Utah Animals

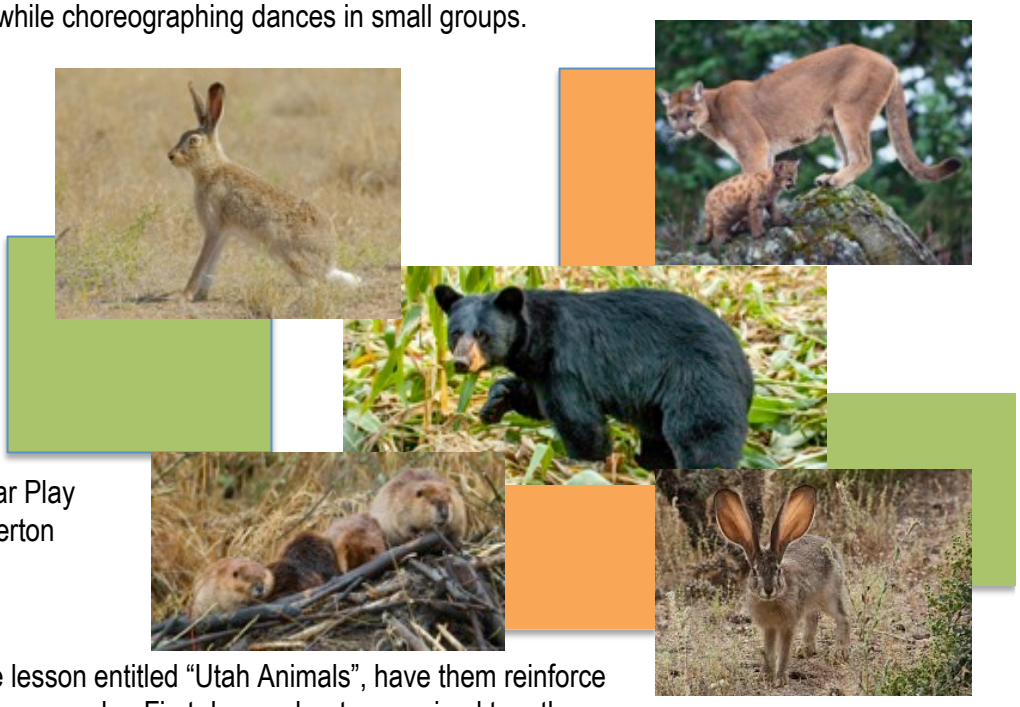
Written by Jana Shumway
to compliment Paul Nance's science lesson about Utah animals

Content Objective
4th Grade Science Strand 4:1 Organisms Functioning in their Environment.
Standard 4.1.1 Construct an explanation from evidence that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction. Emphasize how structures support an organism's survival in its environment and how internal and external structures of plants and animals vary within the same and across multiple Utah environments.

Dance Standard 4.D.CO.2:
Select a topic of study in school and develop research questions to explore, then choreograph movements that relate key aspects about the topic that communicate the information

Student Learning Outcomes
The 4th grade students will understand the physical features and habitats of the white tailed jackrabbit, the black tailed jackrabbit, the cougar, the black bear and the beaver. They will demonstrate their understanding of these animals through abstracted movement that they will create while choreographing dances in small groups.

Length of Lesson: 45 + minutes



Music and Materials Needed

Pictures of the follow Utah animals:
White tailed jackrabbit
Black tailed jackrabbit
Cougar
Black Bear
Beaver
Music: I use the following:
"Hey Brother (Like Mix Instrumental)" by Kar Play
"Escape from East Berlin" by Daniel Pemberton
"Laced Drinks" by Daniel Pemberton

Experience with Movement
After the students do Paul Nance's science lesson entitled "Utah Animals", have them reinforce that information through movement and choreography. First dance about one animal together as a class so they can understand how to take the animal's characteristics and abstract those ideas into movement. (Try to get them away from pure pantomime!)

Start with the characteristics of the BLACK TAILED JACKRABBIT
The 5 characteristics below came from Paul Nance's science lesson entitled "Utah Animals".

THE BLACK TAILED JACKRABBITS

1. *Do not change fur color from summer to winter.*
2. *Line in open prairies, foothills and sparsely vegetated deserts*
3. *Goes out in early evenings and early mornings*
4. *Eats green vegetation of shrubs, small trees, grasses, and forbs*
5. *Has long, broad ears to release heat to stay cool.*

Now take those 5 characteristics and put movement to them

#1. Their fur stays the same color. to abstract this idea, take the words "SAME" and "FUR". Have all the students move in unison (the SAME), following one child for a while, then switching leaders occasionally. Sometimes have the leader dd in fast, staccato movement (like FUR is pokey).

#2. Have everyone spread out into wide OPEN space and do really big, wide movements. Part of the big, wide movements can include up and down motions as if your arms and hands are rolling over small hills. Occasionally add in crooked, angled shapes like CACTUSES. Keep all of the movement very big to fill in the OPEN space.

#3. Have the girls create low circle shapes. (This represents the RISING OR SETTING SUN). Then have the boys jump, sneak, and move in a variety of ways ONLY when the girls are low in their shape. Then have the girls rise up together to a high level. As the girls rise up (which represents the SUN during mid-day), the boys need to freeze in a shape or collapse to the ground. Continue to have the boys respond to the girls. As the girls go down, the boys become more active and as the girls go up, the boys freeze in a shape or collapse to the ground.

#4. Have the boys spread out on the floor and create shapes of "SHRUBS, SMALL TREES, GRASS and FORBS". (A variety of shapes can be made.) Then have the girls slide around each shape to represent how the jackrabbits go from a shrub to maybe some grass, etc. to eat. Each time they circle around a boy's shape, the boy needs to make his shape a little bit smaller by doing quick staccato, collapsing movements (representing the fact that the plants are getting eaten.)

#5. Have everyone create LONG tall shapes. Hold the shape for a moment, then suddenly, with the cue of one student, everyone RELEASE out of that shape by running and twisting and swirling (REALEASING HEAT rom the long ears).

Now take all 5 characteristics and repeat them without any interruptions. Have one movement idea follow right after the other to create a mini dance. Add either an entrance or shape at the beginning of the dance, and an exit or a shape at the end of the dance to give the dance form.

**One more time, emphasize getting away from pantomimic movement before you split them into their groups.

Create

Now split the class into 4 groups. Each group will take one of the following animals and create a dance using FIVE characteristics of their assigned animal. Each characteristic should have one to two movement ideas. Also, have the students give the dance a beginning (an entrance or a shape) and an end (an exit or an ending shape) just like they did in the example above.

Once again, the following information about each animal was taken from Paul Nance's science lesson entitled "Utah Animals".

WHITE TAILED JACKRABBITS

1. *Change fur colors in summer and winter for camouflage*
2. *Hide in a depression on a hill to watch for predators*
3. *Live in grass or sagebrush*
4. *Eat mainly grasses, bark, and small twigs*
5. *Are nocturnal animals*
6. *Have log, broad ears to release heat to stay cool*

MOUNTAIN LIONS

1. *Live in all habitats in Utah*
2. *Prefer rough and rocky cliffs, ledges, rugged hills from deserts, foothills, and mountain areas where trees, brushes and bushes are found for cover*
3. *Have sharp, retractable claws*
4. *Have long, pointed teeth*
5. *Are very silent and powerful when they hunt*
6. *Have keen vision*
7. *Are an accurate judge on the movement of their prey*
8. *Are very patient while hunting*
9. *Will bury their kill to eat it for the next two weeks*
10. *Have a light brown color that camouflages it within the rocks*

BLACK BEARS

1. *Live in dense wooded areas*
2. *Have a thick layer of fat grown in the fall for winter*
3. *Hibernate for 6 months of the year*
4. *Have claws that are curved sharply*
5. *Are very agile – have short, powerful legs for running 30 mph*
6. *Climb trees and swim well*
7. *Are omnivores*
8. *Eat meat left from another animal's kill*

BEAVERS

1. *Have webbed hind-feet for swimming and propulsion*
2. *Have large flat tails for a rudder and for balance*
3. *Have transparent membranes over their eyes for seeing underwater*
4. *Have ears and noses that have valves that close underwater*
5. *Have sharp teeth for cutting wood and they keep growing throughout their lives*
6. *Have two coats of fur for protection*
7. *Hold their breath under water for 15 minutes*

Perform

After all the groups have choreographed their dances, have them perform for the rest of the class. I desired, have each group teach about their animal by narrating what the characteristics are while they perform their dance.

Discussion

Discuss the survival traits they saw in the different animals. Discuss similarities and differences between the animals. Discuss the different environments in which each animal lives and their traits that help them live in those particular environments. Go over the questions found in PAUL NANCE'S science lesson entitled "Utah Animals"

Optional Extended Activity

Take one person from each of the four different groups (beaver, mountain lion, bear, rabbit) to create small groups of four. Each member of the group will have just choreographed and performed about one animal; and now each animal will be represented in his or her newly formed group of four. Have the students take turns creating abstracted shapes and/or movements of the physical features and characteristics that help their animal survive their environment. Then have the rest of their group guess both what the animal is and what the physical feature is. For example, one student will get in front of his/her group and create a really flat, long, rounded shape. The flat shape can then move from side to side. The answer to this would be 1. a BEAVER; and 2. the BEAVER'S tail used as a rudder.

This activity will help to reinforce the students' knowledge of the survival traits and characteristics of each animal.