3

7 Making a Plan

What to Do	What to Say	Minutes
Make a plan for starting *Exploring Spaces, Going Places*.	Now it's time to work as a group and set some dates for the project. When should meetings begin with the children and youth? Who is the adult project leader? When should another planning meeting be scheduled?	7

8 Closing

What to Do	What to Say	Minutes
Summarize and close.	*Exploring Spaces, Going Places* can be used with almost every other 4-H curricula. Get ideas from the youth and plan 6 to 10 activities for the project. The 4-H project materials all have lots of activities that can be turned into lesson plans and are fun for adults and children. Thank you for your interest and enthusiasm.	2