



## Outdoor Biology Instructional Strategies

### MAPPING A STUDY SITE

#### BACKGROUND: THE ACTIVITY AT A GLANCE

Before having the children delve into the specific mysteries of a selected study site, it is often a good idea for them to become familiar with the site as a whole. Mapping a site is one way to “get the lay of the land,” or identify the major features of that site.

Your group will be divided into teams of two to four and each team will be responsible for a section of the study site. Each team will use colored labels to map the features of its section of the outdoor site. After mapping, the teams place their section maps together to form one large map of the outdoor site. With the complete map before them, the teams discuss and choose names for the distinctive features of the site.

#### CHALLENGE

Map the major features of an outdoor site.

#### MATERIALS

##### For the group:

- 1 data board (see Tool Box 1)
- 1 bag of eight different-colored tags, tapes, contact paper, or paper dots
- A marking pen

##### For each team:

- 1 data board with a section of the overview map on it
- 1 bag of eight different sets of colored tags (each team will need approximately 30 of each color)
- 1 marking pen

#### PREPARATION

1. Before the activity, the leader should obtain permission to use the site and become familiar with its landmarks.
2. The large overview map can be prepared ahead of time or can become part of the ACTION with the group’s participation.

3. The size of the activity area will depend on the number of teams mapping. As a general guide, each team should have an area 10-20 meters square to map.
4. For each team's data board you will need a piece of thick cardboard or some similar material for backing. A good size is 80 cm. by 60 cm.
5. Using some sheets of butcher paper the same size as the backing, staple, clip, or thumbtack one sheet to each board.
6. Lay all the team data boards together and, using this enlarged space, draw a large overview map of some of the physical features (e.g. streams, roads, buildings) to define the boundaries of the site, but do not include biological features.
7. Now, when the boards are separated, each team will have a section of the master map on which to add the biological details.

## ACTION

1. Construction of the Key
  - a. On site, point out the boundaries of the study site.
  - b. Lay out the individual boards so the entire study site is illustrated. Tell the group they are going to map the features of this site by using colored tags to represent organisms. Before they can begin, however, they need to construct a key to tell them what each colored tag means.
  - c. Show them the eight different colors of tags, and ask the group to suggest a different-colored tag for eight major biological features of the site.

Example of key for a park mapping site:

Dark Green	Trees
Light Green	Bushes
Yellow	Grasses or lawn
Black	Dead trees or logs
Red	Weed beds
Gray	Ant hill
Brown	Animal holes
Orange	Bird's nest

Special features such as 12 trees instead of just 1 or 2 can be noted with felt pens.

2. Divide the group into teams and give each team a data-board section of the map. Review the limits of each section and give each team a bag of colored tags.
3. Ask each team to duplicate the key on their own data-board section map.
4. Introduce the challenge to the teams: Using the colored tags and marking pen go to your section of the activity site and map the major features. A precise scale for the map is not necessary; simply place the colored labels on the map approximately where features are located in the study site.
5. When everyone is finished exploring and mapping their area, put the sections of the map together and admire the completed map

Encourage the naming of certain landmarks and write them on the map (e.g. "Boat Dock Cove," "Eagle Mountain," "Look-Out Rock", or "Frog Island").

### WHAT DO YOU THINK?

1. What is the most common color on each map section and which features do these four colors represent?
2. What is the most common color on the overall map and which feature does it represent?
3. Which section contains the greatest number of different colors and which section the least? What might explain the differences in these two sections?
4. In which section do you suppose man's influence is most evident? In which section is it least evident?
5. In what ways do you think man may have affected the biological features of the activity site?
6. What do you think this site looked like fifty years ago?
7. What do you think this site will look like fifty years from now?

### WHAT TO DO NEXT

*What Lives Here?*

*Habitat Sun Prints*

*Plant Distribution Patterns*

*Sticklers*