



Constructing a Community

level 2 pre-visit activity for fall

Overview:	Students are introduced to (or review) the defining characteristics of our three general native communities: woodlands, wetlands, and prairies. They construct a picture of the community on which they will focus for the year by assembling a mural containing appropriate species and abiotic factors.
Location:	Classroom
Skills:	Comparing/contrasting, ordering/arranging, categorizing/classifying, concept-forming, decision-making, identifying attributes and components
Objectives:	Students will be able to list at least three community types native to Illinois and at least one defining characteristic of each community and will be able to list at least eight species native to the community under study.
State Goals:	12.B.1a, 12.B.2a, 12.B.2b, 26.B.1d, 26.B.2d
Materials:	Mural paper, tape, drawing supplies, pairs of organism images (optional)
Time:	45 minutes for most basic option; several class periods for most complex
Vocabulary:	community, ecosystem, woodland, wetland, prairie, abiotic, biotic
Copy Pages:	Suggested Pairs of Organisms

Background

See background section for “Which Niche Is This?” for information on ecosystems and habitats. See also the Illinois Natural History section of this manual for information on communities and the “Living Communities” section of *An Atlas of Biodiversity*, a publication of Chicago Wilderness.

Preparation

Copy and/or cut out images of organisms if using, prepare mural background; prepare presentation of community types of Illinois (optional)

Procedure

1. Introduce students to the native landscape of Illinois. This can be done through a presentation developed from the background and reference materials or through use of multi-media resources.

The video tape “Illinois: A Study in Biodiversity,” available from the Illinois Natural History Survey, provides an excellent overview.

2. Review and reinforce the broad community types of prairie, woodland, and wetland and their defining characteristics. It should be noted that the term “wetland” denotes a broad ecosystem type based on the presence of water at or near the surface all or at least part of the year and that it can be composed of a variety of communities including woodlands (swamps and flatwoods) and wet prairies.
3. If you are familiar with and/or can get information about your field site, identify for the students the types of communities that are found within the site. Introduce the specific community on which the class will focus its studies for the year.

4. Tell the students that they will be designing a mural for their community. They should begin by brainstorming the kind of information they should include. For example, they need to include the non-living factors of sunlight, air, water, and soil. What form do these take in their community? Is the water scarce, only visible in clouds, or available as surface water? Use this information to design the background for the mural, either as a group or in teams. (Note: to shorten the activity, provide the background components on which to place the living organisms. Another option is to fill this in after the living components have been attached to the paper.)
5. In the above step, students should have concluded that their mural should show the plants and animals that are characteristic of their community. Choose one of the following options for adding the plants and animals to your mural.
 - a. If you have decided to use pictures of organisms, hand them out now. One picture should be of an organism that clearly belongs in your community type while the other does not (see lists provided). Students must decide which one belongs and tape their selection to the mural, with pairs taking turns describing their choice to the class as they add their organism to the mural.
 - b. Or, give pairs of students the names of the organisms. They must then use reference materials to determine which belongs and to create an accurate image of their organism to be added to the mural.
 - c. Assign each student or pair of students a category, such as plants, insects, birds, mammals, reptiles, amphibians. They then research their category and create illustrations of one or more to be added to the mural. In this case they might also research where the organism is typically found in its community for a more accurate mural (i.e., does the animal spend most of its time underground, on the ground, on flowers, or in trees?). Students might be asked to give a brief oral report about their organism as they post its picture on the mural. *Note:* This option can be coordinated with the research project in “Who Goes There?”
6. Complete the posting of the pictures. Fill in any missing components or add multiples of species as needed (i.e., more oak trees, big bluestem). Challenge the students to compare their mural to their field study site on their trip.
7. Have children make a Mighty Acorns journal using several sheets of lined paper and a like amount of plain (ditto/printer) paper, folded in half width-wise. These journals will be used at each of the three field trips.
8. Following the trip ask the students if they think anything should be rearranged to reflect their field observations, and do so if the class agrees. Create a list of things missing from the mural based on their field observations and add these as time permits.

Assessment

1. Check the students’ final mural to be sure that they have included the key characteristics of their community and that they have selected appropriate species to be placed in their community.
2. Remove one or more things from the mural and ask students to identify the missing components of their community.
3. Ask the students to list at least three community types native to Illinois and their key characteristics. Ask students to list at least eight species of plants or animals native to the community they are studying.

Extensions

Save the mural and update it based on each season’s field trip observations.

Suggested Pairs of Organisms

Woodland

white oak tree/spruce
shagbark hickory/willow tree
wild plum/cordgrass
white trillium/duckweed
scarlet tanager/meadowlark
red-headed
woodpecker/Canada goose
fox squirrel/13-lined ground
squirrel
Cooper's hawk/marsh hawk
blue-spotted
salamander/horned toad
gray tree frog/bull frog
gray fox/mink
white-tailed deer/bison
short-tailed shrew/prairie vole
walking stick/backswimmer
June bug/water boatman
shelf fungus/earthstar fungus

Wetland

cattail/cactus
muskrat/prairie dog
willow tree/spruce
dragonfly/mound ant
bullfrog/horned toad
arrowhead/shooting star
marsh marigold/switch grass
painted turtle/tortoise
great blue heron/roadrunner
coot/prairie chicken
blue flag iris/prairie trillium
red winged blackbird/downy
woodpecker
duckweed/little bluestem
mink/badger
June bug/water boatman
northern water snake/bull
snake
crayfish/scorpion

Prairie

big bluestem grass/bullrush
Indian grass/cattail
northern prairie
dropseed/Kentucky bluegrass
prairie dock/burdock
compass plant/wood violet
yellow headed
coneflower/yellow water lily
bobolink/downy woodpecker
grasshopper sparrow/mud-hen
northern harrier/bald eagle
bison/reindeer
smooth green snake/water
snake
bumblebee/mayfly
badger/muskrat
robber fly/backswimmer
American toad/bull frog
coyote/river otter

