

Lofty, Level, and Lumpy

Lesson Description

Students learn about habitats and the characteristic animals and plants of those habitats.

Subjects

Art, Geography, Language Arts, Science, Social Studies

Teacher Background

There are five predominant *habitats* of the continental United States: *deserts*, *forests*, *mountains*, *prairies*, and *wetlands*. Each habitat supports a unique community of plants and animals, and has characteristic *landforms* and soil types.

Desert habitats are dry, hot, and have sparse vegetation. Desert animals include lizards, snakes, small birds, small mammals, and other animals adapted to dry, hot climates. Cacti and small wildflowers are typically found in deserts. Second, forests receive a medium amount of precipitation and are more temperate than deserts. A forest habitat is generally covered with dense vegetation, including trees, shrubs, and woody plants, that shade the land from the Sun. Many small and large mammals, birds, reptiles, amphibians, and insects can be found in the forest. The third habitat, mountains, are high-elevation areas often with rocky soil and steep slopes. Typical mountain dwellers include a variety of birds, small mammals, reptiles,

Time

Prep: 30 minutes

Activities: 1 ¾ hours
(not including Extensions)



Topic: habitats
Go to: www.scilinks.org
Code: DIG04



Student Objectives

Students will be able to:

- define habitats and landforms;
- compare habitats; and
- recognize that soils sustain different plant and animal life.

and insects. Trees can be found on mountains up to a certain elevation; only short woody plants and grasses grow at higher altitudes. Fourth, prairies are characterized by rolling hills or level land with a medium amount of rainfall. Prairie animals include birds, small mammals, reptiles, amphibians, and insects. Prairies normally consist of tall and short grasses, wildflowers, and few trees. The last main habitat, wetlands, are marshy, humid areas. Wetlands animals—such as waterfowl, wading birds, fish, and amphibians—live in or near the water. Wetland plants—such as cattails and mangrove trees—are also adapted to the wet environment.

Students will discover the properties of each habitat, describe what each region is like, and take an imaginary vacation in the region of their choice. A particular focus of this activity is differences in plant and animal life in the five habitats, and the lesson will demonstrate that plants and animals have features that help them live in different habitats.

Materials

For the Class

- United States or world map
- Pictures of deserts, forests, mountains, prairies, wetlands, animals, and plants
- Index cards
- Glue
- Scissors
- Poster paper
- Marker
- Tape

Learning Cycle

Perception: 15 minutes

Prep Photocopy or cut out pictures of deserts, forests, mountains, prairies, and wetlands, and familiar plants and animals from textbooks, encyclopedias, calendars, and magazines such as *National Geographic*, *Outside*, *Audubon*, and *Sierra Club*. Other good sources of habitat pictures are the World Wide Web and educational CD-ROMs. Include pictures of your local area. Paste the pictures onto index cards.

- 1 Help students understand what a habitat is.



- 2 Discuss the five main habitats of the United States. Use the pictures to discuss traits about habitats; for example, the desert is dry and hot, the forest is shady and has a lot of trees, the prairie is sunny and is covered with grass, the mountains are tall and rocky, and the wetlands are wet, humid, and swampy.
- 3 Ask students to name and describe the local habitat, including characteristic animals, plants, landforms, and soil types.
- 4 Make a summary chart, concept map, or word web with words and phrases about your local habitat.

Materials Cont'd.

For Each Student Group

- Tape
- Marker
- Index cards from Perception section
- Drawing paper
- Crayons, colored pencils, or markers
- Scissors
- Glue
- Student Handouts 4A–4G

Exploration: 45 minutes

Prep Create a blank concept map for each habitat (desert, forest, mountain, prairie, and wetlands) on separate pieces of poster paper. Each concept map should have space to list animals, plants, soil type, temperature, climate, landforms, and locations. Tape these maps on the wall.

Use the index cards from the Perception section, and separate the cards by habitat. Many of the animals and plants can fit into separate habitats, but each habitat should have an equal number of cards.

- 1 Break students into five groups and assign each group to a habitat concept map. Distribute to each group a marker, index cards, and tape. Choose one captain, one recorder, one speaker, and at least one traveler for each group.
- 2 The captain decides how to distribute the group's index cards and tapes them on to the concept map. For instance, the captain may decide that a card with a mountain belongs near the word "landform"



on the concept map, and a card with a deer belongs near the word “animal.”

- 3** Guide travelers one group at a time, to the world or country map to determine the locations of their habitats. Travelers should also brainstorm animals, plants, soil types, temperatures, climates, and locations for the group’s habitat.
- 4** The recorder writes the travelers’ observations on the concept map.
- 5** Once the groups have completed their concept maps, the speakers will take the class on imaginary vacations to the habitat by presenting their maps. An example of a speaker’s tour is: “I’ll be your tour guide today in the desert habitat. We will be visiting the Southern Arizona area where you will see animals such as jackrabbits, mice, lizards, and rattlesnakes, plants such as cacti, and sandy soils. You won’t see many people since the desert does not have a lot of inhabitants. The temperature is hot and dry, so be sure to dress in shorts and a t-shirt, but wear sunscreen because the Sun is strong. Bring a jacket since the nights are cool.”

Application: 30 minutes

Prep Make large photocopies of Student Handouts 4A–E, which represent the habitats your class has discussed.

- 1** Distribute one large habitat picture to each group. Also distribute to each group one copy (actual size) of each of the three pages in Student Handouts 4F and the two pages in 4G, which depict animals and plants. (Note that the drawings are not to scale.)
- 2** Assign two or three students in each group to color in the habitat picture.



- 3 Meanwhile, other group members cut out the animals and plants from Handouts 4F and 4G that belong in their habitat. Students then color in those animals and plants and paste them in an appropriate space on the habitat picture. If you are working with younger learners, you may wish to draw dotted outlines in which to paste each animal and plant picture on the habitat. Draw a line under the dotted outlines where students can label the pictures.
- 4 You can leave out the habitats that are not appropriate for your region. If your region is very different than any of the ones pictured on the handouts, invite groups to compare the habitat pictured with the local region, or draw their own pictures.
- 5 Ask students to label each animal and plant, and give the picture a title that includes the name of the habitat. You may wish to provide younger students with a vocabulary list to use when labeling the animals, plants, and habitats.
- 6 Many of the animals and plants can be found in more than one habitat. Discuss this with students so they understand that there are several possible correct pictures to create.

Evaluation: 15 minutes

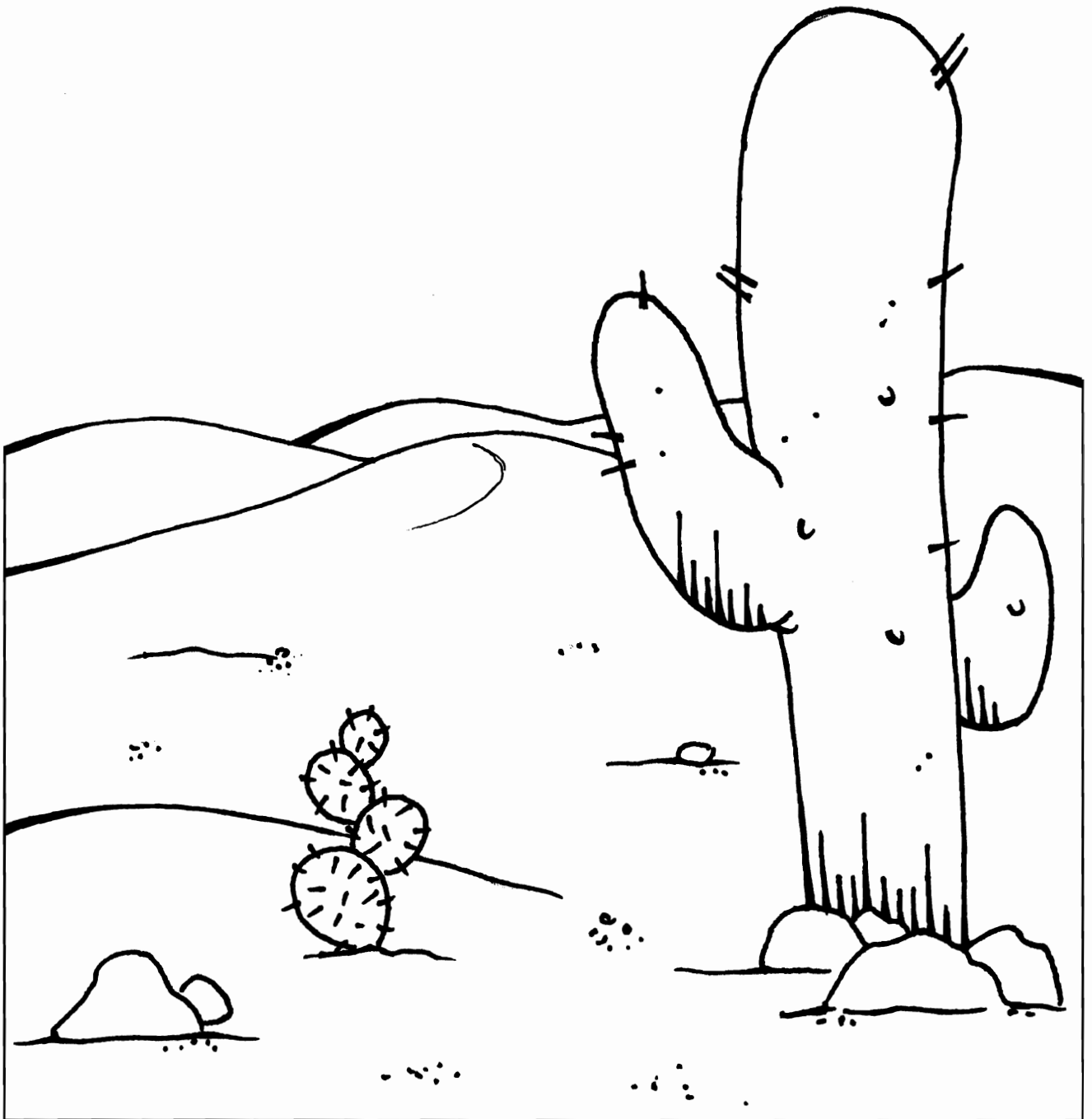
Students should be able to explain what a habitat is, and describe how the local habitat differs—or is the same as—the habitat covered by their group. Students should be able to explain the clues they used to determine why each animal and plant from the handouts belonged in their habitat. Ask each student to share one fact they learned about the local habitat that they didn't know before this lesson.



Extensions: 30 minutes each

- Students may vote on their favorite habitat and make a model of it in the classroom, or decorate a bulletin board. For example, to create a “mountain” environment, students may draw mountains, trees, a lake or stream, rocks, and birds, or use family pictures from a trip to the mountains to share with class members.
- Ask students to name and locate on the map some of the places they have traveled. Have students discuss what those places were like. Guide the discussion to include the types of habitats and descriptions of the land or soil.
- If a student’s family has photographic slides from a trip, ask parents to show the slides to class, and discuss the habitats, plants, and animals shown.
- To integrate the concepts to language arts and reading, have your students write stories or poems about local habitats.
- Investigate place names. You might focus on multicultural place names in the United States. For example, have students brainstorm Native American names given to places in New England (e.g., “Connecticut,” “Massachusetts,” and “Passaic River”) or Spanish names in the Southwest (e.g., “Rio Grande River” and “Los Angeles”). Guide your students to consider what place names reveal about a location; for instance, think about the physical differences between Crater Lake, Lake Superior, and Great Salt Lake.

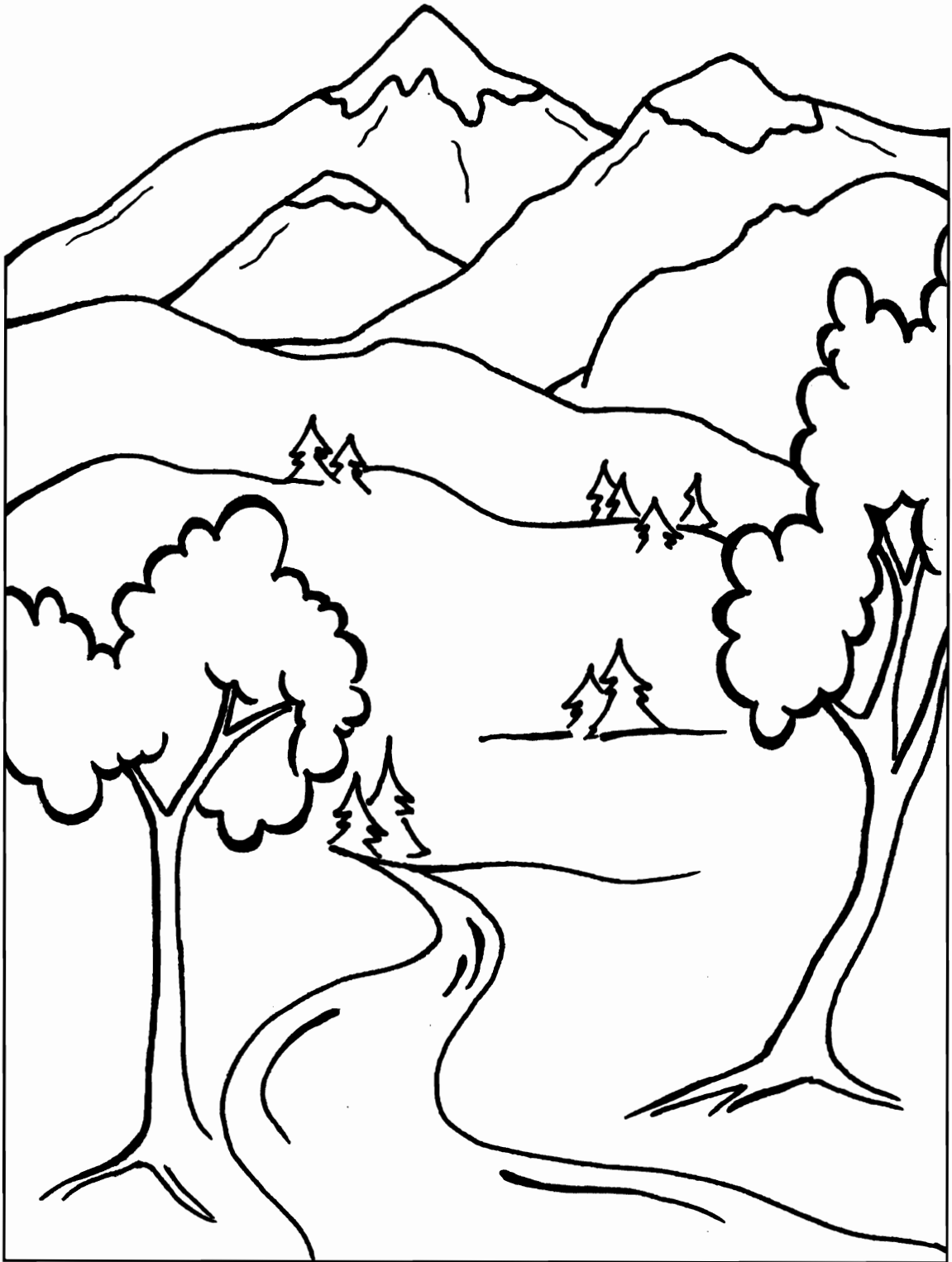
Name: _____



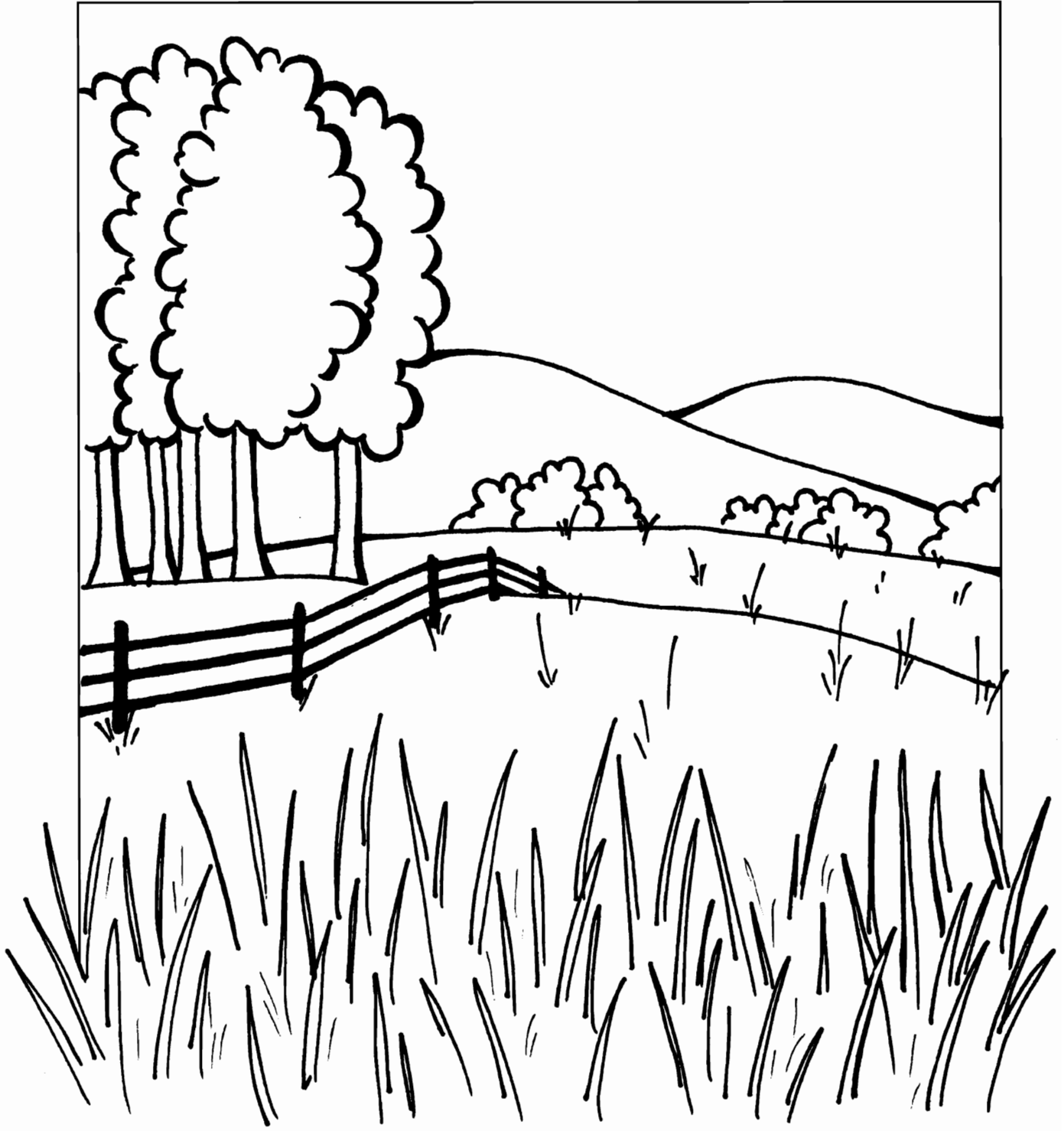
Name: _____



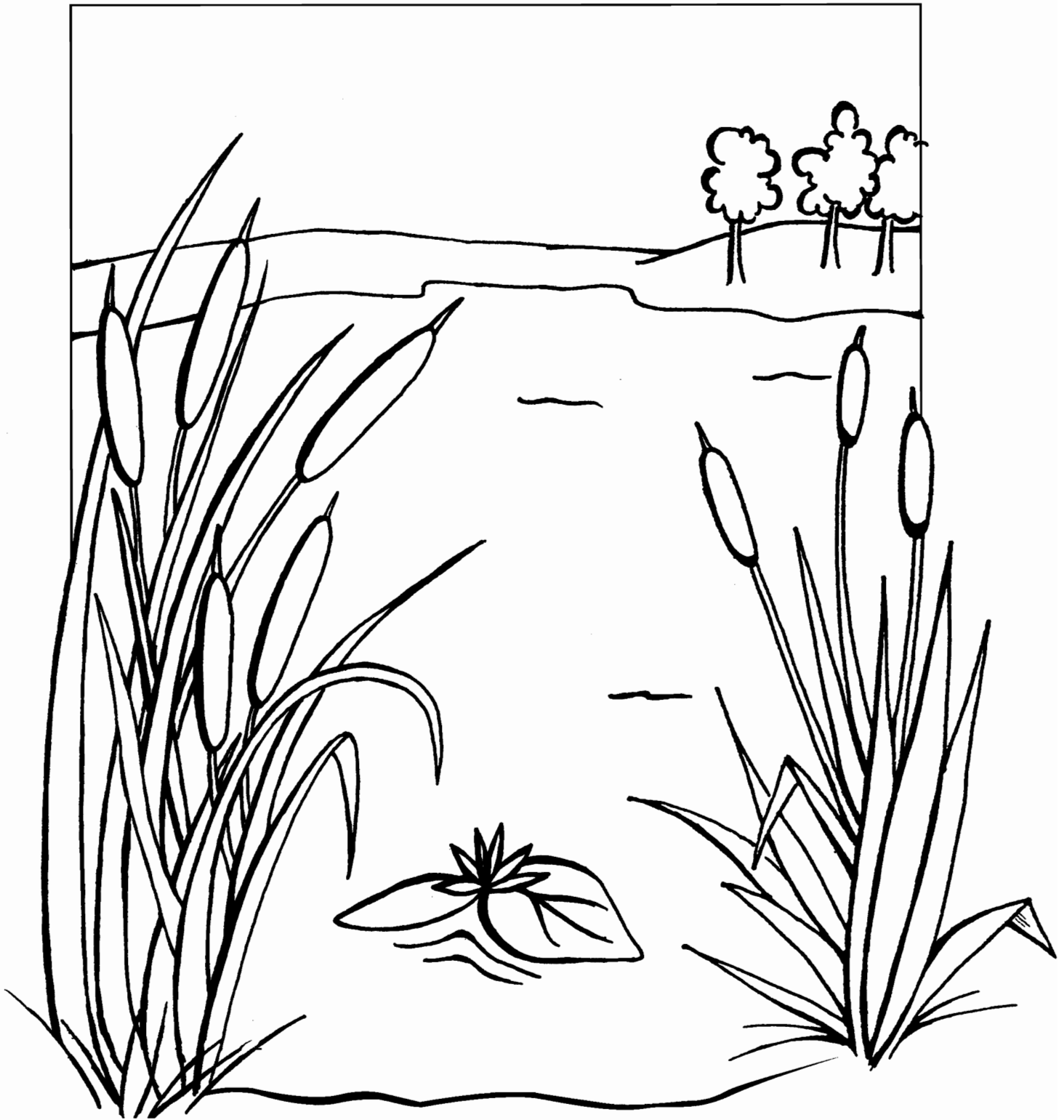
Name: _____



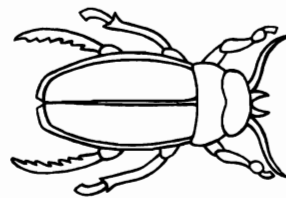
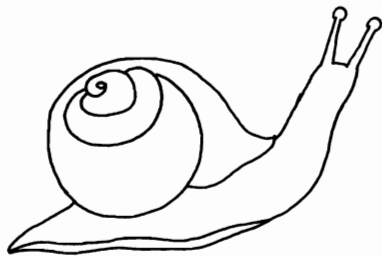
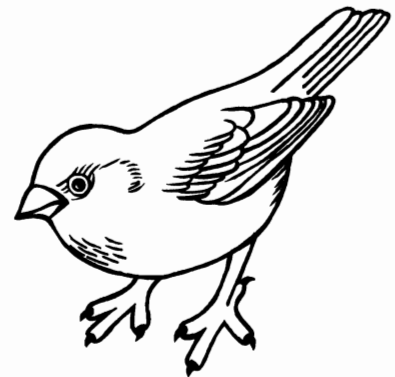
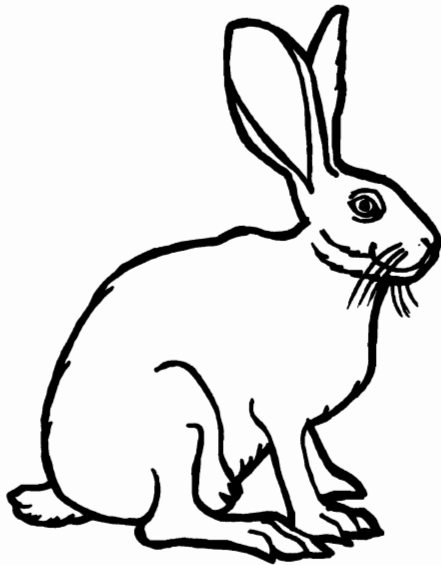
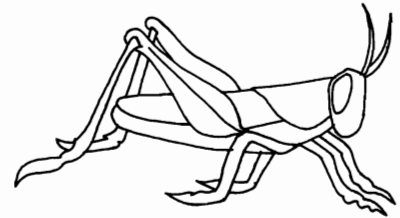
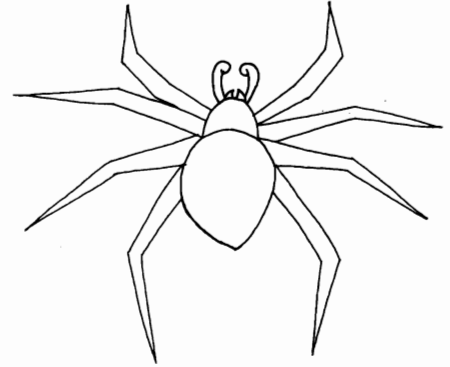
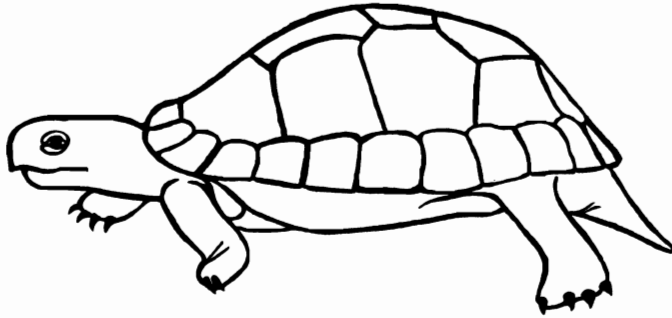
Name: _____

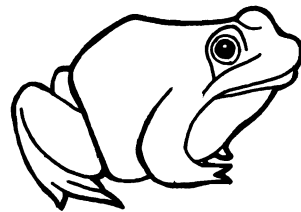
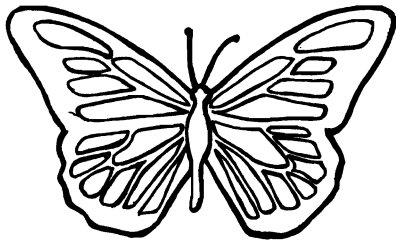
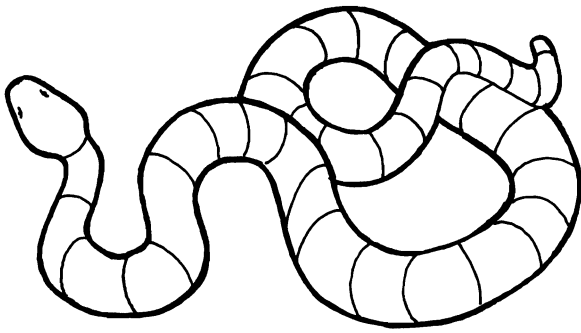
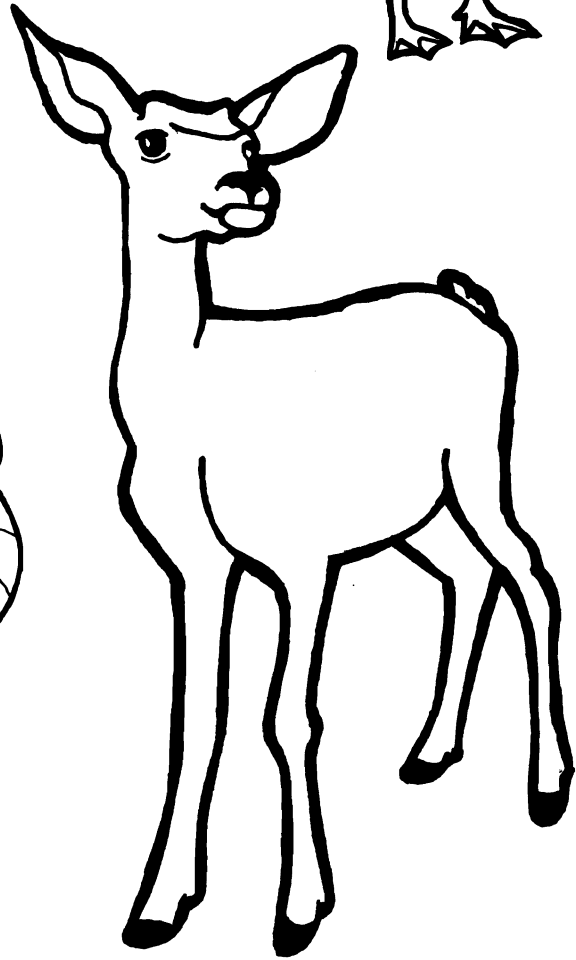
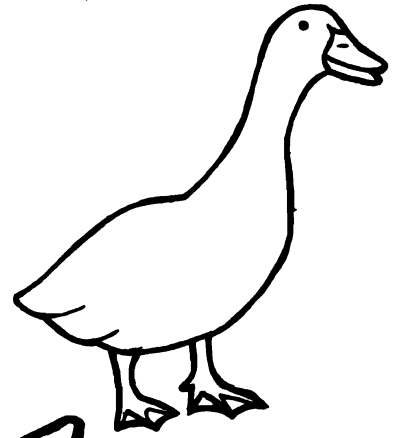
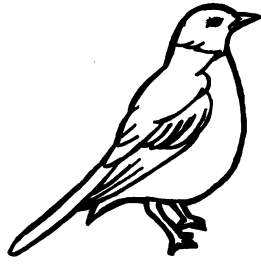
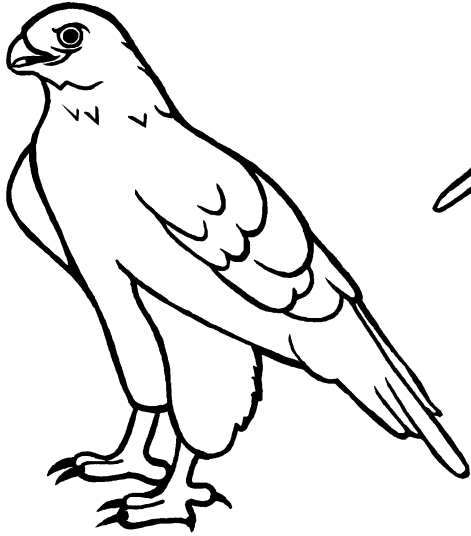


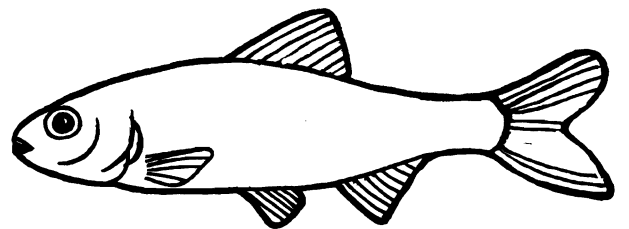
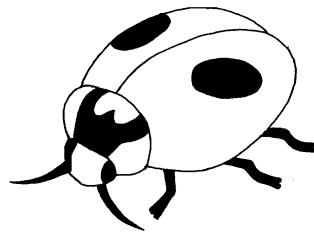
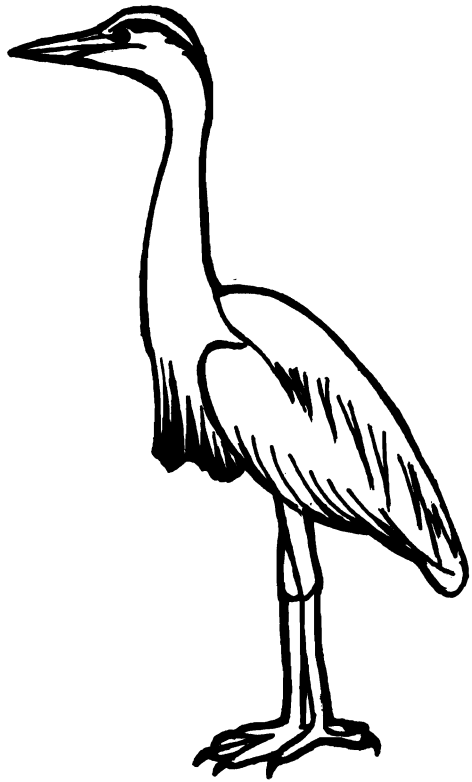
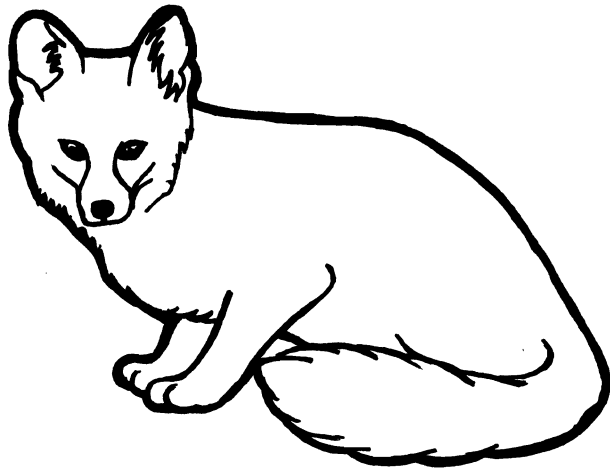
Name: _____



Name: _____







Name: _____

