

Biome Quad-rama

Subject: Science

Objective: Students will be able to create a quad-rama (four section diorama) identifying the four major life zones in Idaho.

Materials:

- four pieces of light colored 9" X 9" construction paper for each student
- coloring tools (marking pens, colored pencils or crayons)
- scraps of construction paper
- glue
- tape
- scissors



Procedure:

1. Review the life zones of Idaho (temperate desert, grassland, coniferous forests, aquatic zone).
2. On a map have students point out locations of each zone. Tell students they will be creating a quadrama which contains all four zones and two or more animals that live in each zone. This activity may be done in pairs or individually.
3. Directions for one section of quadrama:
 - A. Fold a 9" X 9" piece of light colored construction paper diagonally each way.
 - B. Open and cut along one fold line, stopping at the center.
 - C. Place your paper flat on desk. Illustrate and label one of the biomes of Idaho on the top two triangles. For instance, you might draw trees, mountains and a Steller's jay and title it, "Coniferous Forest."
 - D. To make it stand up, overlap the bottom triangles where you cut, and secure them with glue or tape.
 - E. Use markers and scissors to create and cut out construction paper stand up animals and plants to make the habitat three dimensional. Glue them to the habitat.
 - F. Set aside. Get another piece of paper and create the second section of your quadrama, following the above directions.
 - G. When all 4 sections are complete, glue or tape the backs together. This will create the quadrama. You may want to glue the bottom of the quadrama onto a piece of cardstock or construction paper.
4. Display the students' quadramas in the library!

Idaho's Four Life Zones Gallery Walk

Subject: Science

Objective: Students will be able to name the four major life zones in Idaho and some of their characteristics.

Materials:

- Idaho's Four Life Zones blank worksheet (one per student)
- Idaho's Four Life Zones w/ filled-in information (one per student)
- Pencils
- 8 pieces of poster paper, 2 each labeled Grasslands, Deserts, Aquatic and Forests
- 8 different colored markers



Procedure:

1. Tell students to think in their minds (don't share out loud) about all the different places they have been in Idaho. What makes these places special and unique? How are they different from each other? Can you think of any plants and animals that live in these places?
2. Hand out the blank Idaho's Four Life Zones worksheet. Tell the students to quickly draw in each box what they think each life zone is like in Idaho – just sketch don't worry about coloring. Tell students that you will not give them ideas, and they are not to talk to their neighbor about what they are drawing.
3. While students are drawing, hang up the labeled posters around the classroom so each group will visit one poster each labeled grasslands, deserts, forests and aquatic.
4. When everyone is done sketching, divide the students into eight groups and assign one member of each group to be the scribe. Hand the scribe a colored marker to write on the posters.
5. Tell the students that they will be doing an Idaho Life Zone Gallery Walk. They will start at one of the posters and write on the poster any words that they associate with that life zone. Students should use their drawings for ideas and quietly discuss ideas as a group. The scribe will write the words on the poster starting at the top of the paper. After a few minutes, they will move to a different poster, read what the groups before them had written down and add to the list any new words their group has to add.
6. Direct groups to a poster and tell the groups the direction to move so every group will visit grasslands, aquatic, forests, and deserts posters. Begin gallery walk allowing a few minutes at each poster for each group.
7. Have students return to their desks and hand out the Idaho's Four Life Zones paper with the information filled-in. Compare and discuss as a class what the students wrote down on their posters with what is on the filled-in paper. What did the class get right? Wrong? Put lines through words on the poster that the students feel don't belong on the posters.

Idaho's Four Life Zones

Forests

Deserts

Grasslands

Aquatic (water)

Idaho's Four Life Zones

Forests



- Our forests are found mostly in Idaho's mountains. Summers are warm with cool nights.
- Southern and central Idaho forests get most of their water from winter snow. Northern Idaho forests are thicker, because they get more rainfall. Rainfall averages 14 - 30 inches.
- Idaho's forests contain pine trees, fir trees, spruce trees and aspen trees.
- Some animals found here include black bear, red squirrels, chipmunks, gray wolves, porcupines, owls and wolverine.

Deserts



- Idaho belongs to the Great Basin Desert. Southern Idaho is in a high desert.
- The climate is dry with little rainfall. Boise averages 12 inches of rainfall (including snow) each year.
- Summer days are usually hot with cool nights. Winters are cold.
- Sagebrush is the most important plant.
- Some animals found here include lizards, snakes, coyotes, rabbits, grouse, marmots and ground squirrels.

Grasslands



- Idaho's grasslands are found in northern Idaho in an area called the Palouse.
- The Palouse has rich soil for grasses and wildflowers to grow.
- Summers and winters are mild. Rainfall averages 27 inches per year and is evenly distributed throughout the year.
- Many of Idaho's grasslands have been turned into farmlands.
- Some animals found here include pocket gophers, red fox, pronghorn, giant Palouse earthworm and skunks.

Aquatic (water)



- Includes rivers, streams, lakes, ponds, bogs, wetlands and the areas around them.
- Wetlands have special water loving soils and plants. Some plants found in the aquatic zone include cattails, sedges (grasses), cottonwood trees, willows and mosses.
- Riparian areas are the green areas around the water's edge.
- Some animals found here include fish, beaver, otters, mink, geese, ducks, dragonflies and other aquatic insects.

Habitat Rummy & A Day in the Life

(Modified Slightly from Project WILD)

Subject: Science, Environmental Education

Objective: Students identify components of habitat and apply knowledge of the components to animals that live in particular life zones.

Materials:

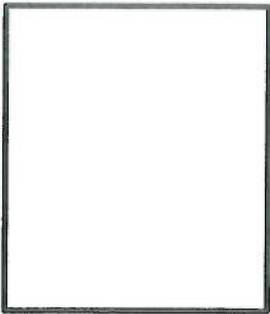
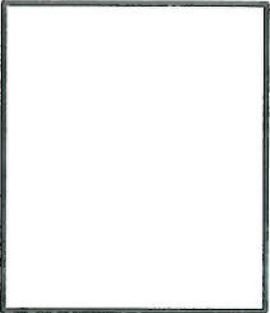
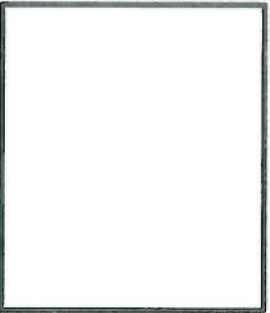
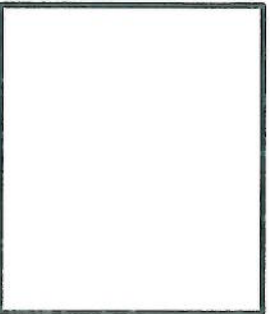
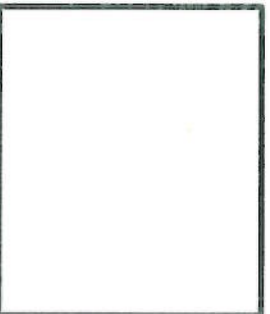

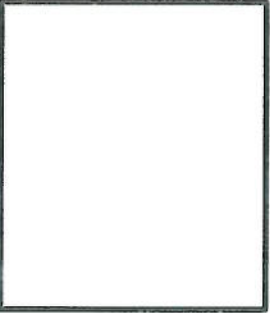
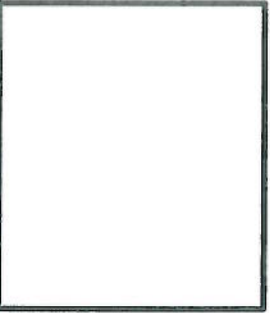
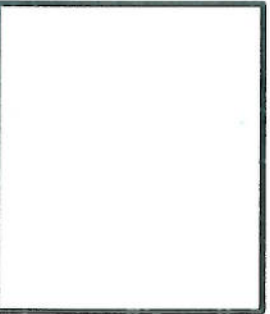
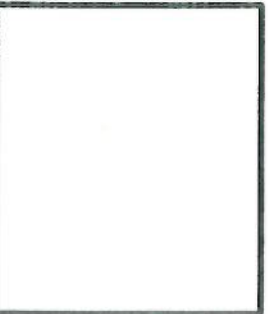
- Copies of Habitat Rummy Cards (on following pages)
- Coloring Tools
- Index cards



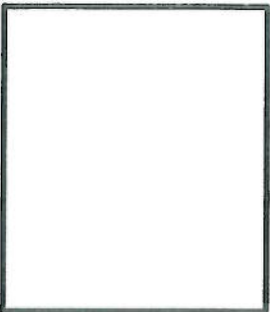





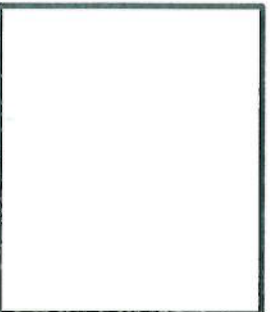

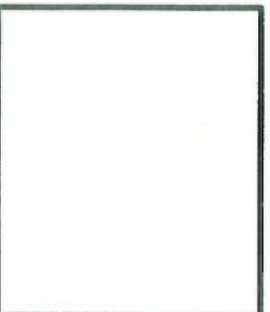







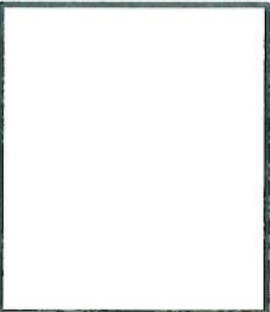



Procedure:

1. Make copies of the Habitat Rummy cards on the following pages. You will need one set of cards for every two to three students. Each group will research the animals and proceed to draw a picture and label the parts required for each card. (Ex: For the osprey food card, they would draw fish in the box and write fish in the rectangle at the bottom of the card) Each set of animals comes from a different Idaho Life Zone. The Life Zone should be labeled on the Arrangement card.
2. After all strips are completed, have the students cut their strips apart. Give the students in the group 20 blank index cards. As a group, they should decide what kind of symbol or simple decoration they want on the back of their card. Once decided, they should make all the cards look alike. After that is done, have them glue each of their squares on to the front of the card. Now they have a deck of cards!
3. To play the game, one student shuffles and deals five cards to each of the players. The object of the game is for a player to acquire five cards with the same animal. After dealing is completed, the first player may discard an unwanted card and select another from the remaining deck, which is situated in the center of the circle of play. Play progresses around the circle with discarded cards being added to the leftover cards in the center and new cards being drawn until one player acquires a complete animal habitat. Once the draw pile is out, flip over the leftover cards to make the draw pile. When a player acquires a complete animal habitat, he or she yells "Habitat!" This process continues until all habitats are complete and the student in each group with the most complete sets is the winner. Winners could compete with other winners and the class champion could be named "Wildlife Biologist!"
4. After playing, have students summarize what they've learned about habitats and life zones. After reviewing, have students write a story that describes a day in the life of one of the animals as it meets its needs for survival. In their stories, they should identify and describe all the necessary components of habitat for that animal. Share Jean Craighead George's stories such as "One Day in the Woods."

Habitat Rummy Cards Page One

<p>Lizard</p> <p>Food</p>  <p>Food</p>	<p>Lizard</p> <p>Water</p>  <p>Water</p>	<p>Lizard</p> <p>Shelter</p>  <p>Shelter</p>	<p>Lizard</p> <p>Space</p>  <p>Space</p>	<p>Lizard</p> <p>Arrangement</p>  <p>Arrangement</p>
<p>Osprey</p> <p>Food</p>  <p>Food</p>	<p>Osprey</p> <p>Water</p>  <p>Water</p>	<p>Osprey</p> <p>Shelter</p>  <p>Shelter</p>	<p>Osprey</p> <p>Space</p>  <p>Space</p>	<p>Osprey</p> <p>Arrangement</p>  <p>Arrangement</p>

Habitat Rummy Cards Page Two

<p>Porcupine</p> <p>Food</p>  <p></p>	<p>Porcupine</p> <p>Water</p>  <p></p>	<p>Porcupine</p> <p>Shelter</p>  <p></p>	<p>Porcupine</p> <p>Space</p>  <p></p>	<p>Porcupine</p> <p>Arrangement</p>  <p></p>
<p>Red Fox</p> <p>Food</p>  <p></p>	<p>Red Fox</p> <p>Water</p>  <p></p>	<p>Red Fox</p> <p>Shelter</p>  <p></p>	<p>Red Fox</p> <p>Space</p>  <p></p>	<p>Red Fox</p> <p>Arrangement</p>  <p></p>

Wildlife Worksheet

A diamante is a Japanese poem that is very precise and formal. Each line follows a certain pattern in content and form. The poem is fun and easy to write. The purpose is to go from the subject at the top of the diamond to another totally different (and sometimes opposite) subject at the bottom.

line 1 - one noun (subject #1)

line 2 - two adjectives (describing subject #1)

line 3 - three participles (ending in -ing, telling about the subject #1)

line 4 - four nouns (first two related to subject #1, second two related to subject #2)

line 5 - three participles (ending in -ing, telling about subject #2)

line 6 - two adjectives (describing subject #2)

line 7 - one noun (subject #2)

Cat

clever, cuddly

crouching, pouncing, purring

meow, feline, canine, bark

running, sniffing, yelping

lovable, smart

Dog

Now you try! Choose two animals that live in different life zones to include in the poem. Brainstorm words to go with each animal. Fill in the blanks with the words you brainstormed for each animal. Check your work with another student or your teacher. Write your final draft on paper provided by your teacher.

(subject: 1st Life zone animal)

(two adjectives describing the 1st animal)

(three words ending in "ing" telling about the 1st animal)

(four words: the first two describe the 1st animal the last two describe the 2nd animal)

(three words ending in "ing" telling about the 2nd animal)

(two adjectives describing the 2nd animal)

(Life Zone Animal 2)

