



DURATION*

Pre-visit: 20-30 minutes
 Visit: 45 minutes
 Post-visit: 3-4 one hour sessions
 *Actual times can vary

LOCATIONS

North American Mammal Hall
 African Mammal Hall
 Reframing Dioramas: The Art of Preserving
 Wilderness
 Bird Hall
 Becoming LA
 Your Classroom

SUPPLIES

- [Pre-visit & Post-visit slides](#)
- [Habitats of North America](#)
- [Habitats of Africa](#)
- [Student Visit Social Narrative](#)
- Worksheets
- Clipboards
- Pencils

DIORAMA SUPPLIES

- Copies of animal cut-outs
- Clay or model Magic
- Glue
- Scissors
- Construction paper (variety of colors)
- White cardstock paper
- Natural materials (leaves, rocks, etc.)
- Markers/crayons/colored pencils
- Felt pieces
- Recycled materials
- Paint & paint brushes
- Shoebox, cereal box, etc.

STANDARDS

SEPs
 1 (Asking questions and defining problems)
 2 (Developing and using models)

NGSS
 LS2.A, LS2.B, LS4.C, ESS2.D, ESS3.A, ESS3.C

CCC
 System and System Models
 Scale, Proportion & Quantity

VOCABULARY

- Adaptations
- Anatomy
- Diorama
- Ecology
- Ecosystem
- Habitat
- Flora
- Fauna
- Traits
- Taxidermy

Overview

Let's explore the relationship between dioramas, taxidermy, science, and art. Museums utilize dioramas and taxidermy to help people learn more about different habitats, species, and ecosystems. Follow along with this lesson to immerse you and your students in the behind-the-scenes work that preserves the natural world while making it come to life through dioramas.

Concepts

- Dioramas utilize taxidermy to build three-dimensional scenes that immerse viewers into a realistic and detailed model
- Dioramas can help us visualize environmental changes happening in our natural world
- Taxidermy and dioramas combine art and science to preserve animals and their habitats with lifelike effect
- Taxidermy plays a significant role in education and research by preserving species that may be rare, hard to access, or extinct
- Dioramas tell stories about wildlife in their natural habitats

Objectives

- Learn about dioramas and why they are important
- Explore the Natural History Museum of LA County's diorama and taxidermy spaces (virtually or in-person on a field trip)
- Students will build their own dioramas incorporating what they have learned about different habitats, species, and ecosystem relationships

Outline

1. Students will learn what a diorama is, where they can find them, what is in them and why they are important.
2. Students will understand what taxidermists do.
3. Students will practice skills that taxidermists use for their work, ie. sculpting, drawing and/or measuring.
4. Students will explore the Museum making observations about the habitat dioramas (*optional field trip activity*).
5. Students will do research on an animal and create their own habitat dioramas to incorporate what they have learned about their selected animal and dioramas.

Pre-visit

- Use the [Pre-visit & Post-visit slides](#) or create your own to introduce the idea of dioramas and taxidermy to your class, what they are and why they are important.
 - Consider having a content warning conversation with the class. Taxidermy may touch on sensitive subjects regarding death and animals.
- You can pair this lesson with content your students are already learning in class. This lesson connects to many science topics including ecosystems, habitats, conservation, art and even math! Find what works for your classroom.
- Use the accompanying worksheets (or create your own!) to practice skills such as using reference photos for art, sketching illustrations for your diorama, making observations and more!
- Before visiting the museum use the [NHM School Visit Social Narrative](#) to prepare your students for what to expect on their visit.
 - See the “Other Considerations” section on page 3 for a virtual field trip option.

Visit

- If you are visiting the Museum, use the Museum map to preview where your class will see dioramas and examples of taxidermy throughout the exhibition halls. See our labeled map on *page 9*.
- Use your field trip as a time for students to draw inspiration from the habitat dioramas in preparation for creating dioramas in the classroom. Take photos of your trip for students to review post-trip.
- You may choose to use the worksheets in the “Visit” section (*pg. 9-12*) of this lesson plan to guide your students during their visit or create your own.

Post-visit

- If you visited the Museum on a field trip or went on a virtual trip, reflect with the class.
 - Potential ideas for reflection and discussion:
 - Ask questions about the diversity of habitats or ecosystems they saw. What habitats were represented? What did they notice about a specific diorama or overall? *Additional discussion questions can be found in the Pre-visit & Post-visit slides.*
 - Discuss all the things that make up a habitat or an ecosystem for an animal and brainstorm what they will include in their diorama. You can also use photos from your trip to look back on.
- Have students build their own habitat dioramas inspired by NHMLA! You can use the resources provided in this packet in addition to the Pre-visit & Post-visit slides.
 - This can be an in-class project made over several sessions or a project given for at-home.
 - In class be sure to model each step of the diorama building process with your students.

Building a Diorama

1. Have students choose their focal animal. Use the *Brainstorming My Diorama* and *My Diorama Planner* (*pg. 14 & 15*) graphic organizers to help them plan different elements and supplies that need to be included in their diorama.
2. Research the backdrop, flora (plants), and fauna (animals) that will be part of each child’s particular habitat. Help each student decide what materials will be needed to construct the habitat. Use the Pre-visit & Post-visit slides to find examples for material options for each step.
3. Gather materials for:
 - a. Diorama exterior (shoeboxes, delivery boxes, etc.)
 - b. Diorama backdrop (crayons, paper, colored pencils, etc.)
 - c. Diorama flora (real leaves, twigs, rocks, pictures of plants, etc.)
 - d. Diorama fauna (toy animals, animal coloring pages printed on cardstock, magazine cutouts, animal stickers, etc).
4. Model on your own diorama how to create each step for your students, background, environment and animals.
5. Have students make their diorama and break each step into a separate in-class session (if working in class only).
6. Include a label/sign (e.g. on an index card), describing the details of the habitat diorama, similar to those labels seen inside of a museum.

Other Considerations

- Refer to the *Build Your Own Diorama* portion of the [Pre-visit & Post-visit slides](#) for alternative materials that are accessible and low-to-no cost for building your diorama. Be creative and resourceful by utilizing the coloring sheets provided, having students draw their flora and fauna on blank paper, or asking parents and students to bring in old magazines, toilet paper rolls and more. Encourage students to make their diorama as unique as they are!
- If a visit to a museum with dioramas is not possible for you and your students, use images online in place of a visit to the Museum. Our [Habitats of North America](#) or [Habitats of Africa](#) photo galleries showcase the two mammal halls and can be accessed for free.

Variation and Extensions

Younger ages (Grade K - 2nd)

- Have students select only one focal animal and their habitat. Use informational texts, worksheets and videos to extend their learning about their selected animal.
- Consider your students fine motor skills and provide supplies that are easy for them to work with or prep supplies in advance.
- Go on a nature walk at school, in the Nature Gardens at the Museum, or virtually online and discuss the different flora and fauna that you observe in this habitat.
- Use habitat coloring pages like the ones provided in this resource to extend their learning about habitats and the plants and animals in different ecosystems.
- Put a diorama on the page! Have students cut, paste and color plants, animals, and more to create a 2D ecosystem scene that they can label.

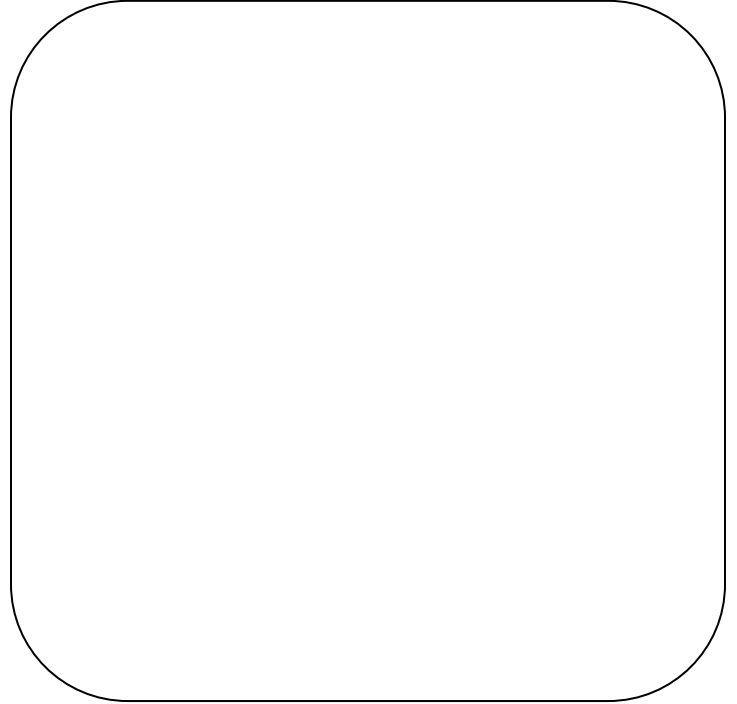
Middle and High School ages (Grade 6-12)

- Older students can start more broadly by selecting an ecosystem/habitat to model in their diorama and can include a variety of plants, animals and features.
- Use dioramas to explore more complex ecological topics such as:
 - Trophic levels and energy flow in an ecosystem.
 - Food chains or webs; ie producers, consumers and decomposers etc.
 - Key stone species relationships
 - Symbiotic relationships
 - Changing climate conditions such as floods, droughts, or seasonal changes
- Turn diorama building into a group project.
 - Groups can create dioramas of the same place across time. Example: prehistoric LA, modern LA, research to create a future LA scene. Have students present to the class as a group.
 - Students can focus on human impacts. For example, students can create dioramas that show the progression of new growth in a forest burn area or progressive urbanization in natural spaces.
- Have students participate in oral presentations about their dioramas connecting to topics discussed in class.
- Students can research career pathways related to or requiring diorama building (Taxidermists, engineers, architects, etc.).
- Artists are integrating science and contemporary art to create new reimagined renditions of dioramas. Have students experiment by creating their own unique take on dioramas.
 - Read more about three of our diorama bays in our newest exhibition [Reframing Dioramas](#) have been reimagined by local artists:
 - [A Peculiar Garden](#)
 - [Special Species](#)
 - [Ever-Changing Flow](#)

Pre-Visit

Practice your drawing skills!

Taxidermists need to look at pictures of animals in order to create lifelike taxidermy. Use the picture of the animal below to draw a detailed illustration.

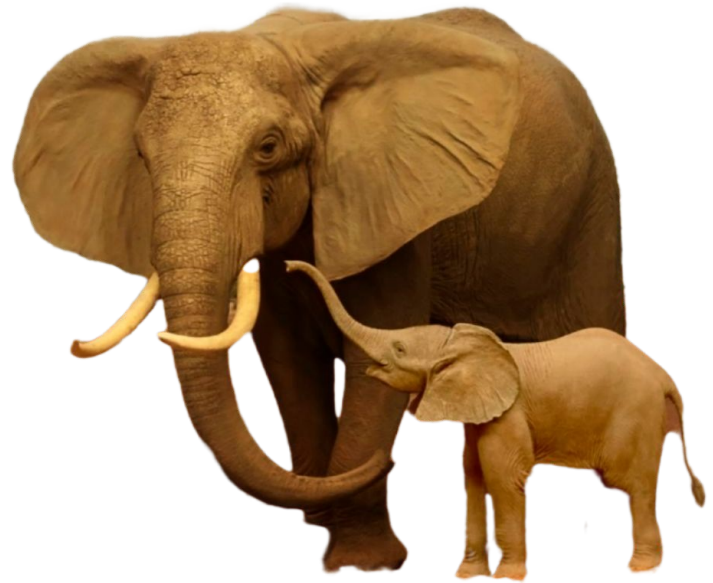


Find a picture of a living animal in their habitat. Use the space below to draw the animal in the picture and their environment with as much detail as you can. Include everything you can see in your drawing!



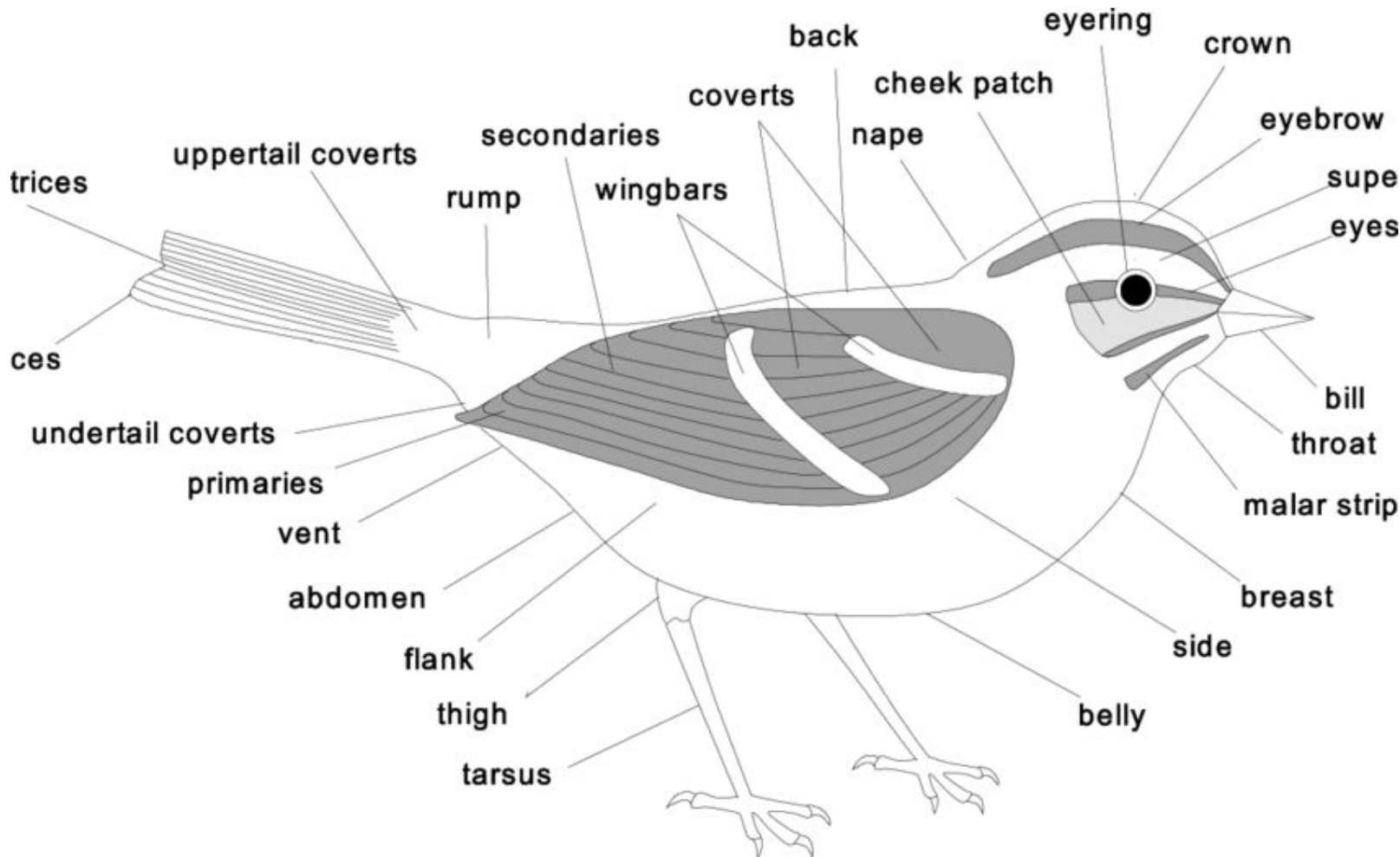
Practice your sculpting skills!

Taxidermists need to look at pictures of animals in order to create lifelike taxidermy. Use the pictures of the animals below or choose your own to create a detailed sculpture with clay or other modeling material.

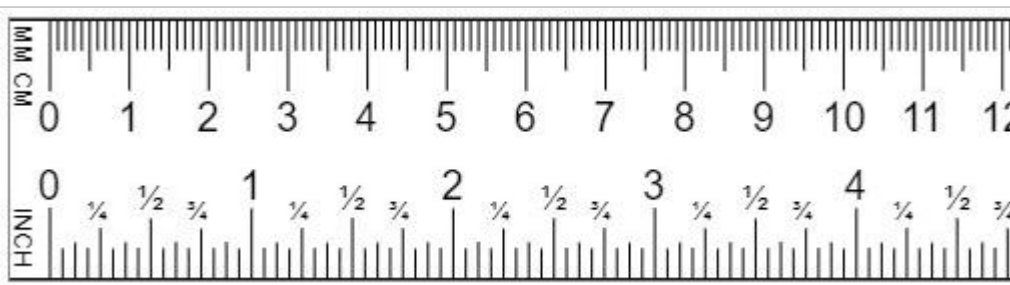


Practice your measuring skills!

Taxidermists take precise measurements of animals in order to create lifelike taxidermy. Cut out the ruler below and practice taking measurements of the bird specimen below.



- How many inches (in) is the tarsus or ankle? _____
- How many centimeters (cm) is the bill or beak? _____
- Measure the bird from head to tail. _____

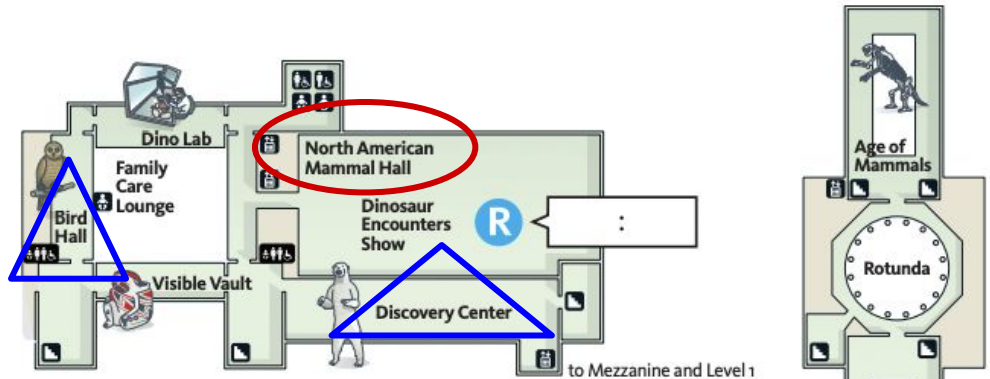


Visit

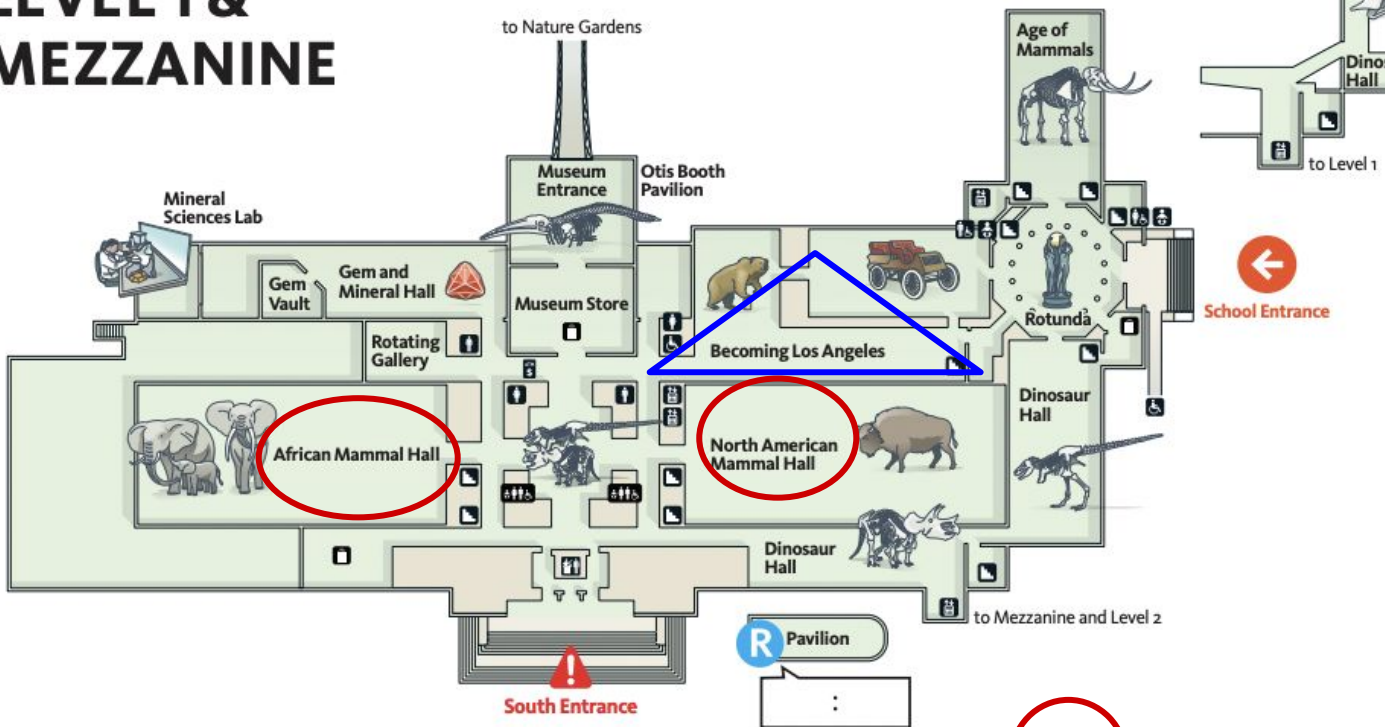
Museum Map

Check out the map below and note the exhibition halls where you may see taxidermied animals.

LEVEL 2



LEVEL 1 & MEZZANINE



LEVEL G



Diorama Exploration and Teachable Moments

Engage your students by asking the following questions to your students while looking at the dioramas:

- What do you notice is happening in this diorama? What do you see that makes you say that?
- What animals do you see in the diorama? What types of plants do you see?
- What kind of environment might this be? What do you see that makes you say that?
- What time of day/year is it? How can you tell?
- What traits does the animal have that would help this animal survive in this habitat?
- What might you hear or smell if you were standing in the location this diorama is showing?
- How many animals can you find in this diorama? How might they interact with each other?
- After observing several dioramas, what elements seem to be a theme throughout the different habitats?

Dioramas at NHMLA - Observations

Use the following sheet to write and draw observation on one diorama you observed.

Diorama observed: _____

Draw the diorama:



QUESTIONS

- What do you notice is happening in the diorama?
- What time of day/year is it? What do you see that makes you say that?
- What features or traits do the animals have that would be helpful in this habitat?
- What might you hear or smell if you were standing in the environment is in this diorama?
- What kinds of animals and plants do you see in this diorama?

Observations:

Dioramas at NHMLA - Looking at Labels!

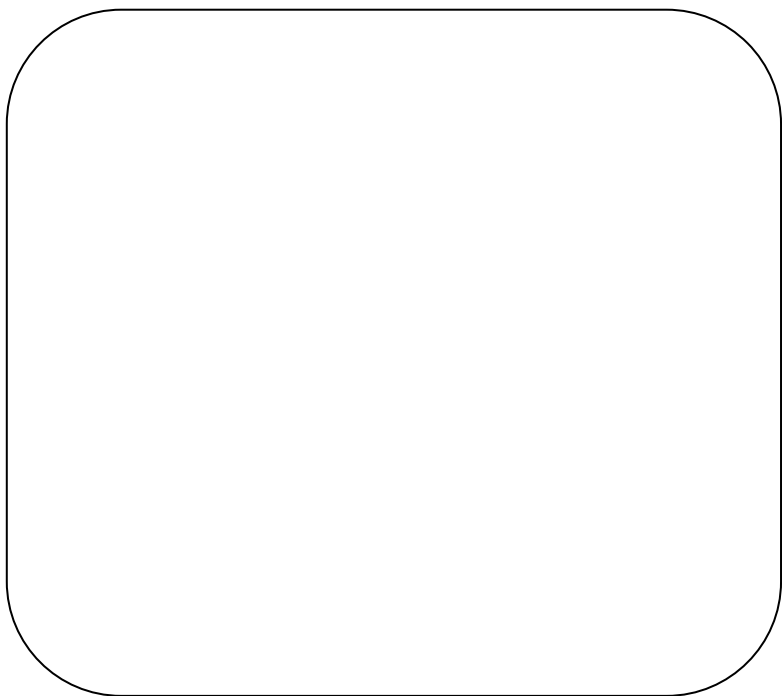
Observe a diorama and its label. Answer the question prompts after observing a diorama and reading its label. Next, find another diorama or a picture of a habitat online of your choice and write your own label describing the scene. Be sure to include at least two facts.

Diorama observed: _____

QUESTION PROMPTS

- What did you learn from the diorama label?
- Can you find any descriptive words or **adjectives** in the label that help describe the diorama scene? How do these words help you understand what's happening in the exhibit?
- If you could add to the label to make it more informative or interesting, what would you add?

Draw the habitat you observed:



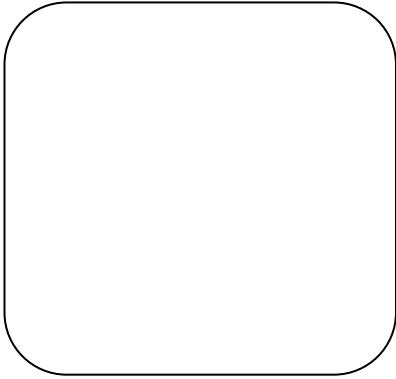
Write a description for the habitat you observed:

Post-Visit

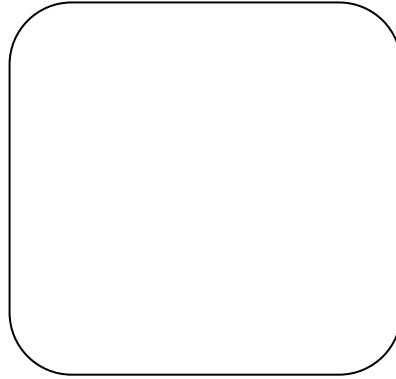
Brainstorming My Diorama

Think about the animals and plants in your diorama.
Draw or write in each box what you might include.

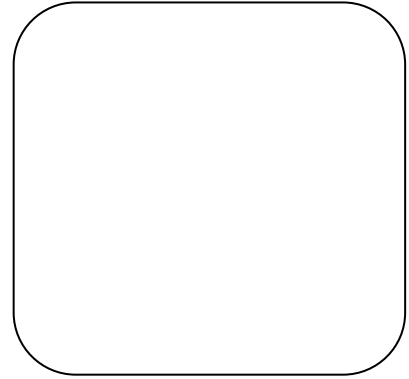
Name: _____



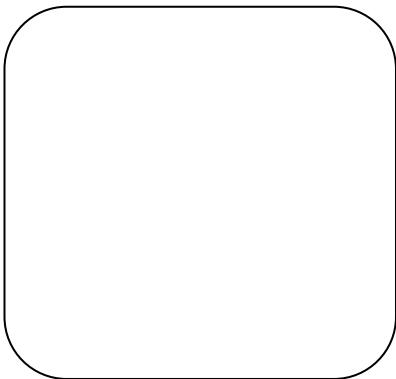
Carnivore



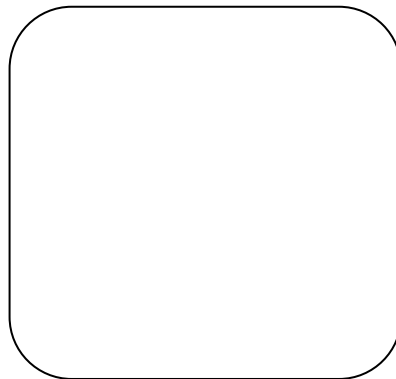
Herbivore



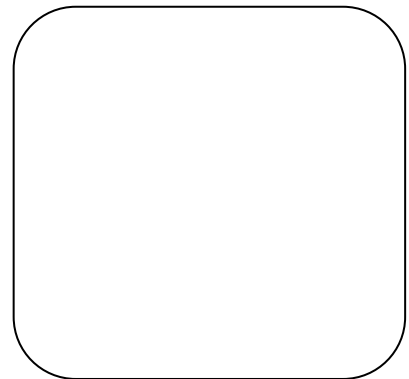
Plants



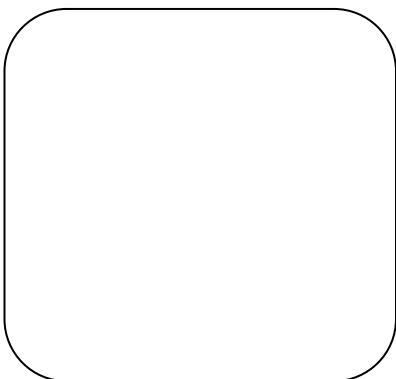
Water Source



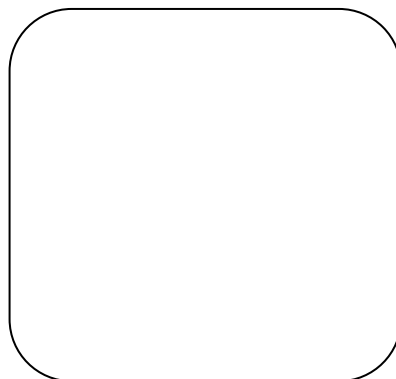
Weather



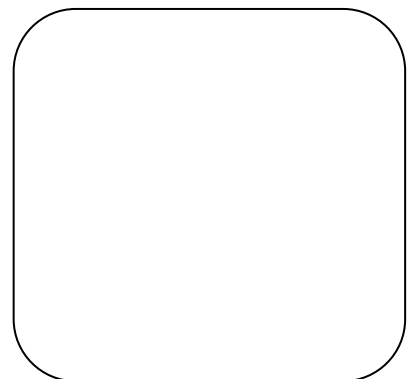
Time of Day



Time of Year



Rocks, Sand, or
Dirt



Insects, Birds
Smaller Animals

My Diorama Planner

Take all your ideas from your diorama brainstorm and draw them together as a habitat below.

Name: _____



Materials I will need:

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

Label Your Exhibit!

Think back on all your research looking at dioramas and building your own. Draft your own label to **describe** what's featured inside your diorama. Include facts that were your favorite or what you think might be the most important information for people to know.

Diorama Name: _____

PROMPTS

- Don't forget to do your research! What information do you think your classmates and/or community should know about your animal or where they live?
- Use descriptive words or **adjectives** in the label that help describe the diorama scene.
- What do you hope people will remember most about your diorama?

Write a draft of your label below:

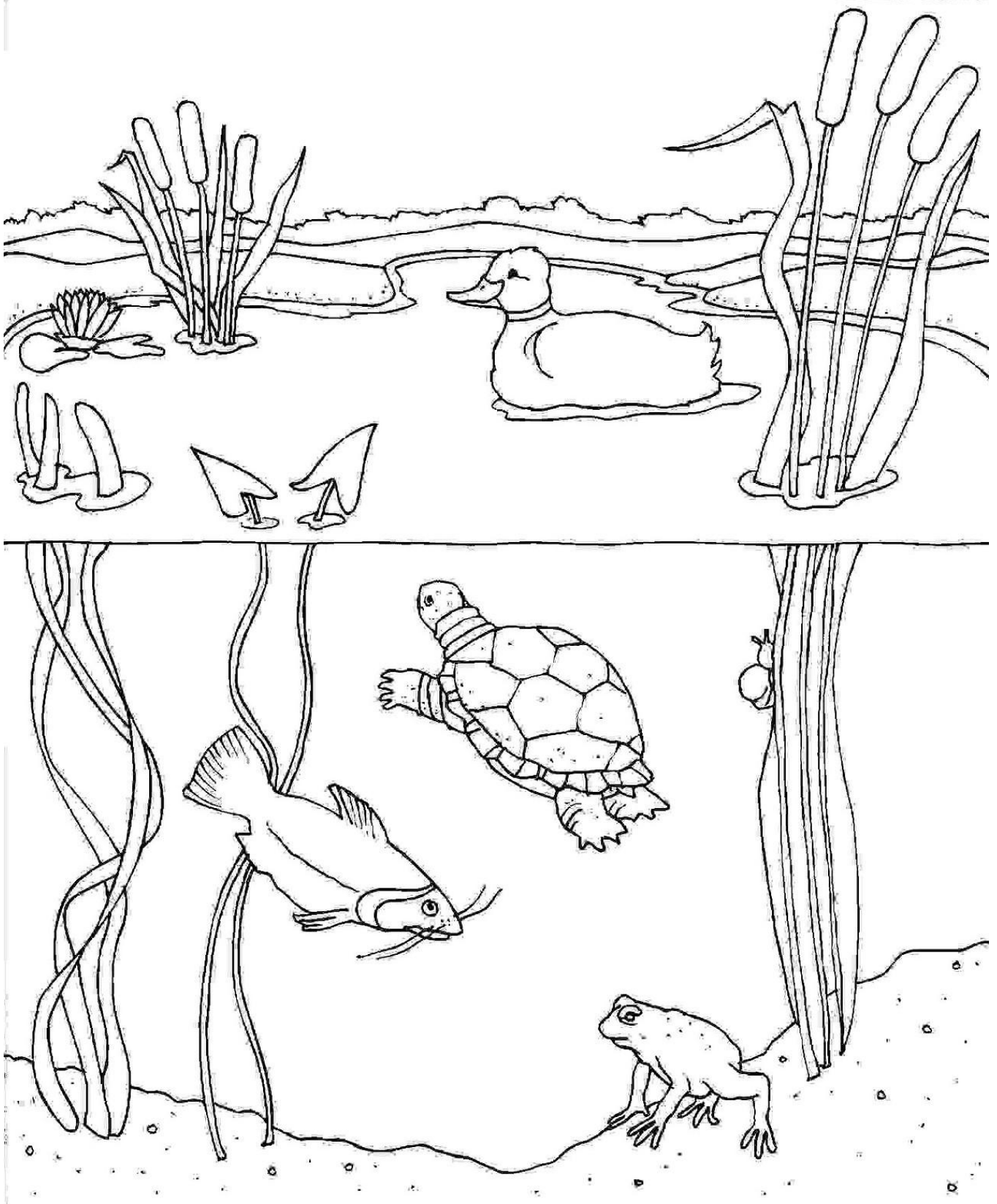
Color this habitat.

NARRATED
OBJECTS

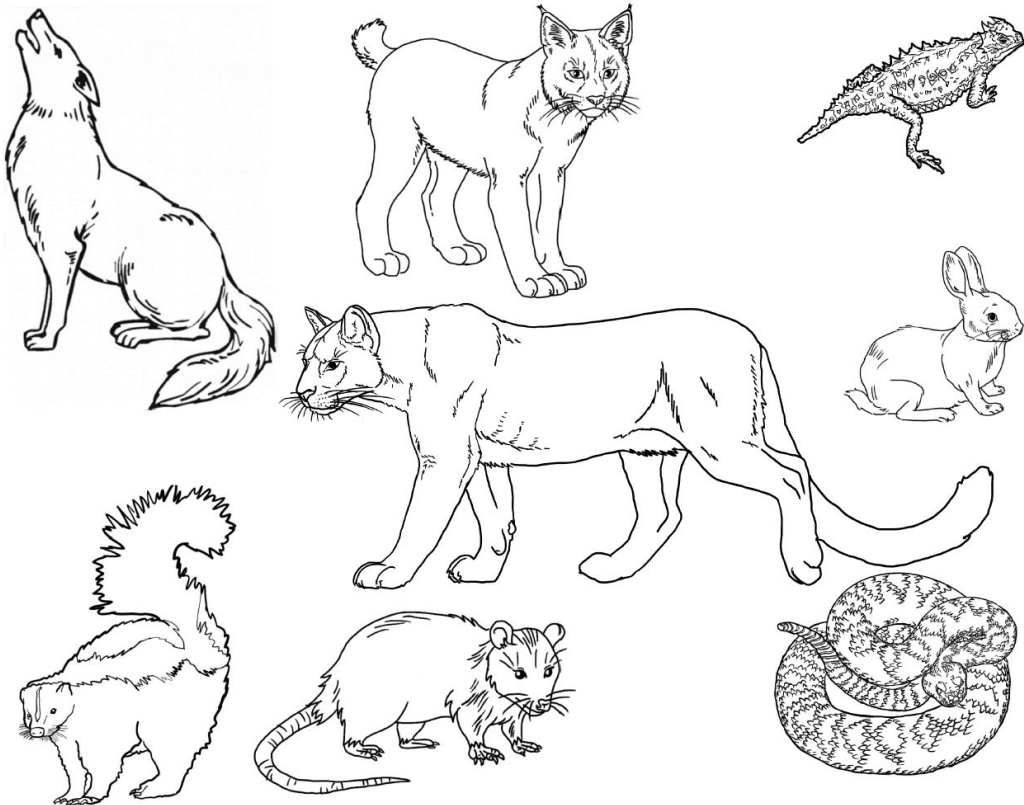
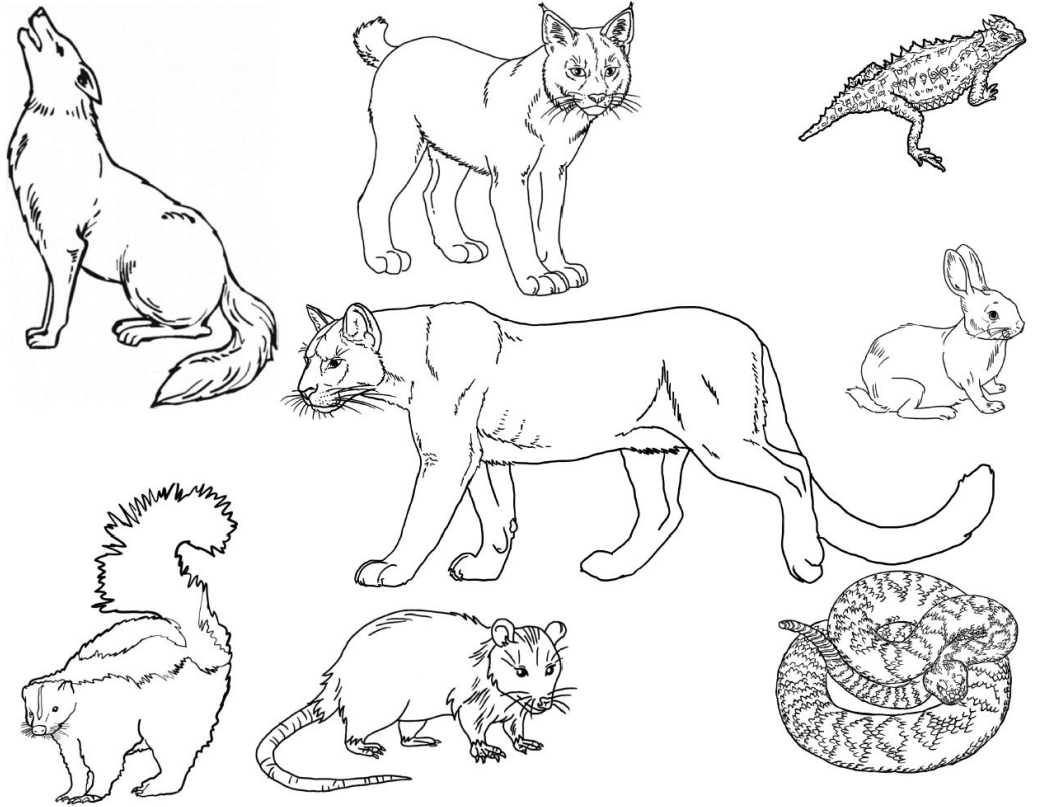


Share your work with us at weheartp22.com or [#weheartp22](https://twitter.com/weheartp22) | Copyright © 2017 Margaret Gallagher (MARGARET-GALLAGHER.COM) | We Heart P-22 by Narrated Objects

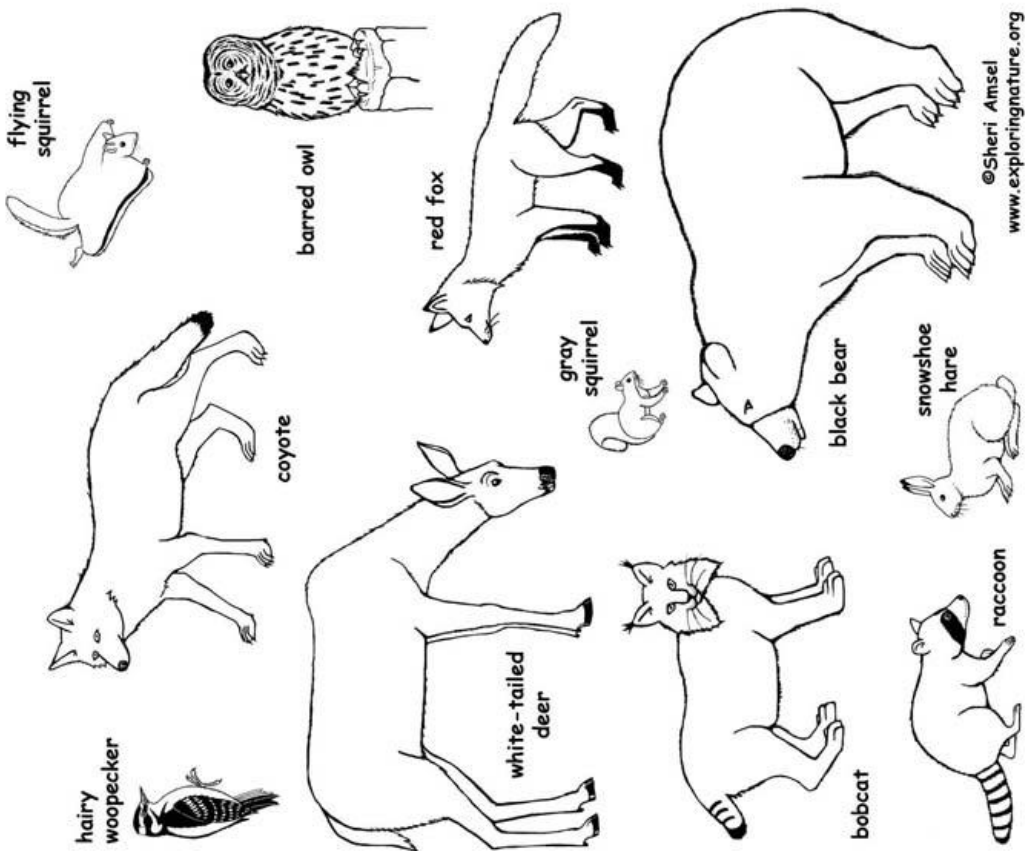
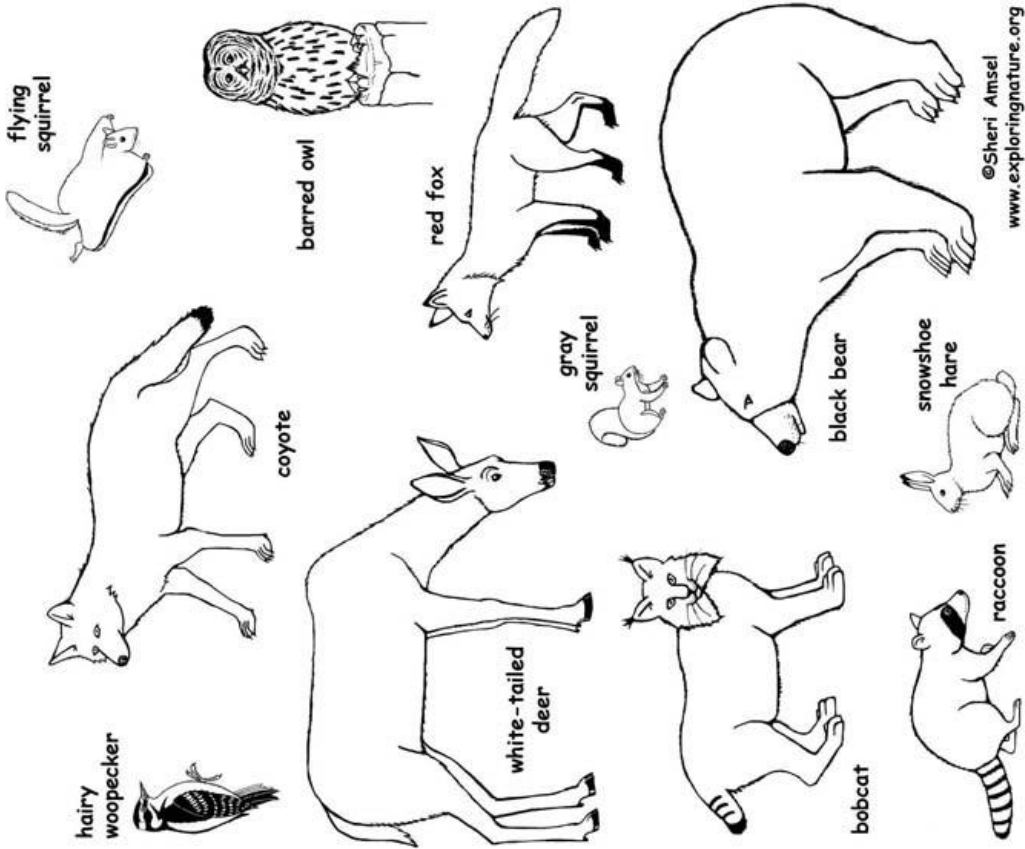
Color this habitat.



Use these pictures as optional animal cutouts for your diorama



Use these pictures as optional animal cutouts for your diorama



Use these pictures as optional animal cutouts for your diorama

