

Interdisciplinary Thematic Unit

"Knots on Legend Rope :

Native Americans in Their

Environment"

Karina Maceczek
Kmaceczek@aol.com
P.S. 200
The Benson Elementary School
1940 Benson Ave
Brooklyn NY, 11214
(718) 236 -5466

For more information, contact:

Teachers Network
IMPACT II Program
Attn: Peter A. Paul
285 West Broadway
New York, NN 10013
(212) 966-5582 Fax: (212) 941-1787
E-mail: ppaul@teachersnetwork.org
WEB SITE: www.teachersnetwork.org

Program Overview

“Knots on a Legend Rope: Native Americans in Their Environment” is an interdisciplinary program that taps into the Multiple Intelligence philosophy. It allows students to understand the main concepts through a variety of experiences. The program incorporates all curriculum areas. The targets are Language Arts, Science, Social Studies, Art, and Technology. The main instructional purpose of this program is to help students to understand the culture of Native Americans through their interaction with the environment. The program includes the detailed study of the North American mammals and concentrates on the fascinating bonds between people of the past and animals. The Native Americans understood nature and knew how to preserve. The program is a wonderful opportunity to grasp the lessons of the past for our future. The unit opens a broad way of exploration, research, and discovery. It starts with a series of field trips to the museum, and continues in the classroom where with the help of technology the students conduct individual and group research, write reports about selected animals, create legends and poems of Native Americans. The children type and publish their work. The software applications “Animals”, “San Diego Zoo”, and “Animals in their World” enable the students to find interesting information in an efficient and a productive way.

Use of the photo and video cameras is a desirable component of the program. If the budget allows, they help to document the steps of the learning process. The photographs and videos are great illustrative addition to the written and verbal reports and presentations.

Program Participants: This program was initiated in grade 4 of dual language gifted class, but students of all grade levels with various technology backgrounds and different learning styles can participate. Cooperative groups, individuals, or full classes can work on the activities of the thematic unit throughout the school year. The student-centered program taps into the Multiple Intelligence philosophy and allows students to excel in a variety of activities.

Materials: The program requires reservations for class trip(s) to

the Museum of Natural History. In the museum students will need worksheets for note taking, paper for drawing (the desirable size of drawing paper is 12x24 in order to make pages for a Big Book), charcoal pencils, and pastel. A camera and a video camera would be a plus for documenting the steps of the creative learning process. Suggested literature for class discussions is: “Hiawatha” by Henry Longfellow “Buffalo Woman”, “Dream Wolf”, “The Girl Who Loved Wild Horses” by Paul Goble, “Knots on a Counting Rope” by Bill Martin Jr. and John Archambault, and “Just So Stories” by Rudyard Kipling. In order to produce their work, students need access to research software and at least one classroom computer. This project can be also done in cooperation with school computer lab.

Standards: The program satisfies state standards for Language Arts, Science, Social Studies, and Art. The program develops technical literacy and global awareness.

Introduction

WE VIEW WORLD HISTORY AS AN ONION. VERY OFTEN THE MODERN PEOPLE CONSTITUTE ONLY THE SURFACE OF THE ONION. THE LAYERS OF THIS ONION ARE TO BE PEELED BACK IN SEARCH FOR THE UNDERSTANDING OF THE PAST. IN THIS UNIT WE WANT TO LEARN TO PEEL BACK THE ONION'S LAYERS. IT IS VERY IMPORTANT TODAY TO GRASP THE LESSONS OF THE PAST FOR OUR FUTURE.

THE GOAL OF THIS PROJECT IS TO UNDERSTAND AND APPRECIATE NATIVE AMERICAN CULTURE- PAST, PRESENT, AND FUTURE.

LET'S START OUR JOURNEY.

THEME/UNIT: NATIVE AMERICANS IN THEIR ENVIRONMENT:
Activities for Integrated Curriculum Areas

I. FIELD TRIP: Museum of Natural History

(Three subsequent trips)

1. Teacher planning and studying
2. CLASS TRIP: Observing Dioramas
3. Drawing Dioramas

I. ART:

1. Observing Diorama -North American Animals (Details Studying)
2. Charcoal Drawing and Pastel Drawing
3. Photographing Dioramas
4. Clay sculptures
5. Making a Big Book
6. Native Americans in Their Environment:
 - ?? Costumes
 - ?? Dwellings- Teepees
 - ?? Spiritual Objects (3-D Blocks)
 - ?? Writing Tools (feathers and sticks)

III. LANGUAGE ARTS:

1. Observation Work Sheet (see attached)
2. Reading and discussing North American Legends (see attached list of suggested literature)
3. Making Meaning Out of Images: I imagine Native Americans in the diorama. How do people interact with animals? Write your story.
4. Create an Original Legend to show relationships between people and animals
5. Create a poem about a selected animal
6. Publish a Big Book (group project)
7. Report Writing: (topic- North American Animal) See attached outline.
8. Author's Study: Rudyard Kipling "Just So Stories"
9. Compare and contrast two stories written by Kipling

10. Create your original story in Kipling's style "How Did _____ Get _____" (ex. How Did Elephant Get His Trunk, How Did Leopard Get His Skin)

IV. SOCIAL STUDIES:

1. Native Americans in Their Environment
2. Geography (NA Regions- Map Skills)
3. Habitat
4. Creating Social Studies Group Project "This Path We Travel"
5. Constructing a chart "How Do Native Americans Use Animals in Their Lives"

V. SCIENCE- Study of Flora and Fauna of Northern America
(Observing, identifying, analyzing, and researching animals and their habitat)

VI. MATH:

1. Comparing Numbers
2. Making and Reading Timeline " Domestication of Animals"
3. Creating and interpreting tables, charts and diagrams
4. Teepee Making (Shapes- cone)
5. Figures
6. Pattern (design)
7. Measuring
8. Estimating

MAIN ACTIVITIES OF THE PROGRAM

ACTIVITY #1- Selecting, Observing, and Note taking **(Done at the museum)**

The initial activity for this program is a trip to the Museum of Natural History. The groups of two or more students (depending on class size) are assigned to the selected dioramas of North American Mammals for observation and study. The suggested animals for a study would be: wolf, bear, beaver, turtle, deer, hawk, and buffalo since they played an important role in Native American culture. Some of them were clan animals and formed the Six Nations. However, the students according to their personal interest can choose the dioramas in the museum.

The children have to observe the scene of the diorama carefully and write out what they see. They are also asked to include information from the panels in their notes. The notes taken at the museum become part of the Research Portfolio.

ACTIVITY #2- DRAWING AND PHOTOGRAPHING THE DIORAMAS (done in the museum)

MATERIALS- drawing paper (12x24), charcoal pencils, pastel, and photo camera.

The children have to draw two sketches of the diorama using charcoal pencils first and then pastel. A group of assigned students can photograph the dioramas for reference material.

ACTIVITY #3- REPORT WRITING (Done in the classroom)

English Language Arts Performance Standards: E2a, E3a, E3b, E3c, E4a, E4b

The next activity is Report Writing about the animals in the diorama. The target of this assignment is to learn to collect more information using technology. The students use classroom computers and work with software. This activity can be done as individual or group project. It's important to teach students to take notes when they get information and indicate sources. They must use their own words, include their personal experiences, and express their own feelings when writing a report on a selected animal.

Report Writing

1. Choose a topic (select an animal)
2. Gather information and indicate sources
3. Collect pictures and illustrations
4. Take notes. Indicate sources
(Hint: Use your own words when taking notes on what you read)
5. Include personal observations and knowledge
6. Express your feelings and emotions. Include your opinion.
7. Organize information in a folder
8. Write an outline
 - ?? Introduction
 - ?? Describe an animal
 - ?? Describe an environment
 - ?? How do people interact with this animal? (Past/Present/Future)
 - ?? Conclusion
9. Write a first draft
10. Revise
11. Proofread
12. Write a final draft
13. Publish

Sample Worksheet

Report Writing

1. Choose a topic (select an animal)
2. Gather information and indicate sources
3. Collect pictures and illustrations
4. Take notes. Indicate sources
(Hint: Use your own words when taking notes on what you read)
5. Include personal observations and knowledge
6. Express your feelings and emotions. Include your opinion.
7. Organize information in a folder
8. Write an outline
 - ? ?Introduction
 - ? ?Describe an animal
 - ? ?Describe an environment
 - ? ?How do people interact with this animal? (Past/Present/Future)
 - ? ?Conclusion
9. Write a first draft
10. Revise
11. Proofread
12. Write a final draft
13. Publish

North American Animals - Wolves

We went to the Museum of Natural History two times. Igor and I were working on the wolf diorama. We drew pictures of the diorama in charcoal first and then in colored pastels. We did worksheets in the museum. On a second visit we drew pictures. Here are some important facts I learned on our first trip:

- ✍✍ Wolves height 26-32 inches
- ✍✍ Weight- 50-120 pounds (25 to 54 kg)
- ✍✍ Length: 5to6 feet tall
- ✍✍ Wolf territory ranges from 50 to150 square miles
- ✍✍ Diet: moose, elk, plus other small animals

The bus ride was almost an hour long. But when we got to the museum it was ausome. Mrs. Maceczek asked Igor and me to work on the diorama of the North American Grey Wolves. In the diorama two wolves are running at night with the northern lights shining in the darkness.

Wolves were around us for centuries. They are also known as Canias Lupus. They are mammals just like us. Wolves are amazing animals because of the way they keep order. For example, when they hunt, the leader goes first, and the rest follows behind in a single file. Wolves use their powerful legs to jump across rivers and run long distances. Fifteen to thirty million years ago, meat-eating mammals known as creodonts hunted prehistoric prey animals. Creodonts evolved, or gradually developed into two groups: catlike animals that sneaked up on their prey and dog-like animals that chased their prey. Wolves, coyotes, jackals and foxes evolved from the dog-like animals. Domesticated dogs evolved from the wolf.

Wolves are well equipped for life as predators. Their legs and big feet make it possible for them to chase for 20 miles(32)km or more. A wolf chasing its prey runs at 25 to 40 miles per hour (40- 60 km/h). That' as fast as a car travels on a city street.

Wolves usually start their attack by stalking their prey. They sneak as close as possible without being noticed. Suddenly they rush toward it. The sudden rush is meant to frighten the prey, making it run away.

If the animal runs, the chase begins. The leader, followed by the rest of the pack, starts the chase. Working as a team, some wolves may hold back or circle to wait in ambush. Large animals-moose, elk, caribou, bighorn sheep, bison- may not run from the enemy and face the pack of wolves. Wolves would rather not attack large, healthy animals that face them because they could be injured by hooves or horns.

Large animals sometimes can outrun the wolves. But if the animal gets tires from running or defending itself, the whole pack moves in for the kill. Wolves attack large prey animals by biting high at the rump, flank, neck, or shoulders. These areas are the safest because they are farthest from the front and hide hooves. Wolves also bite the animal's nose. An animal with a wolf hanging onto its nose will try to get the wolf off and will forget to protect the rest of its body. The other wolves can attack with less risk of getting hurt.

Hundreds of years ago, wolves and humans lived with each other with mutual respect. Native Americans admired the wolf for its loyalty to the pack, its skill at staying hidden, its ability to track, and its use of teamwork to catch prey. As hunters, they imitated of the wolf's skills.

Shoshone Indians and the people in other Western tribes hid like wolves in deep grass and waved wolf tails over heads to attract curious antelope. Plains Indians such as the Pawnee and Sioux, covered themselves with wolf's skin and were able to creep close bison and other large animals.

Wolves will never again roam freely over all of North America. Large cities, roads, and farms limit the space available for wolves. But wolves are adaptable given the chance to survive. The wolf's future depends on maintaining wilderness areas.

I think we can help the wolves by trying to leave their wilderness area alone. The wolves will rise again.

Report is written by Eugene Shteynvarts

ACTIVITY #4- DESIGNING A CHART

The students will create charts to show how people of the past used the different parts of the animal. The children will learn that the lives of Native Americans literally depended on animals. Therefore, nothing was wasted and every part of the animal was used.

Strategy: Individual or Cooperative Research

Vocabulary:

Sinew- muscles along the backbone

Hide -skin

Rawhide -hard leather

Tanned hide -soft leather

Antlers- bony growth of any animal of the deer family

Directions: discuss with your group and think how people of the past used animals. Fill out the chart.

Buffalo

Part of Animal	How it was Used
Meat	Meals
Stomach	Pots, bags for carrying, food, and water
Tongue	Ceremonial object
Bones	Sewing needles, toys, scrapers, musical instruments, decorations
Muscles along the backbone(sinew)	Painting sticks, treads in sewing
Twisted sinew	Bows (extremely strong), arrowhead wrappings
Horns	Cups, spoons, jewelry, and decorations
Dried droppings	Fuel for fires
Hair	Ropes, belts, decorations
Ribs	Sleds for winter games
Hide (skin)	Hard leather (rawhide)-boats, drums, rattles, bags, splints for broken bones. Soft leather(tanned hide) – snow shops, tepees, moccasins, blankets, clothing, pipe holders

Grand Caribou

Part of animal	How it was used
Meat	Delicious meals- fresh cooked or dried
Tendons (sinew)	Glue cordage (ropes and cords)
Antlers	Tools, jewelry, decorations, buttons, musical instruments, and toys
Bones	Toys, knives, needles, arrow heads
Skin	Clothing, lodging blankets, musical instruments

(North American Animal)

Part of the Animal	How It Was Used

ACTIVITY #5- PUBLISHING

The children have to word process their reports and use Clip Art to insert pictures. The children learn to proofread and edit their work using Spelling and Grammar on the computer. The teacher's task is to guide the students and give them individual help when needed.

ACTIVITY #6-“Native Americans in the Diorama”

The students have to imagine Native Americans in the diorama. **How do people interact with animals?** Then the students recreate the drawings done in the museum adding the people into the scene of the diorama. It is desirable to read and discuss books written by Paul Goble for this activity. His legends carry students deep into Native American culture and teach basic lessons on what it means to be a human being. They teach how to understand and preserve the environment. While the Western world sees the animals as beasts-beasts to hunt, to fear, to own and, the Native people consider them as part of Creation. Humans, animals, plants, and stones are all part of a circle and it is important to keep balance and harmony within it.

Activity #7- READING AND ANALYZING “JUST SO STORIES”, BY RICHARD KIPLING

The stories “ How the Leopard Got His Spots ”, “The Elephant’s Child”, “The Cat That Walked By Himself” explain in a very unusual and entertaining way how the world was created and teach children to understand relationships of humans and animals.

Language Arts : Response to Literature/ 2-4 Lessons

“Compare and Contrast Two Stories” by R. Kipling

? ?Read and discuss “The Elephants Child” and “How The Leopard Got His Spots”

? ?Complete the graphic Organizers

? ?Answer Questions below

? ?Write your response in an essay form

* Your writing piece has to have the beginning (introduction), the middle and the ending (conclusion). Please include your first draft, revise and proofread, and a last copy

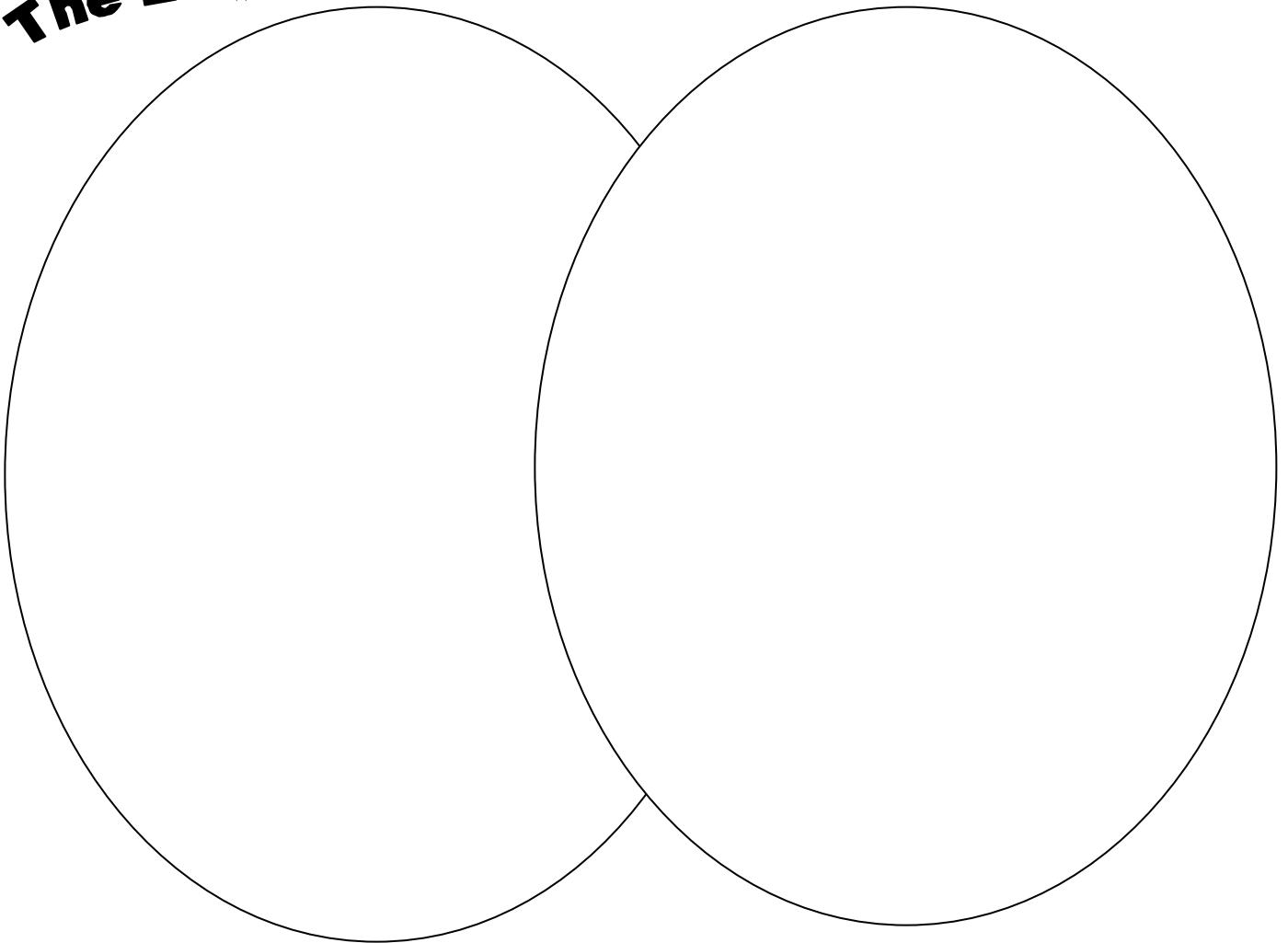
Questions:

- 1) Where and when does each story take place? (Please support with the evidence from the text)
- 2) List the characters in each story. Describe the appearance. What are their special features? Do you meet the same characters in both stories? Do they look the same, or act the same? Or may be they are totally identical?! (Be specific and give examples from the story)
- 3) Who is the main character in each story? (Describe and analyze)
- 4) What problem(s) does the main character face and how does he overcome it? (Problem and solution)
- 5) What is the genre of these stories?
- 6) What is unusual about the author's technique and style? Analyze the author's language, selection of words, the special effects, original use of contraction (For example: running together three words: courteous + curiosity = CURTIOSITY) Find more good examples from the stories.
- 7) In what ways are these stories similar to each other? In what ways are they different?
- 8) Who does Kipling call "Best Beloved"? Why?
- 9) What's your opinion about these stories? What are your feelings?

~* And now, my Best Beloved, write your response to Kiplings stories*~

COMPARING AND CONTRASTING
“Just So Stories” by Rudyard Kipling

The Elephant's Child **How The Leopard Got His Spots**



ACTIVITY #8 –Creative Writing

Create an original Native American legend and a song or poem to accompany it.

Ask the student to put a Native American into a scene of a diorama and make it come alive. What is happening in the diorama? The goals of this activity are as follows:

- ? ?To teach a student to produce an original fictional story
- ? ?To understand the specifics of literary genre of a legend and a poem-song
- ? ?Express ideas clearly and creatively
- ? ?To use previously obtained information when creating a legend
- ? ?To reflect the understanding of the unique interaction of Native Americans with the animals
- ? ?To show the holistic understanding of a unit

Creative Writing: Student Work Sample

The Great Wolf

It was a gloomy night, but the northern lights made it shine like day. A wolf was walking in the colorful snow of Alaska. Near by was a village called Hiawatha. The village always had food but one day all the food had vanished. It has been said that a gray wolf could bring back the food the village lost. Hunters set out to find the great wolf.

One of the hunters was a young man. His name was The One Who Talks With Wolves. He searched for weeks and he finally found the great wolf. He told him, "Oh great wolf! Hear my sorrow! My peoples food supply has vanished, and we need your help to find it". The wolf answered "Sure my child! I will help you"! And they both set off on the journey that awaited them. They traveled over the mountains and across the bad terrain. One day they found the food but the guards guarded it. Quickly the wolf and the hunter tied up the guards, took the food, brought it to the village, there was a big feast in the honor of the wolf.

And from that day on the wolf protected the village.

The Great Wolf

The Great Wolf is soft and sweet
And his diet is meat
The Great Wolf is an Indian
Who had the look and Spirit of a wolf.
He helped the village, and now he is free.

By: Eugene Shteynvarts

HOW THE BEAVER BECAME

In the time of the Indians buffalo skin was very popular. Almost everybody had it except a hunter named War Turtle. War Turtle wanted to get one.

He went to the forest and was surprised to see a buffalo. The buffalo's skin was glowing. War Turtle decided to kill it and take its skin.

When he got back to his village he told everyone where he saw the buffalo. Soon everyone had the glowing skin.

It was summer and the Indians went for a swim. They had the skins on them, but when they got out of the water the skins stopped glowing, became rougher and stuck to their bodies.

The Indians were so surprised that they forgot the way to the village. They were stuck so they decided to make a living together. Their teeth and skin started to grow longer, and when the skin dried up it turned into a leather-like material.

Today you can still see these Indians but now they are called beavers.

By: Arthur Zak

Activity #10- Book Publishing

The culminating activity is publishing a Big Book “Knots on a Legend Rope - Native American Animal Stories”. The title of the book may vary to reflect the specific content of the children’s book. The teacher will laminate and bind the children’s drawings with the matching printed legends and songs into the book. The rope will be tied to the binding of the book. Every time a person reads a legend, she/he will tie a knot on the rope as a symbol of a lasting relationship of past and present and as a sign of deep appreciation to the valuable lessons of the past.

Cooperative Learning Lesson

AIM: Interpretation of Native American Legends

PROCEDURE: The class is divided into groups. Each group is assigned to work on a specific project. The teacher explains the tasks and distributes materials. Within the groups the students will:

1. Distribute the role cards among the group members
2. Read and discuss the assignment
3. Perform the task
4. Present the assignment to the class (presentation)
5. Give each other a feed-back (evaluation)

ASSIGNMENT #1: Legend in Pictographs

An Iroquois nation was comprised of the clans. The clan could be signified by pictographs. Pictographs are the symbols of physical objects (warrior, arrow, and tree) or of concepts (night, hunt, life, and death).

Pictographs are the regional system of writing used by many Native American peoples.

STUDY THE SAMPLES AND INVENT THE ORIGINAL PICTOGRAPHS TO TELL YOUR LEGEND TO OTHER CLANS. USING THE PICTOGRAPHS, WRITE YOUR LEGEND ON CHART PAPER.

ASSIGNMENT #2: The Six Dancers

Native American people of many tribes had special ceremonies. They would form a secret organization among themselves. In the night they would gather around their little council fire in the forest near the lake. There they would dance to the beat of their leaders’ drum. Their dance would tell a story.

READ THE LEGEND AND CREATE A SERIES OF MOVEMENTS WITH THE BEAT TO TELL THE STORY. YOU CAN USE YOUR VOICE FOR SPECIAL SOUND EFFECTS. OTHER CLAN MEMBERS WILL TRY TO INTERPRET YOUR MOVEMENTS AND GUESS THE LEGEND.

ASSIGNMENT #3: Who Am I?

Animals played an important role in Native American culture. They provided them with food, clothing, shelter, weapons, tools, and food. They gave people inspiration and strength. Every species had a particular place in the circle of life. Native Americans knew that their lives depended on animals. Therefore they were very respectful to the animals. They knew them very well and passed their knowledge from generation to generation.

CREATE A POETICAL DESCRIPTION OF THE NORTH AMERICAN MAMMAL. DO NOT TELL THE MEMBERS OF THE OTHER CLAN WHO YOUR ANIMAL IS, BUT GIVE THEM INTERESTING CLUES SO THEY CAN GUESS THE ANSWER.

REFLECT THE FOLLOWING IN YOUR DESCRIPTION:

? ?WRITE THE DESCRIPTION IN FIRST PERSON POINT OF VIEW (I AM...)

? ?MY APPEARANCE

? ?MY HABITAT

? ?HOW I BECAME

? ?AM I DOMESTICATED OR WILD ANIMAL

? ?MY RELATIONSHIP WITH HUMANS

Student Work Samples for Assignment #3- Who Am I?

(Group Project)

Guess Who?

My head is marked with black on the muzzle and behind the ears.
I have a white throat.
I live in the West Coast Mountains.
Once a cat was born.
He liked to go on adventures and live in the wild...
That cat was me.
I am a wild animal.
I am afraid of humans because they hurt me for my beautiful fur and tasty meat.

By: Lenny, Yeva, and Sasha

Mystery Animal

I am a North American mammal.
I run as fast as the wind.
My fur is golden brown like sand.
I have big brown eyes like the oak's leaves. My eyes never close...
I have bright white spots like rain drops on my body. I camouflage...
My look is soft and calm.
I live in the lush, green forest.
I am a wild animal that runs free.
People use my fur for blankets and clothing
They use my meat for food.
Who am I?

By: Zhenya , Asya, Valentina

ROLE CARDS

Presenter	Time Keeper
Recorder	Manager
Illustrator	Performer

Group Evaluation

Group Name _____

Date _____

What we did today _____

What we did that helped us complete our work _____

Examples of things we said to each other for encouragement _____

One thing our group needs to do better next time _____

Signature (s) _____

Resource List

I. The American Museum of Natural History- Guide for Teachers

The American Museum of Natural History has long been a resource for students and teachers, providing exciting educational experiences. Over 500,000 schoolchildren visit us each year, and we offer a variety of ways to structure a school visit. Read more to learn about some of our different school programs, how to make a reservation, and important tips to know before you arrive.

Field Trips

This year we have some new field trip offerings that will make your visit to the Museum more rewarding.

Teacher's Guides are available for most of these Halls, and the appropriate Guide will be sent to each teacher who registers for a focused field trip. Please review the Guide and bring clipboards, pencils, and copies of the Student Field Journal for your students. It may be helpful for younger children to also have blank sheets of paper for drawing in the Halls.

Once you arrive at the Museum and check in, an Education Teaching Volunteer wearing a red vest will give your class a brief orientation to the Museum and escort you to your registered Hall. The Teaching Volunteers are also available to help students use their Field Journals and answer questions. Rolling carts with objects are often in the Halls and your class may have the opportunity to touch artifacts and ask questions about them.

In addition to focused field trips, the Museum offers other options for school groups. The following programs are currently available and one or more may be combined with a focused field trip.

If you are interested in combining any of these options with a focused field trip, please choose an Exhibition Hall when making your reservation.

Tips For Educators

1. All groups must register at least five weeks in advance for all types of field trips. Call Central Reservations at 212-769-5200.
2. Please specify which Exhibition Hall you will visit on your focused field trip. We will send the appropriate Teacher's Guide with your confirmation packet.
3. Read your confirmation letter before arriving at the Museum. Bring your confirmation packet so that we may escort you to the proper destination.
4. Call Central Reservations immediately if there are any changes in your reservation.

<http://www.amnh.org/education/> - web site of the Museum of Natural History

Education Department: 212-769-5170 Contact: Uta Gore

- II. **Software**- Grolier's Encyclopedia, San Diego Zoo, Animals in Their World
- III. **Literature** -
Longfellow, Henry. "Hiawatha"
Kipling, Rudyard. "Just So Stories"
Goble, Paul. "Buffalo Woman", "Dream Wolf", "The Girl Who Loved Wild Horses," "The Gift of the Sacred Dog"
Archambault, John. Martin, Bill. "Knots On A Counting Rope"