



## **Plains Indians: An Interdisciplinary Unit of Study**

Curriculum Unit 03.02.03  
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I participated in the seminar on Everyday Life in Early America. Currently, the New Haven Curriculum for first grade includes the study of Native Americans, and their beliefs, institutions, ideals, traditions, and conflicts. However, it is not developed extensively and does not include sufficient resources, goals, objectives or rationale for such a study. The Social Studies curriculum is in draft form and does not offer a significant amount of support or a detailed outline of instruction. This seminar on everyday life in early America is the perfect opportunity to merge my newly gained insights and knowledge with the open-ended curriculum and interdisciplinary studies.

This seminar and its topics of discussion has increased my preparation and added to my personal background knowledge of Early America. Through the many meaningful significant discussions and lectures I was able to effectively design an interdisciplinary unit as well as plan to deliver and teach the unit to students in an authentic way. The topics being explored in the seminar align directly to the important components of Native American life on the plains.

The unit authentically explores relationships, customs, traditions, beliefs, environment, food sources, and both written and oral communications of the Plains Indians during the 17th and 18th century. The unit allows children to connect to Native American culture and draw similarities and differences between their own self, their own lives, and culture to that of another culture of an earlier day. The lessons are directly linked to children's understandings of the similarities and differences among all of their experiences of everyday life. This unit is responsible for getting children, who come to first grade with an incredible sense of self, to move from taking an experience of their own life, and comparing it to Native American life and vice versa.

The unit is rich in literature and illustrations, utilizing seminar discussions and children's fiction and nonfiction literature relating directly to Native Americans. The unit is also filled with skills students will learn and build upon. Skills such as graphing, writing, drawing, communicating, language development, critical thinking, reflecting and sharing are all incorporated.

The unit provides students with the chance to identify with Native American culture and allow me to find out where their interests lie. In developing the unit I will remind myself that it becomes a starting point for children as they grow into an extreme world of diversity.

I am currently working as a curriculum staff developer in a K-4 school in New Haven. I am responsible for

supporting student learning through assisting teachers at each grade level. Some of the professional support tasks I do include: conferencing with teachers about instructional planning, organizational procedures and policies, managing individual differences, implementing classroom management plans, home school connections, and evaluation and assessment of both themselves as educators and what students have learned. In supporting teachers I must model, coach, and demonstrate. I decided to participate in the Yale Teachers Institute because I saw it as an opportunity to continue supporting teachers in the above mentioned ways while implementing a specific unit of study. I hoped that teachers would be able to see the relationship and connections between the unit I planned and the support tasks above.

Columbus School houses New Haven's biggest bilingual population. 80% of our children are native Spanish speakers and are acquiring English as their second language. Therefore it is extremely important to use an abundance of visuals, vocabulary, word lists, discussion and hands on meaningful experiences to ensure successful teaching and learning is taking place. I have incorporated all the disciplines in the unit so that it cuts across the curriculum as well. Since the new social studies curriculum includes the theme of Native Americans and since I have never developed deeply into this topic, I saw this seminar as a perfect opportunity to merge my knowledge involving the Multiple Intelligences with my prior experiences in curriculum and interdisciplinary studies.

I thought it would be exciting to create a unit of study that gives each student the opportunity to exploit his or her own learning styles. This unit is full of opportunities for children to be creative while exploring Plains Indians through the multiple intelligences and developing skills through the disciplines. Most of the activities outlined in the overview of the unit, as well as the activity plans themselves, are quite open-ended and can be performed by children in a variety of ways. This gives students with limited English language skills a comfort zone that promotes a safe learning environment. Children at Columbus know that there is no right and wrong, there is only explanation of how and why. The materials used for the unit are numerous and diversified, thus encouraging student success and creativity.

The unit is designed to be challenging for students of all abilities. It encourages students to break out of normal patterns of learning, and to solve problems that are life related and involve empathizing with other cultures. The unit also guides children into seeing relationships between ideas and actions, reaching their own conclusions about what they have learned.

There is an abundance of skills, such as writing, problem solving, reading, charting, graphing, cooperating, sharing, language development, and critical thinking, explained in the activity plans. The unit provides each individual with the opportunity to tap into his or her own intelligence. Student success is always highly correlated with feelings of comfort and security. The unit is designed to promote this comfort by supporting students with varying learning proclivities and language abilities, while engaging in a study of Plains Indians.

I have decided to take interesting pieces of Plains Indian culture to use as the lessons. I believe it is important for the students to know how Plains Indians dressed, the importance of the buffalo, what they ate and the importance of corn, how they communicated with each other, forms of entertainment, and housing. I would like also to design the unit so each lesson gives students some product/project to keep. The following outline will assist in explaining the important components of the unit.

## Unit Focus Questions

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Who are Native Americans?

How and what did they do to survive? Buffalo, Housing

What did they wear? Eat?

What type of life did they lead? Transportation

In what ways did they communicate with each other? Writing, Oral Tradition

## Unit Outline

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Introduction, Linguistic Intelligence

Have a Native American talk with students in a circle on the floor. A constructivist approach will let children bring their own knowledge to the new unit. (KWL chart). Make list of important words and vocabulary that will be useful to students to have and refer to during the unit.

Social Sciences: Name Giving, Intrapersonal Intelligence

Read a piece of Native American Literature, *The Legend of Bluebonnet*, and have each child identify with a special talent or trait that defines who they are. Each child gives them self a special Native American name according to their special talent. Children will make headbands with their Native American names on them. These will be used throughout the unit as motivation to be a good tribal member. Every time a student does a good deed for his classroom tribe they get a real colored feather added to their headband.

The Introduction of the Horse to the Plains Indians: Linguistic Intelligence

Students will listen to a story called *The Gift of the Sacred Dog*. Students will discuss how the horse changed the lives of the Plains Indians. Students will draw comparisons and make a chart depicting life prior to and life after the introduction of the horse.

Plains Indian Beading: Mathematical Intelligence & Kinesthetic Intelligence

To discuss Native American dress. To read a piece of literature portraying colors and style of dress. To create a piece of jewelry of choice using beads and material similar to that the Natives might have used. To make use of a pattern while making jewelry and share with class.

Literature: Symbol Writing, Linguistic Intelligence

Read *The Legend of Indian Paintbrush*. Identify with pictures and text. Introduce symbols in text and generate symbols on hanging chart. Have students write their own stories on paper to plan and then on mock deerskin

for final. We will share our stories in a circle, where each child will be able to elaborate on their story through the use of language.

Physical Arts: Dancing (Traditions), Kinesthetic Intelligence

Students will listen to a story called *Dancing With The Indians* . Students will have a dancing ceremony to Native American music and add their own rhythm and beats vocally and with their newly created instruments.

Science: Teepee (Housing), Naturalistic Intelligence

Students will listen to a story called *The Tipi (Native American Houses)*

Students will examine a poster image of a teepee. As a group we will review the parts and logically discuss the purpose of specific features. Each student will construct an authentic teepee with tree branches, bark, and string (roots or vines) which they will collect from the environment on a nature walk through East Rock. The decorative styles of each teepee will be a creative expression of each child.

Diagramming: Buffalo as a Food and Life Source, Interpersonal Intelligence

In small groups students will web the buffalo after a shared reading of:

*People of the Buffalo*. We will discuss each group's web and its important information, and how the Native Americans used the walls of caves to sketch the buffalo.

Each group will get a large piece of scratch board and working together will assimilate how this was done, creating a group cave drawing of their own.

Math: Native American Foods, Logical & Mathematical Intelligence

We will be reading a story called *Corn is Maiz* . We will be planting a Three Sisters Garden (beans, squash and corn). We will watch it grow and record our observations in science journals.

Closure: Now vs. Then, (Comparing Lives), Linguistic Intelligence

Two charts, information provided by the students, will demonstrate and compare the differences between the age of the Native American and the present day.

Students will appreciate the advantages of technology today and understand how the Native Americans were able to do some of the same things we do today, but in simpler ways.

## **Activity Plan: Plains Indians: the Introduction of the Horse, Linguistic Intelligence**

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Goals, Rationale, and Background Information

Transportation was one area that was transformed with the arrival of the horse. Before the horse Native Americans used large dogs as pack animals to move their belongings (Stirling 1965 ). These dogs either carried small packs that were tied to their backs or a travois was used (Josephy 1961). A travois is an A-shaped frame that can be dragged with a load attached. Therefore, before the horse the Indians had three options while traveling, possess few belongings, leave their belongings behind, or move slowly and carefully and let the dogs drag them for them (Webb, 1931).

The Indians got their first horses from the Spanish. When the Spanish explorers Coronado and DeSoto came into America they brought horses with them. In 1680 the Pueblo Indians revolted against the Spanish and drove the Spanish out of their land and back down into Old Mexico. The Spanish were forced to leave so quickly that they left many of their horses behind. The Pueblo Indians took these horses and began to use them. The Indians began to raise large herds of horses, which in turn led them to the selling and trading to other Indians such as the Kiowa and the Comanche. The Pueblo Indians also assisted the other tribes in how to raise and ride horses.

When the horse came along, there was a major shift in how the Indians lived. Webb estimates that a single horse and travois could move more goods than twelve dogs could pack (Webb 1931). Horses became extremely valuable commodities and eventually ownership of horses began to link to wealth. "Horses provided a universal medium of exchange in trade" (Masich 1997). Similar to that of using US dollars in exchange for goods or services, the Indians used horses. The horse became a status symbol to the nomadic tribes who continued to walk and use dogs (Josephy 1961).

This lesson will assist students in identifying the reasons why the horse was an important introduction to Plains Indian life. It will also provide students with the opportunity to understand how the horse brought about changes in lifestyle and impacted the Plains Indians in positive ways.

#### Purpose and Objectives

Students will decide which factors was a result of having the horse as transportation or not having the horse as a source of transportation. They will make a compare and contrast chart demonstrating the benefits of the horse to the Plains Indians.

#### Structure and Outline

*Materials:* book: *The Gift of the Sacred Dog* , by Paul deGobel, chart paper, sentence strips, picture of a horse, markers tape, and book

*Timing:* 60 minutes

*Structure:* whole class discussion and shared reading, small group work constructing chart and writing

*Children Will :* Listen to a story depicting how the horse changed the lives of the Plains Indians. Write sentences, and create chart.

*Teacher Will:* facilitate, read story, and help when needed.

#### Procedure

1. Read story to class pausing and recording important details in story of how the horse affected the lives of the Plains Indians.
2. Have students retell details of story and make comparisons to what life was like before the horse to life after the horse orally.
3. Instruct students to work together in small groups and write their before and after horse sentences on the sentence strips and tape them on the correct side of the chart.
4. Have students share charts and discuss peers conclusions.

### Assessment and Monitoring

Look for students ability to use long term memory as they recall what they have learned about the way the horse had changed the lives of the Plains Indians. Evaluate students ability to vocalize differences in lifestyles and ability to understand why they change occurred. Watch as students work together to discuss and complete their charts.

### Reflections, Extensions, and Emergent Curriculum

It is important for students to understand that the Natives did not always have the horse as a means of transportation. This activity is designed to allow students to understand the complexities in how ones life could change with such a simple addition, and how people adapted their lives to having a horse. Another extension to this activity could be the possibility of comparing life as it would be with wagons that the horses could carry.

## **Activity Plan: Buffalo and the Plains Indians: Interpersonal Intelligence**

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### Goals, Rationale, and Background Information

Hunting is one area of Native American culture that changed as a result of the Plains Indians introduction to the horse. Before the horse the Plains Indians had to be creative in the way they hunted the buffalo. For Instance, one way the Plains Indians would attempt to kill the buffalo would be to try and chase the buffalo off cliffs. Another way Plains Indians attempted to capture the buffalo would be when the men would dress like a baby buffalo and act like it was lost, as the buffalo would attempt to reclaim its baby the others would circle around it and use spears and arrows to kill the animal.

The Horse made hunting more efficient. With the acquisition of the horse the Indians were able to hunt animals with much greater skill and within a much greater area. In order to obtain a buffalo a warrior would ride his horse side by side with a buffalo in such a position that he could pierce the animal with a weapon, taking its life. Next the hunter would gather several hundred pounds of the buffalo and bring it back to his village (Masich 1997).

No part of the buffalo was wasted. Buffalo hide was by far the most important material available. It was used for such things as bedding, bags, tipi covers, winter robes, breech louts, and moccasin tops. The hair was mostly used for saddle pads, pillows, tope, halters and medicine balls. The rail provided the Plains Indians with whips, decorations, and fly brushes. The hooves and feet were used for glue and rattles. The horns made cups, spoons, ladles, and toys. The rawhide had the most uses. It was valuable in making drums, belts, saddles, stirrups, cinches, shields, bull boats, and knife cases. No part of the buffalo meat was wasted. Every part was eaten or dried and made into jerky or pemmican. Pemmican was made by pounding dried meat into powder and mixing it with melted fat and berries (Malls 1990).

Plains Indians hunters also brought in deer, elk, moose, mountain sheep, beavers, antelopes, mountain lions, coyotes, badgers, ermine, muskrats, and even rabbits. Elk and deer skins were mainly used for clothing, a whole skin serving for the dress of a small girl, two skins for the dress of a woman, and two skins for a man's shirt. The leftover scraps of elk and deer skin were sometimes used for soft moccasin uppers, while other scraps were cut for fringes or made into small bags. Even old dried pieces of skin were softened and used again and again. Hides of the furry animals were tanned with the fur on and used for bedding. Hides of medium-sized animals like the mountain lion and coyote were sometimes used whole for bags or quivers. Soft fur like that of rabbits was used in strips for the decoration of clothing and medicine objects.

The Pains Indians also used the buffalo for one other important material. They used what was called sinew thread to sew with. The process was not done easily, and took a skilled worker to complete the task. Sinew was obtained from buffalo, elk, moose and other animals. There was usually an ample supply in camp after the hunts, since every part of the animal was preserved for its special use. The prime sinew for sewing was taken from the large tendon which lies along both sides of the buffalo's backbone, beginning just behind the neck joint and extending in length for about three feet. It was removed as intact as possible to obtain the greatest length. The short piece of tendon found under the shoulder blade of the buffalo cow provided an especially thick cord of sinew, several lengths of which were sometimes twisted together for use as a bowstring. To prepare the string the moist tendon was cleaned by scraping it thoroughly with a piece of flint or bone. Before it was too dry, rubbing it together between the hands, after which the fibers of sinew could be stripped off with piece of flint, softened it. If the tendon was not prepared soon after it was taken from the body, or if the natural glue was not removed by immediate soaking in water, it became stiff and dry and had to be soaked until freed from the glue which clung to it. Then it was hammered and softened until the fibers could be stripped off readily. As the fibers were peeled off in lengths of from one to three feet, they were moistened with saliva and twisted by rubbing them against the knee with a quick motion until they acquired the proper degree of elasticity. The sinew was always carefully wrapped in a hide cover until it was to be used. Sinew could be kept indefinitely and even if it became too dry it could be soaked in warm water until its flexibility returned (Mails 1972).

The book *People of the Buffalo* will be used as motivation for this lesson. Students will be grouped together and asked to perform a task that will eventually lead into another group effort where students will understand why the Native Americans depicted buffalo in their expressive drawings and cave carvings.

### Purpose and Objectives

Students will have the opportunity to apply what they have learned or observed from the literature regarding the importance of the buffalo. Working cooperatively and creatively in their groups they will create a web, or diagram showing their knowledge of the buffalo. Groups are responsible for recognizing the buffalo as a source of survival and must make use of every piece of the animal, not wasting anything. Each group will

share their diagrams and will choose a valuable fact or idea to add to the class diagram. Together as a class we will review the diagram and each group will show their appreciation of the buffalo as they move towards the creative arts project.

### Structure and Outline

*Materials:* book: *People of the Buffalo* , chart paper, markers, scratch board, toothpicks, and interpersonal intelligence

*Timing:* 1hour 20 minutes

*Structure:* whole class shared reading experience, whole class discussion, group diagramming, group sharing, group presentation, group art project

*Groups Will:* listen to literature, engage in discussion, and work together present together

*Teacher Will:* read, demonstrate, conduct learning, monitor groups, listen, and record, give instructions.

### Procedure

1. Introduce the literature to children. Title, author, and brief summary.
2. Read the story to the children. Let students generate conversation and reactions to the text.
3. Put students into groups and explain their task: using every part of the buffalo not wasting any part of the animal. Make sure groups understand that they must record their group ideas on chart paper in some sort of orderly fashion (web, list, picture of buffalo with lines telling how each part will be used...)
4. Each group will present to the class and choose their best ideas to put on the class diagram.
5. Explain to groups that they to must show their thanks and appreciation of the buffalo for providing the Plains Indians with things to survive with by carving a scene into the scratchboard.

### Assessment and Monitoring

Look for students ability to work together and generate ideas as a group. Look for cooperation among group members and among the groups. Listen for respectful conversation and ability to share roles with in the groups. Target in on how other groups react to each other's ideas when sharing as a class. Listen to ideas about how the buffalo could be used towards the survival of the Plains Indians.

### Reflections, Extensions, and Emergent Curriculum

Usually every student enjoys this activity. I am always amazed at how many ideas they have about what to do with the parts of the animal. This activity will lead me into a stream of other group activities with similar open



endedness. I can pose situations and circumstances and have students solve the problems by using each others ideas and suggestions while they work in groups. Most of the time students are solving math problems and don't even realize it until closure time. This activity allows for kids to realize that there isn't always just one answer to everything.

## **Activity Plan: Plains Indian Housing, Naturalistic Intelligence**

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### Goals, Rationale, and Background Information

The Buffalo meant everything to the Plains Indians. "It was a forceful spirit that blessed the peoples with everything they needed to survive" (Mails 1972). As a result of the Buffalo being a transient animal and traveling in herds across miles of land the Plains Indians also became a nomadic people. The tipi was the ultimate dwelling for a transient people like the plains Indians. It enabled the Indians to stay warm in winter and cool in summer. Its design was sturdy and upright, yet was also very friendly in its assembly. Within an hour, two women could comfortably erect one into living quality.

The tipi consisted of a cover made of buffalo hides stitched together with sinew and stretched over a framework of poles. This framework was based around a tripod of extra strong poles that were tied together at the top. This support was then raised into position. Then, up to a dozen other poles were leaned against these support poles and tied at the top. Often a rawhide rope would run down from the top of the framework of the tipi. This would attach to an anchor peg, affixed to the ground inside the tipi.

The tipi framework was arranged in a cone shape. It was purposely asymmetrical, however. This asymmetry allowed for more headroom within the tipi, as well as permitting better ventilation as a result of an off-center smoke hole.

The hide covering was put in place by attaching it to a strong lifting pole and lifting it into position. Then the bottom edges would be pinned to the ground. Where the sides of the cover met eight lodge pins would act as a vertical seam. Next, the door flap would also be attached with a lodge pin. The final step in the assembly of the tipi was to insert two poles into the outer flaps of the smoke hole. These poles would stand on the outside of the tipi. These poles were adjusted to change the direction of the opening to compensate for wind direction or to close the hole in the event of rain or snow.

The completed tipi was about 15 feet in diameter. This provided ample living space for the Plains Indian family. The tipi was a place to be respected and a strict system of behavior governed its use. An open tipi flap was an invitation to enter. If the flap was closed, however, the visitor was to announce his presence and wait for the host to invite him inside. Upon entering the tipi a visitor would always go to the right. If invited to do so by the host, he would sit in the guest position to the left of the head of the family, who would sit at the rear.

Prior to the arrival of the horse on the plains, the tipi had to be smaller in size to be carried from place to place by the women and dogs. With the coming of the horse, however, this changed dramatically. One result was that lodge poles, which used to be only five to six feet high, now extended to an average of fifteen feet. By using three horses the dwelling could now be transported quite comfortably. Two horses would carry the many poles used in constructing the tipi while the third horse carried the heavy buffalo hide covering. By careful and precise folding, the large lodge covering could be reduced to a size that would fit nicely across a saddle. Now

the portable home was ready to move on – to be remade in a new location. This unit will provide students with a variety of facets to Native American life (food, dance, writing, and survival...). This lesson will add to the many facets and will provide students with the opportunity to view the teepee in books and poster form, discuss its parts and purposes. Communicate why it is a functional structure and construct one of their own as they rely on the environment to provide for its parts.

### Purpose and Objectives

Students will identify with the teepee as a logical and ingenious structure that provided the Plains Indians with shelter. They will analyze the teepee and its parts and make logical and coherent conclusions about its parts and their functions. They will decide what makes the teepee a good source of shelter, and what might make it a poor source of shelter. Students will then use their materials they collect from the hike at East Rock to construct a teepee on their own.

### Structure and Outline

*Materials:* book: *The Tipi (Native American Houses)* , poster of the teepee, chart paper, collected materials from the hike

*Timing:* two day project: day #1- teepee discussion, day #2- hike in woods and teepee construction.

*Structure :* whole class discussion experience, whole class hike, individual teepee building.

*Children Will:* discuss, hike, and construct

*Teacher Will:* facilitate, lead hike, explain and answer questions

### Procedure

1. Read book to students and then discuss pictures from book. Introduce teepee poster. Let student's view and discuss parts and functions of the teepee.
2. Chart reasons it provided the Native Americans with good shelter and poor shelter.
3. Explain to students they are going to be going on a hike to collect materials from the "natural world" to make a teepee of their own tomorrow.
4. Talk about what kinds of materials students might want to collect.
5. Go on hike. While on hike ask question: What kinds of resources do you think you would like to use that may not be here now at this time of the year?
6. Construct teepees and have students share their designs with the class.

## Assessment and Monitoring

Be attentive to students' ability to plan ahead and adapt themselves to the environment and its resources they might select to build their teepee. Assess students building skills and designs making sure they have vocalized reasons as to why their teepee is designed the way it is.

## Reflections, Extensions, and Emergent Curriculum

The best part of this activity is the hike. Most students will be able to connect and dive right into the naturalistic setting. Using this activity as a model I will continually make an effort to visit the surrounding environment during all the seasons and as a class record what and how it has changed as the Plains Indians did as means of survival.

## **Activity Plan: Plains Indian Pictographs, Linguistic Intelligence**

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### Goals, Rationale, and Background Information

The Indians of the Great Plains did not have a written communication system as we have today. They relied on sign language as well as a symbol written language in which they communicated with pictographs. The writings usually were done on rocks, cave walls, buffalo hides, or on a tipi. The Plains Indians pictographs appear to have been drawn in simple pictorial symbols, or representational form. The symbols would act as a guide or reminder to the storyteller's important memorized details and lessons. Symbols appeared both in isolation and in combined representations, which would prove to make compound meanings. Some pictograph writing may have been simply decorative. For example crosses rectangles, circles, spirals, and other simple designs. However, other pictograph writing could be for the recording of events, dates, ceremonies, warnings, directions, territorial postings, or even maps (Cole 1990). Some pictograph writings could identify cultural relationships, patterns of communication, evidence of trade or other cultural contacts.

Pictograph writings have told many things about the Plains Indians. They were able to depict human figures that were often wearing necklaces, belts, and headdresses. Some forms of the writings included pictures of buffalo and men with bows and arrows that would be dressed in animal skins stalking their prey (Robbins 2001). Other styles included that of the horse which proves to document the arrival of it in the 1600's. To develop concepts of symbol writing in conjunction with reading and interpreting stories developed by the students. One other purpose of picture writing could have been to record some type of calendar or to track seasons. As the Plains Indians were, at first, hunters and gathers as well as extremely aware of the seasons, plants, and animals that would be available for food during each season, picture writing may have been a way for them to record what was available to them during each season. "Some researchers propose that specific panels or designs, in conjunction with the movement of sun or shadow across the panel, could have provided them with a calendar of the seasons" (Cole 1990). During this lesson students will identify and understand the purpose of picture writing and develop an appreciation for language as a source of communication. A wonderful piece of literature will aid in developing these concepts, as well as the creation of a story on mock deerskin using symbols we develop as a class to represent words.

## Purpose and Objectives

Learning to read involves a process of decoding a symbol system. This activity will support that process as students learn to connect symbols to words and expand them into coherent stories through the use of language. Children will identify with The Plains Indians as a group of Native Americans who told stories and recorded other pertinent information through symbols rather than a written language like the one that exists today. The literature selected will model how and where the Native Americans used symbol writing, types of language used by the Native Americans, and the type of structure and events that Native American literature carries.

## Structure and Outline

*Materials:* *The Legend of Indian Paintbrush* , mock deerskin, chart paper, pencils, crayons

*Timing :* 1hour 20 minutes

*Structure:* whole class shared reading experience, whole class symbol construction, individual writing, and individual sharing.

*Children Will:* listen to literature, devise a symbol system, construct their own story, and share their stories verbally

*Teacher Will :* read, demonstrate, conduct learning, monitor students, and listen

## Procedure

- 1 . Introduce piece of literature to children. Title, author, and brief Summary
2. Read the story to the children. Let students generate conversation and reactions to the text. Use questioning skills to draw out idea of symbol writing if it does not come up. Be sure to let students run the conversation and generate ideas about symbol writing (constructivist approach).
3. Invite students to create some of their own symbols for words they think would be useful to them if they had to write their own Native American story with symbols.
4. Share mock deerskin with students and invite them to write their own Native American story on the skin only using symbols like the Native Americans did.
5. In a circle share their symbol stories with each other. Students will use linguistic intelligence to enhance and detail their story as they read the symbols.
6. Display stories in classroom.

## Assessment and Monitoring

Look for student's ability to listen, and react to the teacher and the literature, ability to make connections between symbol and word, ability to read symbol story with narrative voice, and courtesy to listen to peers as they share. Elicit conversation about Indian symbols in text and try to compare and contrast how some are more easily decodable than others.

## Reflections, Extensions, Emergent Curriculum

This activity sparks an interest in writing in other forms. From here I usually have the students write out their stories using words so that they can make a comparison between the symbols and their words. They also recognize how language plays a part in making their symbol stories come to life with detail. We will make transference of this activity to mathematics and problem solving, where certain words mean certain operations. Students can also draw pictures to the math problems. Putting the words into visually friendly symbols helps to generate an authentic understanding of "how I went about getting the answer "instead of "did I get it right?"

## **Activity Plan: Maize, A Native American Food, Mathematical Intelligence**

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### Goals, Rationale, and Background Information

Many of the Indians of the Great Plains did not plant crops with the exception of a little tobacco. Most of them were hunters and gatherers eating wild fruits and berries. However, the Pawnees, Rees, Mandans, Hidatsas, and Plains Apaches tribes were cultivators of the land and succeeded at planting corn. Corn or maize is a domesticated plant of the Americas. Along with many other indigenous plants like beans, squash, melons, tobacco, and roots such as Jerusalem artichoke, European colonists in America quickly adopted maize agriculture from Native Americans. Crops developed by Native Americans quickly spread to other parts of the world as well.

Over a period of thousands of years, Native Americans purposefully transformed maize through special cultivation techniques. Maize was developed from a wild grass (Teosinte) originally growing in Central America 7,000 years ago. The ancestral kernels of Teosinte looked very different from today's corn. These kernels were small and were not fused together like the kernels on the husked ear of early maize and modern corn. By systematically collecting and cultivating those plants best suited for human consumption, Native Americans encouraged the formation of ears or cobs on early maize. The first ears of maize were only a few inches long and had only eight rows of kernels. Cob length and size of early maize grew over the next several thousand years which gradually increased the yields of each crop (Prindle 1994).

Eventually the productivity of maize cultivation was great enough to make it possible and worthwhile for a family to produce food for the bulk of their diet for an entire year from a small area. Although maize agriculture permitted a family to live in one place for an extended period of time, the commitment to agriculture involved demands on human time and labor and often restricted human mobility. The genetic alterations in teosinte changed its value as a food resource and at the same time affected the human scheduling necessary for its effective procurement.

As the life ways of mobile hunting and gathering were often transformed into sedentary agricultural customs, very slowly the cultivation of maize, along with beans and squash, was introduced into the southwestern and southeastern parts of North America. The practice of maize agriculture did not reach southern New England until about a thousand years ago. A Penobscot man described the transformation of maize for the shorter growing season of northern New England. Maize was observed to grow in a series of segments, like other members of the grass family, which took approximately one phase of the moon to form, with approximately seven segments in all, from which ears were produced only at the joints of the segments. Native Americans of northern New England gradually encouraged the formation of ears at the lower joints of the stalk by planting kernels from these ears. Eventually, as ears were regularly produced at the lower joints of the cornstalk, the crop was adapted to the shorter growing season of the north and matured within three months of planting (Prindle 1994).

Native Americans of New England planted corn in household gardens and in more extensive fields adjacent to their villages. Fields were often cleared by controlled burning which enriched not only the soil but the plant and animal communities as well. Slash and burn agriculture also helped create an open forest environment, free of underbrush, which made plant collecting and hunting easier. Agricultural fields consisted of small mounds of tilled earth, placed a meter or two apart sometimes in rows and other times randomly placed. Kernels of corn and beans were planted in the raised piles of soil to provide the support of the cornstalk for the bean vine to grow around. The spaces in between the mounds were planted with squash or melon seeds. The three crops complemented each other both in the field and in their combined nutrition (Prindle 1994).

Native Americans discovered that, unlike wild plants and animals, a surplus of maize could be grown and harvested without harming their environment. Tribes in southern New England harvested great amounts of maize and dried them in heaps upon mats. The drying piles of maize, usually two or three for each Narragansett family, often contained from 12 to 20 bushels of the grain. Surplus maize would be stored in underground storage pits, ingeniously constructed and lined with grasses to prevent mildew or spoiling, for winter consumption of the grain.

Many Native American traditions, stories and ceremonies surround corn, one of the "three sisters" (maize beans and squash). Even in New England there are many variations on how maize was brought or introduced to Native Americans here. Generally in southern New England, maize is described as a gift of Cautantowwit, a deity associated with the southwestern direction; that kernels of maize and beans were delivered by the crow, or in other versions the blackbird. Responsible for bringing maize, the crow would not be harmed even for damaging the cornfield. Other Algonquian legends recount maize brought by a person sent from the Great Spirit as a gift of thanks (Prindle 1994).

New England tribes from the Mohegan in Connecticut to the Iroquois in the Great Lakes region had rituals and ceremonies of Thanksgiving for the planting and harvesting of corn. One ceremony, the Green Corn ceremony of New England tribes, accompanies the fall harvest. Around August Mahican men return from temporary camps to the village to help bring in the harvest and to take part in the Green Corn ceremony which celebrates the first fruits of the season. Many tribes also had ceremonies for seed planting to ensure healthy crops as well as corn testing ceremonies once the crops were harvested.

### Purpose and Objectives

Students will understand the importance of corn to the Plains Indians. They will look at corn kernels on a cob, cornmeal, popping kernels, and the husks of a shucked ear of corn. They will draw diagrams and label them

based on what they see and observe. They will identify that corn was a staple that could be used all year around after harvesting. They will make a list of all foods they eat that contain corn. Students will plant a garden with the three sisters and reflect on its growth, recording observations, measurements and care instructions in a science journal.

### Structure and Outline

*Materials :* Book, *Corn is Maize: the Gift from the Indians* , chart paper, markers, corn kernels, corn on the cob, cornmeal, popping kernels, squash seeds, bean seeds, corn seeds, soil

*Timing:* one day for the book, three to five weeks for the three sisters garden and science Journal

*Structure:* whole class reading of *Corn is Maize* , small group investigation of corn items, whole group discussion of findings, small groups for construction of lists, and small groups will plant several plots of the three sisters, individual science journal writing

*Children Will:* listen to story, investigate, observe, write, record, measure and reflect

*Teacher Will:* read, give directions and facilitate and help when needed

### Procedure

1. Shared reading of *Corn is Maize* .
2. Discussion of story and its key elements involving the relationship between the Indians and corn.
3. Investigate the corn products, draw diagrams and label the parts.
4. Make lists of foods that are made with corn products
5. Discuss and review the three sisters. Plan out the plots for the three sisters' garden
6. Record growth, measurements, and observations in science journals

### Assessment and Monitoring

Look for evidence of understanding the importance of corn in the Native American culture. Look for connections of how many things we eat today have corn in them. Enrich student thinking while garden grows on how corn stalk becomes a pole for the beans to grow on and how squash surrounds stalk. Elicit students to share and make connections in their science journals.

### Reflections, Connections, and Emergent Curriculum



This lesson lends itself to be extremely diversified in that it cuts across many curricular areas. It is very hands on and provides the students the opportunity to grow squash, beans and corn from seeds. From this lesson you can continue in the science discipline and study the water cycle, germination of a seed and may other important cycles .

## **Activity Plan: Plains Indian Beading, Mathematical & Kinesthetic Intelligence**

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### Goals, Rationale, and Background Information

Before the arrival of European explorers and settlers, the native peoples of the vast eastern woodlands, stretching for the New England coast to the Great Lakes, decorated their clothing, moccasins, pouches and other personal accessories primarily with dyed porcupine quills. The porcupine, surviving on a diet of tree bark, leaves and tender branches, was an inhabitant of the northern forest and was most commonly found from upstate New York into the Upper Midwest. Its barb-ended quills not only provided the natives with a material in which to make and produce their crafts, clothing, and decorative accents, but also defended the slow moving rodent from enemies such as wolves, and dogs of fur trappers. Native Americans carefully removed the hollow quills from the porcupine's body and tail, sometimes without even killing the animal, sorted them by size, as some quills could measure five inches in length, and dried them. Using natural dyes the tan and dull white quills were dyed striking shades of red, yellow and black. The quills were then softened by being chewed, flattened and attached to the leather or cloth (in the later years) being decorated. The flat quills could be worked with in a number of ways. They could be wrapped around strips of sinew (buffalo tendon) or threaded and sewn to the surface, or could be woven over and under warp threads of a loom to produce an effect like beadwork. Some more experienced quill workers could take quills that were as small as one eighth of an inch wide and splice them together to form long seemingly unbroken pieces (Shaw 1993).

"Quill work spread from the woodland nations to the Plains, where the porcupine was not native. Quills became one of the chief materials to commerce between nations as Plains Indians had to trade with their eastern neighbors" (Shaw 1993). This was changed dramatically when trappers and traders introduced glass beads to both groups in the early 1800's. Plains Indians were intrigued and fascinated with the shimmer and color of the glass. The ease of working with beads, which required no dyeing, hunting, softening, flattening, and simplicity of threading and sewing brought ready and enthusiastic acceptance from all but the die hard traditionalists who thought them a cheap substitute.

Although beadwork soon became dominant, quillwork retained its champions and never completely died out, and the two mediums were sometimes combined very successfully.

The first beads brought by trappers and traders were called pony beads because pony teams transported them. These beads were usually only blue or white in color. By the 1840's much smaller and more versatile beads were available in a great variety of colors. These beads soon took favor over the larger pony beads. Beads were so highly regarded and used by the Native Americans that traders who were primarily interested in beaver and other fur pelts, found beads to be more effective in trade and barter because of their high demand among the Indians.



Loom Beadwork among the Plains Indians is rarely seen. Even for narrow strips such as brow bands and armbands the beads were sewed directly to the cloth or buckskin. The Plains Indians used more beadwork than the Woodland Indians, and they used heavier Buckskin or Elk skin. The Skins of the Plains Indians were not as soft as the smoke tanned buckskin of the central woodland Indians, nor were they as thin. Therefore they used sinew to sew on their beads, which being stiffer than tread, helped to embed the beads tightly in the hide.

Women did most if not all bead and quill work. Therefore, most crafts reflect a feminine point of view. Indians on the Plains practiced a sharp division of labor, the men hunted and defended while the women cared for the children and elders, and tended to the crops, cooked and made clothing.

Beadwork reached its highest level of sophistication among the Plains Indians, particularly the Western Sioux. In later years of the nineteenth century, some craftswomen went to great lengths to produce buckskin war or ceremonial shirts and dresses covered with elaborate decorative beadwork, paint, shells, or hair locks, and edged with rawhide fringe. When covered with beadwork these pieces of clothing could become increasingly heavy weighing five to seven pounds. "However, as the native civilizations declined, the shirts became more and more elaborate and were worn with enormous pride by their makers and owners as emblems of their oppressed and vanishing cultures (Shaw 1993).

#### Structure and Outline

*Materials:* Book: *Bigbook of Indian Beadwork Designs* by Kay Dohesty Bennett, beads of differing materials (wood, plastic, glass), string,

*Timing:* 1hour

*Structure:* whole class viewing and discussion of beading patterns, colors and designs of pictures and captions in the book. Individual planning on paper of student's design and pattern, and individual construction of the student's necklace.

*Children Will:* listen to literature, attend to designs and recognize patterns of colors and shapes, make a plan of necklace, and construct necklace.

*Teacher Will:* read, demonstrate, and verify student's analysis of designs and patterns conduct learning, monitor students, and listen

#### Procedure

1. Introduce book to students. Title, author, and brief summary. Give background information about beading and the influence and importance of beading and decorating to the Plains Indians.
2. Conduct a picture walk with the children. Let students generate conversation and reactions to the pictures and reflect on the use of color, patterns, shapes and designs the Plains Indians used. Use questioning skills to draw out idea of beading as a craft and talent. Be sure to let students run the conversation and generate ideas about ideas and conclusions they may have regarding pictures of clothing, shoes, headdresses, jewelry and other Plains Indian items.
3. Give Students the opportunity to sketch a design on paper of a design or pattern they might

like to use for their necklace.

4. When students are finished with their plan, have them select material they will need to construct their necklace.

5. Share designs and patterns with class as we put on our beaded necklaces.

### Assessment and Monitoring

Look for student's ability to see color, identify patterns, name shapes and observe designs in pictures in the book. Elicit conversations about sizes of beads and their impact on the designs and patterns. Monitor students thinking and planning as they make a sketch of what they are going to create.

### Reflections, Extensions, Emergent Curriculum

This activity gives students the opportunity to not only view the beautiful creations of the Plains Indians, but create their own piece of jewelry to identify with and take home with them. The lesson is critical in developing patterning skills that assist in the process of learning how to read, as well as reinforcing math concepts taught during the year. It also assists those students struggling with fine motor skills as they use their hands to thread the string and put the beads of differing size together.

## Children's Reading List

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Adams, McCrea (2001). *Tipi (Native American Homes)*. The Rourke Book Co.: New York.

This book provides some good information about Native American homes. It discusses how, why, where and by whom each type of dwelling was built.

Aliki, (1976). *Corn is Maize: The Gift of the Indians*. Harper Trophy: New York, NY.

Great story of how Indians years ago found and nourished a wild grass plant and made it an important part of their lives.

Bruchac, Joseph, Caduto, Michael J., (1991). *Keepers of the Animals: Native American Stories & Wildlife Activities for Children*. Fulcrum Publishing: CO.

This book demonstrates the power and importance of animals in Native American traditions and gives children important concepts about wildlife ecology and environmental awareness.

Bruchac, Joseph, Caduto, Michael J., (1994). *Keepers of Life: Discovering Plants through Native Stories and Earth Activities for Children*. Fulcrum Publishing: CO.

This book contains 18 Native American stories from Plains Indian tribes such as the Cherokee, Inuit, and Cheyenne. The stories help

children to understand botany, plant ecology and the natural history of Native American plants and medicines.

Cohlene, Terri, (1990). *Dancing Drum: A Cherokee Legend*. Troll Communications: N.Y.

Dancing drum is a legend about a little boy who is trying to save his people from the wrath of the sun. This book aids in demonstrating to children how people can work together to solve problems in every day life.

Cohlene, Terri, (1990). *Little Firefly, An Algonquian Legend*. Watermill Press: New York.

This book helps children understand the concept of a legend as it contains all the parts of a legend. Like the story of Cinderella it draws similarities in that a sky maiden (Little Firefly) wins the heart of a brave warrior despite the cruel intentions of her older sisters.

DePaola, Tomie, (1988). *The Legend of the Indian Paintbrush*. GP Putnam's Sons: New York.

Little Gopher is a talented artist who records and paints pictures of the happenings of his tribe. As he grows older he is come to be known as Indian Paintbrush. Great book for teaching children how the native Americans communicated with each other and recorded historical events through pictographs.

Campbell, Maria, (1992). *People of the Buffalo; How the Plains Indians Lived* . Douglas & McIntyre Ltd.:

A nice descriptive book on how the buffalo was an important part of Plains Indian life. Includes descriptions and pictures on how Plains Indians worshiped, and made use of the buffalo as a means of survival.

Clark, Ann, (2000). *Bringing of the Mystery Dog* . Kiva Publishing Inc., CA

A story of a young boy who in his quest for bravery brought back the first horse to his people. An excellent resource for children to learn the impact of the horse on Plains Indian life.

Doherty, Kay Bennett, (1999). *Big Book of Indian Beadwork* . Dover Publishing: New York.

This is a great resource for children to use to view some pictures of Native American Beading. The book discusses and demonstrated in detail patterns, designs, colors and techniques of Native American beading.

Freedman, Russell (1995). *Buffalo Hunt* . Holiday House: Boston

This book has an abundance of paintings and drawings of artists who traveled west in the 1800's. The author writes of different ways the buffalo was hunted and stresses the importance of it to the Plains Indians. This book contains paintings from such artists as George Catlin, and Karl Bodmer for children to view.

Goble, Paul, (1984). *Buffalo Woman*. Bradbury Press: N.Y.

Another great legend for children to read depicting the importance of the buffalo and respect for nature the Plains Indians had.

Goble, Paul, (1991). *Iktomi and the Buffalo Skull* . Orchard Books: N.Y.

This book makes reference to the Sun Dance of the Plains Indians. Its main character, Iktomi, a pompous trickster dresses himself in full ceremonial regalia to impress the girls in a nearby village. He is distracted by another pow wow and is tricked into putting a sacred buffalo skull on his head.

Goble, Paul, (1994). *The Great Race of the Birds and Animals Birds and Animals* .

MacMillan Publishing Co.: New York, NY.

This book aids in teaching children the struggles between the Plains Indians and the buffalo. Its legend gives an interesting twist on the relationship and explores how it came to be that the two legged hunted the four legged rather than visa versa.

Goble, Paul, (1999). *The Gift of the Sacred Dog* . Bt Bound: NY.

A great source of literature that teaches children the importance of the horse and its impact on Plains Indian Life.

McGovern, Ann, (1993). *Pilgrim's First Thanksgiving* . Scholastic Inc.: New York.

This book introduces children to the struggles Pilgrims faced during their first years at Plymouth. The book describes their highs and lows of daily life through their first seasons. It concludes with a descriptive chapter on the First Thanksgiving shared by the Indians and the Pilgrims.

Shemie, Bonnie, (1990). *Houses of Bark* . Tundra Books: Montreal, Canada.

A great book teaching children how among all the uses of bark (canoes, food, clothing...) there was no greater skill and inventiveness as the way it was used to make the Tipi and other forms of sacred structures and housing.

Watson, Jane Werner, (1980). *The First Americans: Tribes of North America* . Pantheon: New York.

A great source for children to use to clarify the different tribes of North America, their customs, traditions, beliefs and geographical locations.

## Teacher Reading List

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Binding, Louise Erdrich, (1999). *Birchbark House* . Hyperion Press: New York.

A descriptive book on the daily life of a native American Family from the 1800's. Gives great background information on everyday chores such as tanning hides, picking berries and scaring crows from the cornfields.

Cleary, Linda Miller, & Peacock, Thomas D. (1998). *Collected Wisdom: American Indian Education*. Allyn & Bacon: Boston MA.

This book is great for teachers who currently teach in classrooms of varying cultural needs. Helps teacher learn about their students and enhance their awareness, and flexibility in teaching methods to meet the need of today's diverse classrooms.

Cole, Salley J. (1990). *Legacy on Stone Rock Art of the Colorado Plateau and Four Corners Region*. Johnson Books: CO.

Excellent reference and guide on the different rock and art symbols and their possible meanings. The author discusses possible records of past ideas and practices of the plains hunters and gathers.

Douglas, Branch, Douglas, Edward, Dobie, Frank J, (1997). *The Hunting of the Buffalo*. Appleton & Co.: NY.

A great account of the buffalo, its extermination, its importance to the Plains Indians. The book includes varying types of sources like

old letters, diaries, and tales of frontier travelers.

Hunt, Ben W., (1951). *American Indian Beadwork*. Bruce Publishing Co.: NY.

A great resource for teachers to use on the history of beads and Indian bead trade. Offers descriptions and pictures of different designs done by different tribes and detailed descriptions on beading techniques.

Josephy, Alvin M., (1998). *500 Nations: An Illustrated History of North American Indians*. Random House: New York.

This book parallels the PBS series 500 Nations. It is a complete history of many depths of North American native peoples.

Mails, Thomas E. (1972). *The Mystic Warriors of the Plains*. Doubleday Publishing: NY

A complete guide to the cultures, art, crafts and religion among the Plains Indians.

Masich, Andrew E. (1997). *Cheyennes and Horses : A Transportation Revolution on the Great Plains*. History News: V52.

A fantastic book outlining the influence of the horse on the Plains Indians. A Historical perspective gives the reader background and endless information about this transportation revolution.

Monroe, Jean G, Williamson, Ray, (1993). *First Houses: Native American Homes and Sacred Structures*. Houghton Mifflin: NY.

This book discusses tribal history and lifestyles of 10 tribes. It provides teachers with myths used to explain the significance of house design. An excellent resource for teachers seeking background knowledge on Native American homes.

Patterson, Alex , (2001). *Field Guide to Rock Art Symbols of the Greater Southwest* . Johnson Books: NY.

This is a great reference in giving teachers over 500 illustrations that closely match a symbol. This book captures the essence of Picture writing and its purposes among Plains Indians.

Prindle, Tara, (1994). *Native American History of Corn* . Nativetech.org: 2003.

This website is great for giving background information and detailing the history of corn and its impact on Native Americans.

Robbins, Jim, (2001). *In Once Lost Books, The Code Behind Indian Rock Art* . New York Times: NY.

Great book to help the reader understand how to interpret symbols and create stories and history from rock art carvings.

Shaw, Robert, (1993). *Americas Traditional Crafts* . Macmillian Publishing: New York.

This book is filled with great illustrations of Native American crafts from the early 1800's. It offers great pictures of beading, clothing, and everyday tools.

Smith, Monte (1983). *Technique of North American Indian Beadwork*. Eagle's

View Publishing: Utah.

This book gives readers great background knowledge for those beginning to learn about doing beadwork. The book offers teachers designs, colors, pictures and patterns of Native American artifacts.

Stirling, Matthew (1955). *West Indians of North America: A Historical Panorama*. National Geographic: Washington.

A great historical overview of the west Indians of North America. Full of facts, information and connections among the culture.

Taylor, Colin F., (1998). *Buckskin & Buffalo: The Artistry of the Plains Indians* . Rizzoli: New York.

This book is a great resource for teachers to help with the understanding of documentation of historic events and daily life on buffalo hide.

Weatherford, Jack., (1988 ). *Indian Givers: How the Indians*

of the Americas Transformed the World. Fawcett Columbine: New York.

The book compares and contrasts the world of the native Americans and the World of the Europeans. It discusses important contributions that have been made by the Indian civilizations of America to world culture.

Webb, Walter P. (1931). *The Great Plains* . Ginn & Co.:NY.

The book discusses the challenges faced by those living on the plains.

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