



## ACTIVITY

# Site Design

### Summary:

*Participants create a site plan for their habitat project.*

### Grade Level:

3-12

### Time:

1 hour or more if broken up over several days.

### Learning Objectives:

*Participants will be able to:*

- ◆ Compile information they have collected to create a working design plan.
- ◆ Determine appropriate habitat type based on an analysis of compiled information.
- ◆ Describe how their site plan meets the four basic needs of wildlife.

### Materials Needed:

- ◆ Field guides
- ◆ Butcher paper or poster board
- ◆ Pens, pencils, markers, crayons
- ◆ Construction paper, masking tape, and scissors (optional)
- ◆ Different objects of various shapes and sizes to represent habitat elements

### Background:

A group will create a better design plan for their habitat site if they consider site location, existing features of the area, the type of habitat, the kinds of wildlife they wish to attract, the function the habitat will serve, and who will use the site. Some of these considerations may have been covered if the group has made a map of the general area (schoolyard, recreation center, empty lot, etc.) in the Site Mapping activity. If so, they should revisit their site maps.

It is important to address where the site will be located because that will largely determine what type of plant community (i.e., woodland, meadow, wetland, prairie, desert, coastal, etc.) might best fit in that area. Soil type, moisture, and sun and wind exposure will all influence how well different plant communities will grow on a given site. Participants can research the requirements of different plant communi-

ties themselves, or they can enlist a local gardening expert to help.

Terrain features and vegetation that already exist on the site should be considered in the design as well. For example, a rotting log or a pile of rocks might serve as a habitat for insects, which in turn might serve as food for salamanders, lizards, some types of birds, and so on.

A wildlife habitat site attempts to meet the basic needs of wildlife: food, water, cover, and places to raise young. Plants and other features added to the design should support this effort. If the participants are not familiar with the basic needs of local wildlife, they should either do some research “Habitat Hunt” on p. 166, is an excellent way to facilitate this research) or consult a local expert, such as a game warden or park ranger.

Finally, the design should take into consideration the function of the area and the people who will use it. For example, a learning environment might include an open space and benches for a small group to sit. A site designed to attract specific birds might have a birdbath, a specialized style of birdhouse, and an unobtrusive place for people to watch them.





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### What to Do:

1. Tell participants that they now have the opportunity to create a working plan of their habitat. Once the site has been chosen, have the group revisit their findings in the Site Mapping activity. It is important for them to be familiar with existing features of the area. If they have completed the Dream Habitat activity, they should have these handy as inspiration or as a source of ideas.

2. If they have not already done so, have the group decide what sort of wildlife habitat elements would be the best fit for the site. They may need field guides to do some research.

3. Go out to the proposed site and have participants decide the dimensions of their habitat site. Mark off and measure the outline of the plot.

4. Draw, or have participants draw, a large outline of the habitat on butcher paper to be placed in a large open area on the floor so that everyone can see and work on it. Include physical boundaries and any elements that will not be changed by your project (e.g., large trees, a stream, a permanent walkway, etc.) and that are very close to the plot.

5. Determine which plants or other elements, such as rotten logs or large stones that the group would

like to keep in the same spot. Have participants draw these elements on the map. Keep in mind that the group can move small, existing plants from one spot to another, though it is easier for the group and easier on the plants if they stay where they are.

6. As visual aids, provide participants with objects of varying shapes and sizes. These will represent plants or other habitat elements, so they should be labeled. Have the group design the site with these objects. Try to get the different objects to match the scale of what each represents. For instance, if a soda can with a big green circle of construction paper on top were supposed to represent a tree and its canopy, it would be best to find a much smaller object to represent a small perennial flower. Participants should be able to remove, add, or change positions as many times as they wish before settling on a set design, so use rolled up masking tape or some other non-permanent means of attaching objects to the design map.

7. Remind participants what a full-grown version of the plant will look like, including how far its roots will spread. Participants should also keep in mind how plant communities in their area grow. For example, too much space between plants in an area with lush vegetation can serve as a

welcome mat for invasive species. Placing plants too close together, on the other hand, can cause unwanted competition for sunlight, nutrients and water.

8. Finally, participants should make a more or less permanent version of the design plan on the butcher paper. This can be done by taping shapes made from construction paper on the map or simply drawing directly on the map. It does not have to be an architect's masterpiece, but it should be a good plan to work from. Stay flexible; the finished site might not end up looking exactly like the original plan.

*Note: Be sure to incorporate appropriate accessibility features into the site design. Refer to the Wildlife Habitat Accessibility Guidelines on page p. 241. Review with the participants as needed.*

### For Younger Participants (Grades K-2):

1. Do Steps 1-5 as above, but in Step 2, have descriptions and/or pictures of different habitats available to help them in their "research."

2. Younger participants may not be able to relate to the abstract qualities of a design map (Step 6) alone. For a more active alternative, participants can decide on a set design and imitate it on the actual site





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with their bodies representing different elements.

For instance, someone can stand up with their arms outstretched to represent a tree, others can hold their hands down and stand as a shrub, and still others can crouch down and act as perennials. This way they can work out any problems that immediately stand out.

### Questions:

- What will go in your habitat site?
- What kind of habitat will it be?
- How big will it be, and where will it be located?

### Adaptations:

*Refer to general adaptations on pages 11-16.*

#### *Hearing Disabilities:*

- Clearly mark a perimeter boundary with flags or rope.
- Position yourself and the sign lan-

guage interpreter so the participants can see you for further directions or warnings while in the field.

- Encourage participants to actively participate in the discussion. Allow participants who have difficulty speaking to use the interpreter to present information to the group.

#### *Learning/Cognitive Disabilities:*

- Clearly mark a perimeter boundary with flags or rope.
- Have field guides with large colored pictures available. Have partners assist with identification as needed.
- Have pre-cut habitat element pieces available for participants who have difficulty writing or cutting.
- Complete the younger participant version of the activity as appropriate. Narrate the action as needed.

#### *Motor Disabilities:*

##### *Overall:*

- Select a site that is largely accessible.
- Post the butcher paper on the wall at appropriate wheelchair level so participants have access.

#### *For participants with limited muscle strength, coordination, or dexterity of the hands:*

- Have adaptive scissors available. If possible, have adaptive tape dispensers available.
- Have pre-cut habitat element

pieces available for participants who have difficulty writing or cutting.

#### *Visual Disabilities:*

##### *Overall:*

- Clearly mark a perimeter boundary with a guide string.
- Use vivid words to describe the area. Encourage partners to actively engage the participants in the exploration of the site; allow a few minutes for participants to explore and get a good feel for the overall area.
- Complete the younger participant version of the activity as appropriate. Narrate the action of the activity as needed.

#### *For participants with low vision:*

- Have the boundaries and permanent features drawn on the map in heavy black marker.
- Use larger pieces of construction paper in contrasting colors to tape onto the base map. Have thick black markers available to label the map in large print.

#### *For participants who are blind:*

- Outline the base map boundaries and permanent features in glue or string.
- Have participants glue items (e.g., cotton balls, film canisters, toilet paper rolls, etc.) on the map to indicate different elements.
- If possible, have a Braille labeler available to label the design map.

