Just like us, animals need homes. The place where an animal lives is called its **habitat**. In its habitat each animal needs to have food, water, shelter, and room to move. Animals have **adapted** to where they live—the animal has changed physically or changed it’s habits to live better in its habitat. Once adapted, the animals are good at living in their habitat! They know how to get food and where to hide.

For example, a white-tailed deer lives in the forest where it can eat buds off of trees and hide behind tree trunks. A fish lives in the water where it eats smaller fish or plants and swims away from bigger fish. With its adapted fins for swimming and it’s special ability to pull oxygen from water using its gills, a fish would not do very well on dry land. Every animal has a specific place where it lives the best.

Animals interact with the plants and animals around them. The specific role an animal fills in their habitat is called their **niche**. Let’s use the edge of a forest with a pond, like the image to the right, where a beaver and a bear could both live, as an example. A beaver’s role includes taking down trees to build a dam with a lodge to live in, and a bear might catch fish to eat. A bear's niche—or role—is not the same as a beaver’s, though they live in the same habitat. A bear might catch fish from the pond to eat, but it isn’t going to move into the lodge with the beaver, and the beaver (which eats vegetables) is not going to eat the fish.

Lastly, an **ecosystem** is a place like a meadow, a forest, a river, a mountain-side, or a desert. In an ecosystem, all the plants, animals, bugs, water, soil, and sun work together as a community.

**Vocabulary**

- **Habitat**: The type of place where an animal lives. *Examples (see pictures on the next page): Meadow, Forest, River, Mountain, Desert*
- **Niche**: The role an animal fills in its ecosystem based on the habitat and on other creatures.
- **Adapted**: How an organism has changed to survive in its habitat and fulfill its role in that ecosystem. (home)
- **Ecosystem**: An entire habitat and the plants and wildlife living within it.
Look at the artwork below. Each one features an ecosystem. Can you guess what kind of ecosystem is portrayed in these works of art? Pay attention to the colors chosen by the artist. Are there a lot of greens or browns? What are the differences between these places? Which living things call each place home?

Draw a line from each artwork to its matching habitat and to the animals that might live there.

<table>
<thead>
<tr>
<th>Habitat</th>
<th>Artwork</th>
<th>Animals</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mountain</strong></td>
<td><img src="image" alt="Mountain Art" /></td>
<td>White-Tailed Deer / Great Horned Owl</td>
</tr>
<tr>
<td>An ecosystem found high in elevation (far above sea-level) that tends to have rocks and trees.</td>
<td>1857, George Inness, oil on pressboard</td>
<td></td>
</tr>
<tr>
<td><strong>Forest</strong></td>
<td><img src="image" alt="Forest Art" /></td>
<td>Field Mouse / Dragonfly</td>
</tr>
<tr>
<td>A tree-filled, shady ecosystem.</td>
<td>1930, Maurice August Del Mue, screen print on cream wove paper</td>
<td></td>
</tr>
<tr>
<td><strong>River</strong></td>
<td><img src="image" alt="River Art" /></td>
<td>Mountain Goat / Eagle</td>
</tr>
<tr>
<td>A freshwater ecosystem with constantly moving water.</td>
<td>1925, Gustave Baumann, woodcut on cream wove paper</td>
<td></td>
</tr>
<tr>
<td><strong>Desert</strong></td>
<td><img src="image" alt="Desert Art" /></td>
<td>Salmon / River Otter</td>
</tr>
<tr>
<td>A dry ecosystem that does not get a lot of rain.</td>
<td>1926, Russell T. Limbach, woodcut on cream wove paper</td>
<td></td>
</tr>
<tr>
<td><strong>Meadow</strong></td>
<td><img src="image" alt="Meadow Art" /></td>
<td>Lizard / Armadillo</td>
</tr>
<tr>
<td>A sunny, grassy ecosystem.</td>
<td>1897, Winslow Homer, watercolor over graphite on off-white wove paper</td>
<td></td>
</tr>
</tbody>
</table>
Think of a brand new animal. It can be a mix of two animals that already exist, or it can be mythical or imaginary like a dragon or a unicorn.

**Here are some questions to get you thinking:**

- What type of habitat will your animal live in?
- How much space does it need? Where does it sleep?
- What does it need to eat and drink?
- What is its niche - what role does it play?
- How does it interact with other animals?

**Directions**

1. Using your idea for an animal, sketch it out in pencil on your drawing paper.
2. Once your idea is all set and you know what you will need for your collage, look through your paper scraps and find ones that could match well with your animal.
3. Cut or rip pieces of the paper into the shapes you need. Start with the bigger background shapes, then medium, and then small shapes.
   - Don’t forget you can layer on top of other pieces to create details and make depth. Cover your entire background!
4. Lay out your collage to test how it looks. Do not glue yet! You may end up changing your mind a few times before you settle on a layout that you like.
   - Tip: it might take a lot of scraps to make a single shape. For example, you might create a bushy tree with a lot of little green scraps, instead of one big scrap.
5. When you are happy with your layout, remove the pieces from the paper.
   - You could take a picture of your unglued layout first to remember exactly where everything goes if you are worried you’ll forget.
6. Starting with the pieces that were on the very bottom, put glue on the back of the collage pieces and gently press them to where they belong.
7. Glue down your pieces working from the background to the foreground, big, to small, until your picture is complete!

**Supplies**

- 8.5”x11” Drawing Paper
- Pencil
- Eraser
- Paper or cardboard (on which to glue the collage)
- Glue stick (or liquid glue, plus paintbrush or cotton swab)
- Scissors
- Assorted paper scraps (recycled paper tissue paper, magazines, gift wrap, old art, etc.)

**Example:**

“The Migratory Shedding Mountain Goat”

This mountain goat has wings because in the winter it flies all the way to the top of the coldest mountain where nobody will bother it and sleeps all winter long. Then in the summer, it flies back down to where there is grass, sheds its fur so it is not too hot, and eats until it is all filled up for next winter.
Below is a coloring page of an artwork from the Worcester Art Museum’s collection! How will you choose to color it in?

**High Sierra Landscape**

about 1930

Maurice August Del Mue
(American, 1875-1955)

screen print on cream wove paper mounted on gray chipboard
2006.548

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