

HABITAT SIMILARITIES & DIFFERENCES

Students compare similarities and differences in habitats.

GRADE

2nd

NEXT GENERATION

LS4-1

TIME

15 minutes Session 1

40 minutes Session 2

LEARNING OBJECTIVES

- Observe how habitat features in nature compare with habitat features in a salmon tank.
- Understand how plants and animals live in different conditions.
- Cultivate observation skills.
- Gain experience working in teams.

PREPARATION

1. Make color copies of the attached meadow and wetland posters to show on your overhead project or pull them up to be ready to show off the website.
2. Set aside *Salmon Stream* to read to students.
3. Cut cardboard strips and assemble into frames with a 15" window. Make one frame for each team of students you will have.
4. Set aside two magnifying glasses, one clipboard, and one pencil per team.
5. Make one copy per team of the attached habitat observation worksheet.
6. Survey your schoolyard to understand the kinds of habitats (bright sun, under a bush, trampled by many feet, next to the building, etc.) your students are likely to find.
7. Recruit as many adult volunteers or older students as you see fit to help in the schoolyard and brief them on the activity.

WHAT TO DO

Session One

1. Read and show the beginning of *Salmon Stream*, to the point that fry are ready to leave the stream (unnumbered p. 13). Prompt students to call out features in the book's illustrations having to do with shade for cooling the water, clean water, oxygen, food, and protection.
2. Take students to the tank and review basic needs as you point out how they are being met, including
 - cold water (chiller)
 - clean water (filters and net to remove any debris)
 - oxygen (aerator tubes)
 - food (whatever fish food is currently being fed)
 - protection (lid on tank)
3. Return to the classroom and prompt students to call out similarities and differences between a natural stream and the tank as you list them on the board.

Session Two

1. Show and discuss the meadow and wetland habitat images, looking for number and variety of living things. Emphasize that plants and animals in such habitats vary by climate; what we find here may not be the same as what students in other parts of the country would find or what we would find at other times of year.
2. Use a frame to demonstrate how student teams will examine a 15” square of habitat in the schoolyard, looking for different plants, animals, soil conditions, and light conditions.
3. Review the worksheet so students understand what information they will need to collect.
4. Divide into teams of four and assign responsibilities as follows:
 - a recorder; equip with a clipboard, pencil, and worksheet.
 - a frame holder; equip with a frame.
 - two investigators; equip with magnifying glasses.
5. Introduce each team to its helper.
6. Tell students that each team will select a location in the schoolyard to examine. Assign each team a type of habitat. If needed, assign more than one team to a type of habitat. Depending on your schoolyard, habitats might be
 - bright sun
 - deep shade
 - under a bush
 - trampled pathway or play area
 - next to a building, solid fence, or large rock
7. Take students into the schoolyard and demonstrate placement of the frame.
8. Direct each team to find its type of habitat, place the frame to define the study area, examine the area, and record findings. Dispatch helpers to assist as necessary to enable students to succeed.
9. Call time (15-20 minutes) and return to the classroom.
10. Ask each recorder to summarize team findings.
11. Prompt students to call out similarities and differences among the habitats and list them on the board.

Meadow

zebra swallowtail butterfly

ruby-throated hummingbird

goldfinch

chrysalis

dragonfly

fireweed

bumblebee

Monarch butterfly

woolly bear caterpillar

ladybug

monarch egg

Queen Anne's lace

goldenrod gall

milkweed

monarch caterpillar

spider

mushrooms

cow vetch

cricket

bunnies

spittle bug

deer mouse

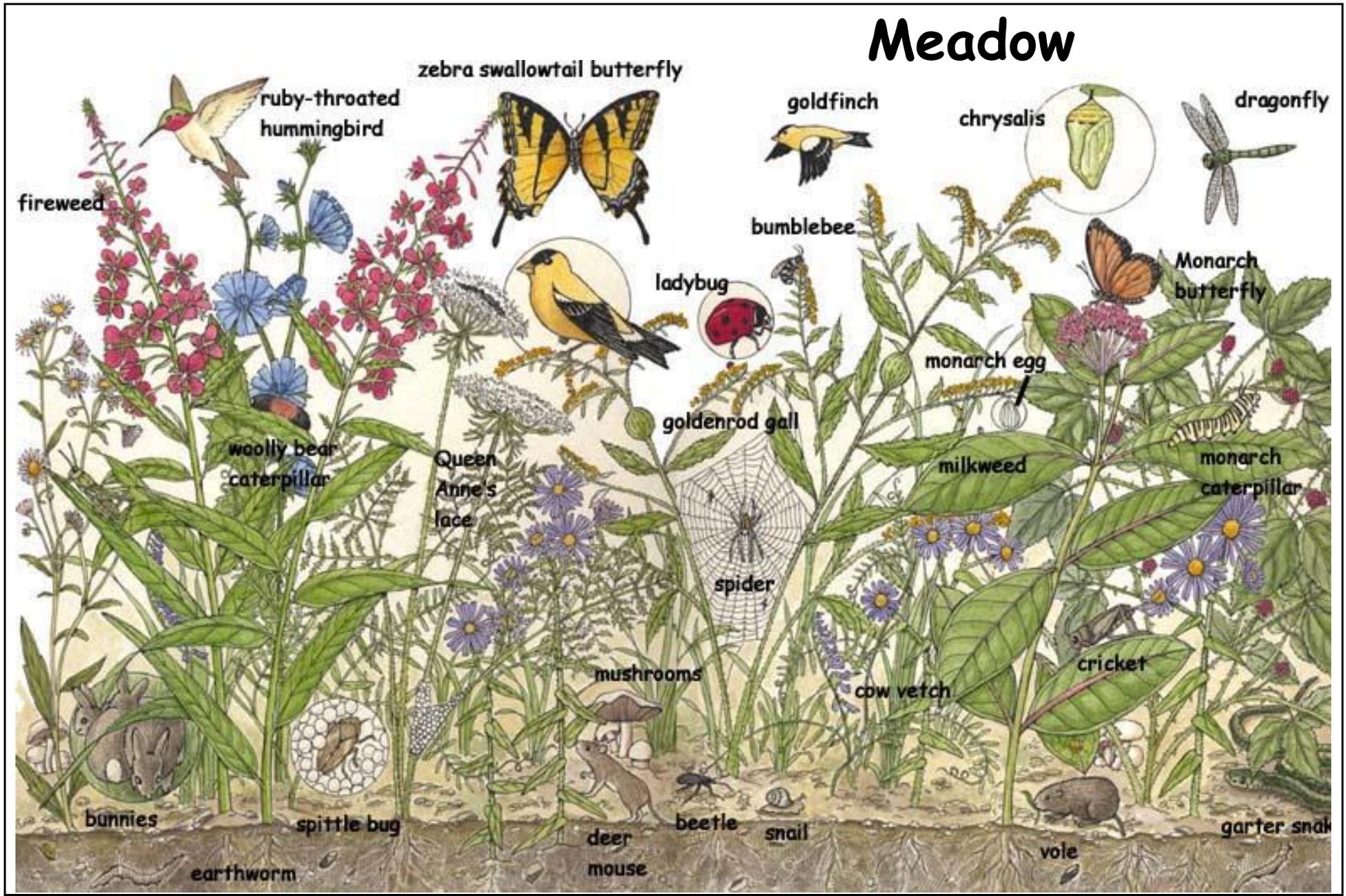
beetle

snail

vole

garter snake

earthworm



Wetland

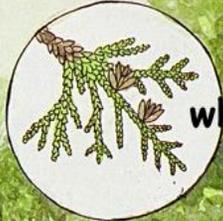
osprey



tamarack



white cedar



dragonfly



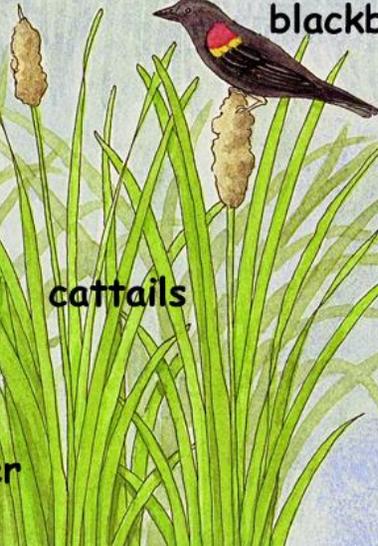
red-winged blackbird



jack-in-the-pulpit



cattails



vole



sundew



spring peeper



blue-winged teal



pitcher plant



HABITAT OBSERVATION WORKSHEET



WHERE IS YOUR SQUARE OF HABITAT?

CIRCLE THE CONDITIONS YOU FIND IN YOUR SQUARE.

Sunny Shady Both sun & shade Other _____

Dry soil Damp/wet soil No soil Other _____

CIRCLE THE THINGS YOU FIND IN YOUR SQUARE.

Rocks/gravel Grass Other plants; about how many different kinds? _____

Crawling bugs Dead bugs Flying bugs Spider web Trash

Other _____

SKETCH AND LABEL THINGS IN YOUR SQUARE OF HABITAT.

A large, empty square box with a black border, intended for the student to draw and label the contents of their habitat square.

TEAM MEMBERS _____