

Spatial Thinking

Mapping the Neighborhood

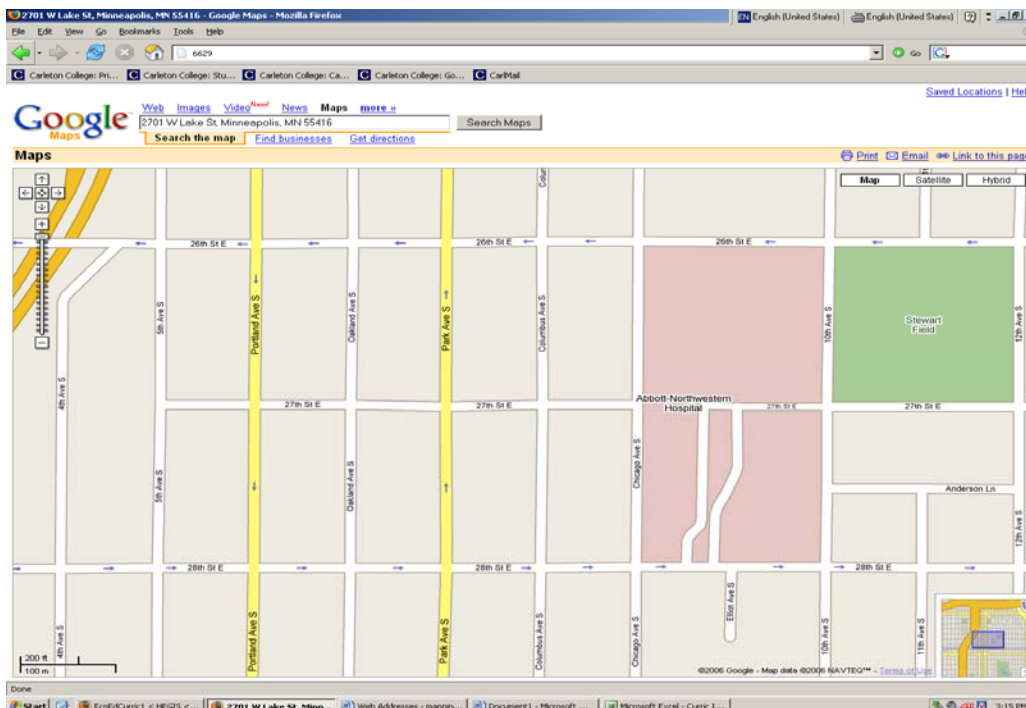
TEACHER'S GUIDE

OBJECTIVE: Besides getting more familiar with exactly what's in the neighborhood, the goal here is to get the students thinking more spatially. The challenge will be for them to take what they see in the neighborhood and place it in the correct location on their map.

OVERVIEW: For this exercise you will be using Google Maps to get a basic map of the streets in your neighborhood. Then you will have the students walk around the neighborhood, filling in all the missing details. When that is finished, you will review their work, using it to look for interesting patterns as well as ask questions about the layout of the neighborhood (e.g., why things are where they are).

PART 1

1. To begin, you will need to get a map of your neighborhood. To do this...
 - a. Go to <http://maps.google.com>
 - b. Type your school's address in the blank at the top, including city and state, and click on the SEARCH MAPS button on the right side.
 - c. Along the left side, click on the "+" button to zoom in closer. The map should look similar to the one below.
 - d. Print the map of your school



2. Select the area you want students to map out (probably between 4 and 8 city blocks). The size of the area you select will depend on how much time they will have OR what you think would be most interesting and/or challenging for the students.
3. Make copies of the map for your students to use. You may want to use the copier to enlarge the map even more so students have plenty of room to draw and label items.
4. Hand out the maps to the students and give them time to map what they see in the neighborhood. You may want to give them extra copies; if a student makes a mistake, they may prefer to start over.
5. Next time the class meets, discuss the maps they made. Some potential topics:
 - a. How easy was it to draw things exactly where they belonged on the map?
 - b. Was it difficult to know exactly how large or small to draw various items?
 - c. What are some things that a few students included, but others omitted? Why?
 - d. What level of detail did most students use when drawing their maps?

PART 2

This session focuses on teamwork. You can use the same map area as before, or set up a new area for them to map using Google Maps as in Part I

1. Assign each person (or group of people) a specific theme that they will map out. Some themes to include would be:

- Houses	- Parks	- Communication Devices
- Power Lines	- Businesses	- Water/Sewer Locations
- Trees	- Lakes, streams	- Streets, Alleys, Parking lots
2. Have them go back out and map only the items that match with their theme, trying to be as detailed as possible and accurate with the shape and location of features.
3. Back in the classroom, put the themes together and see how closely things line up. Copy the maps onto transparencies and try combining (overlapping) different layers to see how well they line up. Also look for patterns and discuss how things fit together, why certain things are where they are etc.