



Schoolyard Mapping

Summary

Groups of students are assigned different schoolyard mapping projects. The information is collected and overlaid on an original base map. Information gathered by students will help plan a schoolyard restoration garden.

Objectives

Students will:

- explore their schoolyard through focused observation.
- find the best location for a schoolyard habitat garden project.
- look for patterns in collected data.

Materials

- clipboards for each group of students
- clear photocopied transparencies of the schoolyard outline
- multi-colored pens (one color for each mapping project)
- compasses

Activity

Separate students into groups of three to five students, depending on how many mapping project questions you want students to answer. Give each group a clipboard, a photocopied transparency of the schoolyard outline, a multi-colored pen, a compass, and at least one focus mapping question (see below).

Allow students to explore the area for at least twenty (20) minutes. It is recommended that each group record date, time, and cardinal directions on their map. Ask students to imagine that they are flying over their schoolyard when they are doing their mapping project. This is called a 'map view'.

Possible questions:

- Where are the water sources?
- Where does water drain and collect?
- Is there evidence of erosion?
- Locate and record the traffic patterns of wildlife, people, and vehicles.
- Where do animals (birds, insects, gophers) live (hang out together)?
- Where do humans gather?
- Mark all locations where plants live. Tree? Shrub? Grass?
- Locate and record sunny, shady, and windy areas.
- What types of soil are found (wet, dry, well-drained, acid, alkaline, clay, sand, loam, etc.)? Locations should be identified beforehand.
- Where is soil being made?
- Find and mark utilities (gas, water, electric, sewer, power lines).
- Site History; Is there evidence of past land use?
- Which elements of the schoolyard should be preserved, enhanced or developed?

After students have explored their schoolyard and recorded the information on their maps, gather them back together as a group. Have each group explain what they were looking for and what they found. Overlay each transparent map on top of each other as each group presents their findings. Have students look for patterns within the data. What questions do students have now about their schoolyard?

Explain that this system of mapping is how GIS (Geographic Information Systems) works. Layers of information are placed on top of one another to create a picture of the schoolyard. We can take away and/or add information as we need it to answer questions.

Things to Think About

If you are considering a schoolyard habitat garden; some areas of your schoolyard may already be visited by wildlife. These areas may naturally provide some or all of the essential habitat elements. In such cases, you should seriously consider conserving or restoring what already exists. It is equally as important to restore and conserve natural habitat areas as it is to create new ones.

Standards Addressed

Grade One: Social Studies 1.2.3

Grade Two: Science 4a

Grade Three: Science 2a, 4e

Grade Four: Science 6a

Grade Six: Science 7h

Grade Seven: Science 7d

Adapted from Laura Lee Lienk and the National Wildlife Federation's Schoolyard Habitats Project.