

GRAB

Educational Guide

Grades 3-12 & Higher

Science • Language Arts • Social Studies • Economics • History



NAPT



VisionMaker



OBJECTIVE

These lessons are created as a unit for grades 3-12, but can be used for higher educational purposes. The GRAB unit is designed to provide an understanding of Laguna Pueblo traditions and insights into various cultural dynamics; specifically the history and background of ‘grab days’ or ‘throw days’ among the Pueblo people.

- Students will gain a deeper understanding and appreciation of the Pueblo Tribes in New Mexico and the diversity that surrounds the area;
- Students will gain a deeper understanding and appreciation for Native American culture and traditions, and the cultural dynamics that weave throughout their daily lives;

The unit will centralize on five curricula content areas: Science (Earth Science, Life Science, Physical Science, Chemistry), Language Arts, Social Studies, Economics and History. The Common Core Standards, National Standards in Science Education (National Research Council) and National Standards for Social Studies (National Council for Social Studies) will be used throughout the unit. Most lessons are designed to be 45 minutes to 1 hour in length and can be adapted to meet classroom needs.

Background of Laguna Pueblo

In the film *GRAB*, it mentions that there are six villages and there is a Catholic church associated with each village.

- **Old Laguna Village** (*main village*) – Saint Joseph; Feast Day is March 19 & September 19
- **Seama Village** – Saint Ann; July 26
- **Paraje Village** – Saint Margaret-Mary; October 17
- **Encinal Village** – Nativity of the Blessed Virgin Mary; September 8
- **Paguete Village** – Saint Elizabeth; September 25
- **Mesita Village** – The community honors three Saints on their Feast Day – (first original church, Saint Anthony Padua; when they rebuilt the new church it became Sacred Heart of Jesus; presently the community honors Saint Assumption of Mary); August 15

Significance of Pottery

One of the highlights of the film ‘Grab’ captures the significance of pottery among the Pueblo people. Pottery is valued as a ceremonial piece, holding the rain, the prayers of the people and the stories. Each potter has their own style of creating pottery, along with their own designs that tell stories of place. The designs can be passed down within families, clans or emerge from the potter for specific reasons.

In the case of the pottery being thrown at the beginning of the Grab Day, it symbolizes the action of rain, the gift to the people. This is why the pottery contains water, in hopes that the water sprinkles among the people as a blessing of rain.

Subject

Social Studies
Physical Science

Grade Level

9-12

Time Duration

45 minutes - 1 hour
x2 classes

Activity

- Independent activities*
- Peer tutoring*
- Hands-on*
- Technology integration*
- Learning centers*
- Primary document analysis*
- Role play*
- Viewing a video/DVD*
- Cooperative learning*
- Simulation*
- Whole group instruction*
- A project*
- Mini-lecture*
- Journal writing*
- Debate*
- Other* _____

Lesson Overview

Historically, Pueblo pottery was used primarily for utilitarian purposes, mainly for cooking, storage and holding liquid contents. Today, Pueblo pottery is prized as a unique art form, blending both historical and contemporary shapes and designs. Pueblo pottery is known for its distinctive artistry and varies among the 19 Pueblos of New Mexico. Laguna Pueblo pottery is classified as polychrome pottery made with 1-2 colors; usually black, brown, red and orange.

Laguna Pueblo pottery is made from clay found around the local area of the Laguna community. The clay is dug up from local quarries, soaked, sifted and then grounded into flour like consistency. This process takes around 1-1.5 weeks, with the end result looking like a thick pulp. To add to the firmness, stability and to prevent shrinkage of the raw clay a temper is needed. The temper consist of collecting and grinding up local pottery shards into a flour like consistency, and adding this to the pulp mixture (shard temper can be substituted with fine blow sand, crushed sandstone, igneous or metaphoric rock). Once the clay sets the potter then molds the clay into the desired art form using a pinch pot or coil method. Next, the desired art piece dries for up to a week (drying time depends on the thickness and size of the art piece). The potter then smoothes out the rough areas of the art piece by using sand paper or other sanding/scraping material. The art piece is then rubbed with a wet cloth to help redistribute the surface particles where scratches may have occurred from sanding. Several coats of a white slip is brushed on and then burnished (polished) to a dull shine. The potter then applies the design work and then adds natural or commercial paints to bring life to the design. The art piece is then fired using one of two firing methods, outdoor firing or kiln firing.

Methods of Producing Clay

Clay found within the Laguna Pueblo environment is processed by soaking the raw clay rock in water for ~ 3-4 days. The clay is sifted and resifted until most impurities are sifted out. The water will eventually evaporate from the clay contents, leaving a pulp mixture.

Methods Used to Create Tempers

Through using a scientific process, the Pueblo Tribes discovered that using a temper to add to the raw clay added to the firmness and stability for molding art pieces. In some cases, using the right amount of temper and firing at a high temperature also provides water proofing to the art piece. Some Pueblo communities use fine blow sand, crushed sandstone, igneous or metaphoric rock. The potters from Laguna Pueblo prefer to use grounded potsherds. Potsherds are collected around the local landscape and are remnants that the ancestral Pueblo people left behind. In essence, Pueblo potters understood the concept of recycling goods and commodities. The methods for grinding shards vary, using two types of processes, dry grinding or wet grinding. Both processes are high in applied forces found within laws of motion.

- For dry grinding, the shards are crushed down applying physical force with a large, heavy tool (rock or hammer). Then the shards are placed on a grinding surface and wedged between the surface and a grinding tool, they are ground until impurities are weeded out. This takes several attempts, since the grounded shards have to be sifted and resifted to weed out the impurities.
- For wet grinding, the shards are soaked for 3-4 days and then grounded down until the consistency exhibits the texture of flour. This takes several attempts, since the grounded shards have to be sifted and resifted to weed out the impurities.

Creating Pottery Slips

Most potters among the Pueblo communities use some type of clay slip. Depending on the style, the slip can be the clay itself. Water is added to dilute the clay to form a thick paint that is applied in several coats to the art piece. The slip acts as a binding agent, absorbing color pigments to the clay. For Laguna pottery, a white slip is used for this process.

Resources

- <http://www.ippc.org>
- <http://www.collectorsguide.com/fa/fa024.shtml>
- Maxwell Museum, University of New Mexico
- <http://www.corestandards.org/>
- <http://www.socialstudies.org/standards/execsummary>
- <http://www.nmclay.com>
- *Messages from the High Desert*. Clint Swink (2004).
- *Talking with Clay: The Art of Pueblo Pottery in the 21st Century*. Stephen Trimble (2007).
- School for Advanced Research, Santa Fe, NM.

National Standards

National Science Educational Standards
(National Research Council)

NSES Content Standard B; Physical Science: Chemical reactions.

Chemical reactions may release or consume energy. Some reactions such as the burning of fuels release large amounts of energy by losing heat and by emitting light.

National Curriculum Standards for Social Studies
(National Council for Social Studies)

Social Studies Standards - Culture

Through the study of culture and cultural diversity, learners understand how human beings create, learn, share, and adapt to culture, and appreciate the role of culture in shaping their lives and society, as well the lives and societies of others. In schools, this theme typically appears in units and courses dealing with geography, history, sociology, and anthropology, as well as multicultural topics across the curriculum.

Materials & Resources

- Photos of pottery process (provided in appendices/website of this unit)
- Commercial Clay (www.nmclay.com)
- Containers to put water in (used and washed out margarine containers work well)
- Tap water
- Gourd or kajape (wooden spoon)
- Newspaper
- Art pallet for making slip (lids of margarine containers work well)
- Paint brushes (medium size, 1/2" – 1" thick)

Essential Questions

What steps does a Laguna Pueblo potter have to take to create clay? Why?

Prerequisite

Students should preview the GRAB film time codes to this activity.

Time Duration

45 minutes - 1 hour
x2 class periods

Assessment

Completed vessel

NOTES TO TEACHER



If possible, bring clays from the local areas to compare. Also look for local potters to share their knowledge and skills of pottery making.



Laguna Pueblo children grab the food items being tossed from the rooftop above. Image courtesy of Idris + Tony.



PROCEDURE

- Review the Overview of Lessons with students, introducing them to the background and history of Pueblo pottery.
- [For this activity, you will need to access the pictures of the pottery making process; 2 sets—Processing Clay & Building Pots].

Student Objectives

Students will develop an understanding and appreciation of how Pueblo pottery is created.

ACTIVITY **1**

Watch the documentary film **GRAB** video clip “Traditional Pottery” online at www.nativetelecom.org/education/grab. After watching the film, students will engage in a brief discussion on the process Josie Seymor used to create her pottery for the Grab Day. Discussion should include the significance of the pot for this special day. Share the photos of the pottery making process.



Why did Josie take care to make a special pottery each year? What does the pottery mean to the Pueblo people? How is it made?



<p>#1 Clay Vein</p> 	<p>#2 Raw Clay</p> 	<p>#3 Raw Clay Broken Up</p> 	<p>#4 Breaking Up Clay Further</p> 
<p>#5 Pounding & Sifting Clay</p> 	<p>#6 Sifting Raw Clay</p> 	<p>#7 Hunting Shards</p> 	<p>#8 Shards Being Soaked</p> 
<p>#9 Shard Grounded & Sifted</p> 	<p>#10 Kneading Clay</p> 	<p>#11 Creating Top Lip - Coil Method</p> 	<p>#12 Raw Finished Pots (stage 1)</p> 
<p>#13 Raw Finished Pots (stage 1)</p> 	<p>#14 Creating White Slip</p> 	<p>#15 Creating Brown Tempura</p> 	<p>#16 Creating Yellow Tempura</p> 
<p>#17 Yellow Tempura Painting</p> 	<p>#18 Shining Raw Pot</p> 	<p>#19 Raw Pottery Sectioned Off</p> 	<p>#20 Creating Designs</p> 
<p>#21 Making Yucca Brush</p> 	<p>#22 Josie Painting Vase</p> 	<p>#23 Josie Painting Vase</p> 	<p>Images courtesy of Josie Marmon (Laguna Pueblo).</p>

ACTIVITY
2

Lay newspaper down on work area. Students should be provided with lumps of clay about the size of the student's fist. Students will pat the clay down to a round shaped bowl to form the base of the vessel; the thickness of the base will vary, but is usually around 1/4". Next, the students are provided with another lump of clay. The student then forms coils about 1/2" thickness and applies them to the base, continuously turning and working on smoothing the coils together. A piece of guard or kajape is used for this process. Keeping the clay moist but not too wet is important, while smoothing the coils into the pot and thinning the walls (use the guard to help with this process). The walls should be about the same thickness as the base (1/4"). After the shape is refined, the vessel is set aside to dry for several days.

After the vessel is completely dried, it should be sanded down using sand paper. First, a coarse sand paper is used to grind down the rough edges and weed out the impurities. Next, a lighter sand paper is used to smooth out the scratches left from the coarse sand paper. Next, using a wet cloth, rub the vessel lightly to help redistribute the surface particles where scratches may have occurred from sanding. Set aside the vessel and now work on creating your slip.

- Using the process described above, create slip from a small piece of left over clay. Paint slip onto surface of vessel (you may opt to paint the inside of vessel with the slip, but it's not necessary).
- Using a smooth rock (one that has been smoothed over time by water) [have students locate a rock in the local area prior to this activity] shine your vessel by distributing equal but light force throughout the shining process, (continuously turning the vessel). You may opt to use the palm of your hand since it has natural oils.



Be careful when applying force—too much force will break your vessel.

Subject

Geometry
Physical Science

Grade Level

9-12

Time Duration

45 minutes - 1 hour

Activity

- Independent activities*
- Peer tutoring*
- Hands-on*
- Technology integration*
- Learning centers*
- Primary document analysis*
- Role play*
- Viewing a video/DVD*
- Cooperative learning*
- Simulation*
- Whole group instruction*
- A project*
- Mini-lecture*
- Journal writing*
- Debate*
- Other* _____

Lesson Overview

Historically, Pueblo pottery was used primarily for utilitarian purposes, mainly for cooking, storage and holding liquid contents. Today Pueblo pottery is prized as a unique art form, blending both historical and contemporary shapes and designs. Pueblo pottery is known for their distinctive artistry and varies among the 19 Pueblos of New Mexico. Laguna Pueblo pottery is classified as polychrome pottery made with 1-2 colors; usually black, brown, red and orange.

Laguna Pueblo pottery is made from clay found around the local area of the Laguna community. The clay is dug up from local quarries, soaked, sifted and then grounded into flour like consistency. This process takes around 1-1.5 weeks, with the end result looking like a thick pulp. To add to the firmness, stability and to prevent shrinkage of the raw clay a temper is needed. The temper consist of collecting and grinding up local pottery shards into a flour like consistency, and adding this to the pulp mixture (shard temper can be substituted with fine blow sand, crushed sandstone, igneous or metaphoric rock). Once the clay sets the potter then molds the clay into the desired art form using a pinch pot or coil method. Next, the desired art piece dries for up to a week (drying time depends on the thickness and size of the art piece). The potter then smoothes out the rough areas of the art piece by using sand paper or other sanding/scraping material. The art piece is then rubbed with a wet cloth to help redistribute the surface particles where scratches may have occurred from sanding. Several coats of a white slip is brushed on and then burnished (polished) to a dull shine. The potter then applies the design work and then adds natural or commercial paints to bring life to the design. The art piece is then fired using one of two firing methods, outdoor firing or kiln firing.

Understanding Pueblo Pottery Designs

Pueblo designs are distinctive and vary among all 19 Pueblo communities. The commonality among Pueblo pottery designs are the geometrical designs that depict patterns found in nature or items of importance associated with the community's way of life. Depending on the potter's intentions, the designs on the pot either tell a story or are placed in patterns around the art piece. Pottery associated with the Pueblo of Laguna commonly include the following types of designs: lightening, clouds, rainbows, birds (hummingbirds, turkeys, eagles, parrots), insects (dragon fly, butterfly), feathers, mountains, animal figures (deer, bear), floral patterns, and other significant patterns.

Creating Natural Paints

Depending on the potter's preference, natural or commercial paints are applied to the design work of the art piece. Commercial paints can be purchased from local clay stores and are usually in the form of 'underglazes.' Underglazes are applied to the design work prior to the firing process. For the natural paints, pigments are created using native plants and rock or clay minerals found around the local area. Water is added to the pigments to form a thick paste. The paints are applied to the art piece using a conventional paint brush or a natural yucca brush created by chewing the flat side of a yucca leaf until fibers are softened and the desired thickness is created.

- Black paint is processed using wild spinach; commonly known as 'Rocky Mountain Bee Plant' (sometimes Tansy Mustard is used). The leaves of the plant are harvested in late spring through early summer and then boiled for several hours into a pulp. The pulp is then laid out on a flat surface to dry into a cake. The cake is broken into several pieces and stored for later use.
- Red, brown and yellow paint is formed from soft rock or clays containing iron minerals. The minerals are crushed to a powder and diluted with water, then painted onto the pottery surface and depending on the presence or lack of oxygen during the firing process, the coloring will vary. Underglazes (www.nmclay.com)

Understanding the Firing Process

As the finished clay piece is being cooked it goes through six phases of maturity, chemically changing in each phase. Phase one is atmospheric drying—evaporation of water; phase two is burning off carbon & sulfur—the organic materials burn off with the rise in temperature; phase three is chemically combined water evaporates—this is the last stage when all water inside the art piece leaves (fragile stage because if the water heats too fast, the art piece may pop); phase four is silica (quartz) inversion occurs—crystalline structures change at this stage (art piece is still in

fragile stage); phase five is sintering—melting or cementing of glass oxides/clay particles (at this stage the clay is no longer clay, rather ceramic material); phase six is vitrification & maturity—final stages of melting and forming of aluminum silicate, binders that strengthen the art piece. Then the cooling process begins.

- Outdoor firing pits consist of a shallow dug out surface area. Depending on the preference of the potter, various fuels are used for firing (animal dung, bark, cedar wood, pinion wood, and nowadays some potters use salt cedar, an invasive plant species brought to the area in the 1960s for environmental erosion). There are two basic types of outdoor firing for pottery, 'reduction firing' and 'oxidation firing.' During the reduction firing, process airflow is eliminated from the central area where the pots are positioned; this creates a smoldering effect. This effect causes the paints and slip to darken, with the pots now turning black or smoke colored. Oxidation firing allows for a flow of air to continuously move through the firing area, resulting in the ironized effects of the reds, yellows and browns, and the white slip turning cream colored. The wood is added, and a base is placed on top of the shallow fire pit (usually a metal crate, supported above ground). The pots are carefully assembled around the base area (careful not to touch each other), and then covered with additional tin sheets and/or old pottery pieces. The wood is set on fire and burnt down until coals form (30 minutes for firing and then ~2 hours for cooling). A key aspect of outdoor firing is maintaining the consistency of the heat. When the fire cools, the pottery is ready to be removed.
- Kiln firing is used in place of outdoor firing pits; more so today, since it is fast and convenient. For hand crafted art pieces, the firing is at high temperature, usually requiring 04* firing and cooking for ~ 4-6 hours, with the gradual rise in temperature, maturing at around 1830°F (it is important to note that different clays mature during the firing process at different temperatures, depending on the their composition.) Once the firing is complete, the kiln will need to cool completely down before opening. The total firing takes ~ 4-6 hours.

* 04 Temperature roughly translates into cooking the pot at a high temperature until the molecules almost fuse together. There is less porous areas that exist in the cooked pot, but just enough so that the tempera can stick/absorb onto the porous areas. The higher the temperature, the less porous the pottery becomes after the firing process.

Resources

- <http://www.ippc.org>
- <http://www.collectorsguide.com/fa/fa024.shtml>
- <http://www.unm.edu/~maxwell/>
- <http://www.corestandards.org/>
- <http://nmclays.com>
- <http://pottery.about.com/od/temperatureandmaturation/tp/tempclay.htm>
- <http://pottery.about.com/od/firingthekiln/tp/bisqfire.htm>



National Standards

Common Core State Standards for Mathematics (CCSSM); National Science Standards/Mathematics (National Research Council)

CCSSM; Modeling with Geometry, G-MG.

Use geometry shapes, their measures and their properties to describe objects; apply geometric methods to solve design problems.

Benchmark 9C -

The Mathematical World: Shapes.

Geometric shapes and relationships can be described in terms of symbols and numbers—and vice versa. National Science Standards (National Research Council)

Physical Science, Content Standard B:

Students will develop an understanding of chemical reactions: Chemical reactions occur all around us. Complex chemical reactions involving carbon-based molecules.

Materials & Resources

- Photos of Laguna Pueblo Pottery Process
- Uncooked, hand-crafted pottery vessel
- Pencil
- Paint brushes
- Measuring tape
- Scrap paper
- Commercial pottery paint – ‘underglaze’; stay within the 3 basic colors found in Laguna
- Pottery: black, terra cotta and yellow/burnt orange (www.nmclay.com).
- Newspaper
- Container for water (*used margarine containers work well*)
- Paint pallet (*used margarine lids work well*)

Essential Question

How are geometrical shapes applied to Pueblo pottery?

Prerequisite

Watch the *GRAB* film, paying close attention to how Josie Seymour creates her pottery.

Time Duration

45 minutes - 1 hour

Assessment

Completed designed pottery vessel with geometric patterns

NOTES TO TEACHER



If possible, bring local natural paints pigments in to compare to commercial paints or have students create their own. Also, look for local potters to share their knowledge and skills of designing pottery.

PROCEDURE

- Photos of the pottery making process will be needed for this activity.
- Place newspaper down on flat work surface. Fill margarine containers half-full with tap water (the water will need to be changed from time to time depending on how many times the paint brush is rinsed).

Guiding Questions

- What types of geometrical shapes are commonly used in Pueblo pottery?
- What other designs are found within the pottery?
- Do they tell stories?
- What happens to the paint applied to the raw pottery during the firing process?

Student Objectives

- Students will develop an understanding of how geometry methods, measures and shapes are applied to Pueblo pottery.
- Students will apply geometric shapes and measures to a hand-crafted pottery vessel.
- Students will gain an understanding of the chemical processes found within firing process of pottery.

ACTIVITY **1**

Review the Lesson Overview; History of Pueblo Pottery with students. Show photos of finished Laguna pottery and discuss geometric shapes in pottery.

ACTIVITY **2**

Using the geometric theorems and measures, develop a geometric pattern for the raw pottery students created in lesson 1.a (students may opt to use the geometric shapes found in the pottery photos displayed). Sketch a rough design of what designs the vessel will include on scrap paper.

Next, Use a measuring tape (or some form of measuring tool that is flexible) to help divide the vessel up into sections (length wise), making it easier to apply the design (most potters will use 4-8 sections depending on the size of the pot).

Apply the design to the vessel with a pencil, using light pressure. If you make a mistake, don't worry about erasing it. When the vessel is fired, the charcoal will burn off (**don't erase**, it may smear the slip).

**ACTIVITY**
3

Painting the completed designed vessel (students can work in small groups to share paints and rinsing water). Select the desired color of underglaze to be applied. Shake the bottle before opening. Using the margarine lids for paint pallets, add a small portion of underglaze (about the size of your thumb nail). Make sure you set up the container of rinsing water near the pallet of paint. Dip paint brush into rinse water to moisten. Put a small amount on the tip of the paint brush and add to the desired surface area to be painted. Repeat the process until pattern is completely painted. Make sure you keep paint brush moist. Apply 2-3 coats to the painted area. Repeat process for all areas until you finish painting the vessel.

Proceed with firing using kiln method.

Subject

Language Arts
Social Studies

Grade Level

9-12

Time Duration

45 minutes - 1 hour
x4 classes

Activity

- Independent activities*
- Peer tutoring*
- Hands-on*
- Technology integration*
- Learning centers*
- Primary document analysis*
- Role play*
- Viewing a video/DVD*
- Cooperative learning*
- Simulation*
- Whole group instruction*
- A project*
- Mini-lecture*
- Journal writing*
- Debate*
- Other* _____

Lesson Overview

Utilize the opening narration of the film for this activity;
Watch the documentary film *GRAB* video clip “Narration for Discussion” online at www.nativetelecom.org/education/grab.

Billy Luther (Navajo/Hopi/Laguna Pueblo) studied film at Hampshire College in Amherst, Mass., and worked on projects for the Smithsonian Institution’s New York City National Museum of the American Indian Film & Video Center. A past honoree of Los Angeles’ Film Independent Project: Involve, Luther was selected for the 2006 Sundance Institute/Ford Foundation Fellowship, the Corporation for Public Broadcasting/PBS Producers Academy at WGBH in Boston, and Tribeca Institute’s All Access Program with his feature documentary *MISS NAVAJO*, which world premiered at the 2007 Sundance Film Festival, had its national television premiere on *Independent Lens* on PBS and was the winner of Michael Moore’s 2007 Special Founders Prize. He is in development on the *Untitled Hopi Project* and *MISS NAVAJO: THE MUSICAL* based on his 2007 documentary.



Billy Luther. Image courtesy of World of Wonder.



National Standards

National Standards for Social Studies Curriculum

Standard 1A; The student understands the patterns of change in indigenous societies in the Americas up to the Columbian voyages.

Common Core Standards for English, Language Arts, History and Literacy

Writing Standard 2; Write informative/explanatory texts to examine and convey complex ideas, concepts, and information clearly and accurately through the effective selection, organization, and analysis of content.

Writing Standard 3; Write narratives to develop real or imagined experiences or events using effective technique, well-chosen details, and well-structured event sequences.

Speaking & Listening Standard 5; Integrate multimedia and visual displays into presentations to clarify information, strengthen claims and evidence, and add interest.

Materials & Resources

- GRAB film
- GRAB script
- Poster paper
- Markers
- Pencil
- Writing paper
- Recorders (*or videos if students choose to film themselves*)
- Video monitor or computers
- Timer

Essential Questions

- How long did it take the Producer Billy Luther to capture the story of GRAB?
- What are the essential themes that emerge from this story?
- How does the film flow (are there distinct segments)?

Time Duration

45 minutes - 1 hour
x4 classes

Assessment

- Student participated 100% in script development.
- Student engaged 100% in group discussions.
- Completed narration.

NOTES TO TEACHER



Make sure the film is available for students to use during this activity. If possible, invite a local film producer.

PROCEDURE

Student Objectives

- Students will develop an understanding and appreciation of how narration of documentary films are developed through actively creating a written script that narrates one segment of the film *GRAB*.
- Students will develop their ability to speak in public and effectively engage their audience on a common topic area.
- Students will gain a deeper understanding of the history and plight of the Laguna Pueblo community.

Guiding Questions

- What type of voice levels (tones) does the narrator use in telling the story of *GRAB*?

ACTIVITY 1

Review the **Lesson Overview** with students. Next, Students will watch the documentary film, *GRAB*. A short discussion around the themes that emerge should be included (*allow ~ 15 minutes for this discussion*).

ACTIVITY 2

Place 3 poster size papers on wall. Use the 3 questions below as headers for student discussion. Using a webbing concept, take notes of the dialogue.

Questions

(allow students to use their creative process of discovery without scripting outcomes)

- What themes did you see emerge from the film?
- What message(s) do you think the producer was hoping to convey to the audience?
- How do you think the film was developed? How was the story-line implemented?

ACTIVITY
3

Students will be divided into smaller groups (3-4 members). **Watch the documentary film GRAB video clip “Traditional Pottery” online at www.nativetelecom.org/education/grab.** Groups can determine what narrations they would like to work with from the video clip referenced above. Using the notes from the earlier discussion, along with the narration pieces, have students select one of the segments of the film and recreate the narration. Have students select various group responsibilities for the development of the emergent narration. Roles should include:

- **Reporter/note taker** – student to take notes and write script.
- **Producer** – student to oversee narration production. Keeps group on task and encourages participation.
- **Narrator** – student voice for the emerging script.
- **Sound engineer** – helps to create a timeline for moving group through script development. Keeps narration on task with film segment. Records narration.

* **Teacher Note:** *The film is broken out into 3 segments (6 months before Grab Day, 3 months before Grab Day, 1 week before Grab Day).*

* **Teacher Note:** *Allow several days for groups to develop script and voice over for film.*

ACTIVITY
4

Share Emergent Narrations of film segments.

After each group has shared, allow time for students to discuss using the following guiding questions:

- Why did the group select the targeted segment?
- What did students learn about film production and narration?
- What did students learn about Billy Luther’s production?
- How hard was it to narrow down your emergent narration piece?



Del Carrillo. Image courtesy of Idris + Tony.

Subject

Social Studies
History

Grade Level

9-12

Time Duration

45 minutes - 1 hour

Activity

- Independent activities*
- Peer tutoring*
- Hands-on*
- Technology integration*
- Learning centers*
- Primary document analysis*
- Role play*
- Viewing a video/DVD*
- Cooperative learning*
- Simulation*
- Whole group instruction*
- A project*
- Mini-lecture*
- Journal writing*
- Debate*
- Other* _____

Lesson Overview

Review history of Laguna Pueblo.

Family life among the Pueblo communities is a complex system that involves relationships of biological relationships, clan relations, Christian relationships and kinship through marriage. Of the four mentioned, clan relations is highly important among the Laguna Tribal members. It is the clan relations which help perpetuate and influence the continuance and sustainability of culture. The Pueblo of Laguna follows a matriarchal pathway giving the female the dominant role in family maintenance. The male roles are essential to the religious and political aspects of the community. The film *GRAB* exemplifies these various systems through weaving stories of three different families as they prepare for the upcoming Grab Day event. In the film, the audience witnesses the actions of families honoring these systems through their actions of supporting and taking responsibility of helping prepare and host a Grab Day to honor family members named after Saints. Additionally, the film captures a snapshot of how the elders within the Pueblo are supported by Tribal authorities, families and community to continue their connection to traditional and cultural environments. One of the most profound insights Billy was able to capture in the film is the respect, honor, love, and compassion found within most family structures among the Pueblo people; at the heart of the community's' core values.

Rebecca Touchin is a single parent with three children and is unemployed. Struggling to make ends meet, it is her desire to continue the tradition of Grab Day that leads her and her daughter, Jessica, to grow a garden using traditional Pueblo farming methods. These methods include dry farming and the use of the irrigation water system that runs through the

Lesson Overview continued

Reservation. Pueblo farming consist of intense, laborious work and is not always as abundant with harvest as Rebecca's and Jessica's garden showed in the film. Due to a decade of drought in the southwest regions, the water source around the area is sparingly distributed among farmers; the traditional irrigation systems are slowly being depleted. Consequently, much of the farming depends on dry farming techniques in hopes that the monsoon season brings blessings of rain. The success of the garden allows Rebecca to harvest corn, chili, pumpkin, squash, melons, cilantro, and tomatoes. Traditionally, these types of natural foods would have sufficed for the Grab Day event. However, with the influx of processed foods into the Pueblo communities, a great deal of more goods and commodities are distributed during the Grab Days. What stands out in this story, after all the hard work and effort it took to care for the garden, is the willingness and desire to share their harvest with community reflects these core values.

Josie and Augustine Seymor have been married for 15 years and have 4 children. They have celebrated Grab Day for 10 years in honor of their daughter Shayla Ann Seymor. The film captures the essence of the Pueblo woman's role in preparing for feast activities and the Grab Day event. In the film, Josie has various roles to fulfill along the pathway to Grab Day. First, she is one of the Pueblo's prized potters—sharing her artistic skills throughout the film. Josie is also the conduit of the family bringing them together on several occasions to go over the preparations for the feast day meal, Grab Day activities and other family events. She then shows off her skills as the lead cook in preparing the feast day meal, which fed over 50 relatives and friends. Lastly and most importantly, the film shares her nurturing and supportive parenting qualities, alongside her husband Augustine. These snapshots of Josie's life are all significant to the core values of the community.

Delbert (Del) Carrillo, a Vietnam Veteran and high school teacher with Albuquerque Public Schools, lives and works in Albuquerque New Mexico, located approximately 45 miles from the main villages of Laguna. Del grew up living off the Reservation, experiencing the environments surrounding the relocation of several Laguna families who accepted employment through the partnership with Santa Fe Railroad and the Pueblo of Laguna, called the Flowering of Friendship established in the 1800s. Many of the families were provided with boxcars to live in because there was no housing that existed for them in these areas. As a group, the relocated families felt it was important to continue various aspects of the Laguna traditions, so Del recalls families continuing the Grab Day traditions and throwing from the box cars.

Del and his family recently moved his mother Margaret Carrillo into the Tribe's elderly care center, Laguna Rainbow, so Del has become the lead person to organize the Grab Day event and feast meal. With the recent loss of his brother, Del is also impacted with carrying the bulk of the purchasing for the Grab Day event. The film captures Del's family as they sit down and plan the meal and organize the Grab Day activities. Everyone in the family is given some type of role and activity that will support the entire feast day and Grab Day events.

Lesson Overview continued

The film captures how big Del's family support system extends, with family flying home from around the country and the assembly line formed at his mother's home to move the Grab Day items to the rooftop. Del's desire to make this the best Grab Day for his family exemplifies how the community's core values are reflected in his actions.

The film also includes a snapshot of the elderly care center; the Rainbow Center's annual throw day. The Pueblo of Laguna Council granted the Rainbow Center their own Grab Day event since many of the elders are not able to be at home for their village feast days. The film captures how the elders prepare their handmade goods to be given during this special day and how local programs and families come together to help support this effort. The prayer that Gertrude shares in the film, the prayer for rain is a profound realization for the Pueblo people; "water is life for the people and land."

What you find common in all these stories is the importance of family—the importance of relationship and how organized systems come together to support the livelihood of cultural maintenance. These family systems perpetuate the significance of what it is to be Laguna Pueblo—to love one another, respect one another, honor one another and find compassion for one another.



Images from the Pueblo of Laguna. Images courtesy of Idris + Tony.





National Standards

National Standards for Social Studies Curriculum

Standard 1A; The student understands the patterns of change in indigenous societies in the Americas up to the Columbian voyages.

Standard 1A; The student will explain the common elements of Native American societies such as gender roles, family organization, religion, and values and compare their diversity in languages, shelter, labor systems, political structures, and economic organization.

Materials & Resources

- GRAB film
- Five Clan Charts
- Pencil

NOTES TO TEACHER



Here are some suggestions to learning more about Clan systems within the Pueblo communities:

- Research the clans of the three families featured in the film. Do you see any relationships among clans? Rebecca is big eagle & little parrot; Josie is big eagle & little corn, Del is big antelope & little eagle.
- Find out what Producer Billy Luther’s clans are? Do you see any relationships among the families featured in the film?
- Contact a Laguna Pueblo tribal member and invite them to share their family structure.

Essential Question

Why are Grab Days an essential part of the community structure?

Time Duration

45 minutes - 1 hour

Assessment

- Student will be able to reflect on clan names shared within the five charts.
- Student will be able to replicate a chart with examples of clan structures of a Pueblo family.
- Students will be able to convey examples of matriarchal family structures found within Pueblo communities.

Prerequisite

Preview the GRAB film.



The Marmon children & friends dressed for the fashion show.
Image courtesy of Idris + Tony.

PROCEDURE

Preview the film *GRAB*.

Review the **Lesson Overview** with students.

Student Objectives

- Students will develop an understanding and appreciation of Pueblo family and community structures.
- Students will gain an understanding of the complex systems surrounding the clan system of the Pueblo community.

Guiding Questions

- What is the significance of the Grab Day?
- Why are family relationships important among the Pueblo people?
- What historical events have impacted family structures among the Pueblo communities?
- What is the importance of clan structures among the Laguna Pueblo community?
- How important are your family relationships to continuing family traditions?

ACTIVITY



Discuss the family structures and support systems of the three families and the elders featured in the film (~10 minutes).

Provide students with the examples of the five charts of Pueblo family structures (*Clans*) (located in appendices). The Charts are color coded and labeled Chart 1(*multi-colored*), 2 (blue), 3 (blue), 4 (green), 5 (green).

Review how the clan system applies to Laguna Pueblo Tribal members. The clan system remains as one of the most important family structures among the Pueblos. The clan system is a complex system to understand because there are layers and layers of relationships that weave within the structure. We will go through a few layers in this activity to show you how this family structure works within Pueblo communities. Laguna Pueblo is a matriarchal society. Thus, the off-spring will follow the mother's clan. (*the next section will take ~ 20 minutes*).



Using the Chart 1 (*Main Chart*), review the mother's and father's family. Look at the four children, they inherit the mother's Big Clan and take on the father's big clan as their Little Clan. Now look at the first set of blue boxes to right. Three of the children get married and have children of their own; one of the siblings marries outside the Pueblo. Now look at the next set of blue boxes to the right. Try to figure out their big and little clans and write them in the space provided. (*Allow a few minutes for them to fill in their answers*).

Answers

- Child 1 will be Big Eagle-Little Turquoise
- Child 1.b will be Little Eagle (*their mother is non-native, so there is no big clan associated with her*).
- Child 1.c & 2.c will be Big Eagle-Little Roadrunner

Using Chart 2 & 3 (*blue*) lay them side-by-side and compare the mother's siblings' families. Follow the process of association of Big Clan being from the mother's side. In the case of child 3 (*brother's family*), she marries a non-Tribal member, so their child inherits her big clan (*Big Badger*) and will not have a little clan. Since he's a male, will the little clan matter? **ANSWER: YES**, with other cultural activities.

Using Charts 4 & 5 (*green*) lay them side-by-side and compare the father's siblings' families. In the case of the brother (*chart 4*), he marries a non-tribal member. What happens to the clan structure?

- Look at the 3rd set of boxes (*the children's spouses*). How do the mix marriages impact the continuance of clan structures?
- What does this new knowledge make you think about in terms of family structures?



Looking at all five charts we know that all the children (*in the first columns*) within the five sets of families are all first cousins (*biological*), and so on; we now learn a new structure of how relationships work within Pueblo communities. Now that you understand the first layer, let's take time to look at a second layer. (*this section will take ~ 5 minutes*)

Background you need for understanding the 2nd layer: In the relationship of clans the big clans will always be referred to as the mothers and fathers to the little clan members. This is the case even if they are younger in age. Example: if a 3rd generation (*biological*) male cousin is Big Lizard (*age 9*), and a 1st generation (*biological*) older male is Little Lizard (*age 54*), technically the younger 'Big Lizard' would be the older male's father, because they are 'Little Lizard' (*or if they were female, then she would be their mother*).

Using Chart 2 & 5, compare the Big and Little Clans of the offspring. Look at the second columns on both charts (*children*). Technically, the sister's children are mothers and fathers to the brother's children, since they remain Big Eagle. Now look at column 3 (*spouses of the children*). The first box on both charts shows two females. One is a Big Antelope and the other is a Little Antelope. So one is the mother to the other. Do you see any more mother-father clan relations in this chart?

Now take time to compare the other charts. Do you see the mother-father structures within the clans? (*allow a few minutes for students to explore*).

Now reflect on the Grab Day story told through the film. Not only are families supported through the biological and Christian family structures, but the clans for each family donate to the Grab Day event, and will support the families during the feast day

Chart #1:
 Clan Family Structure
 Chart (Main Family).

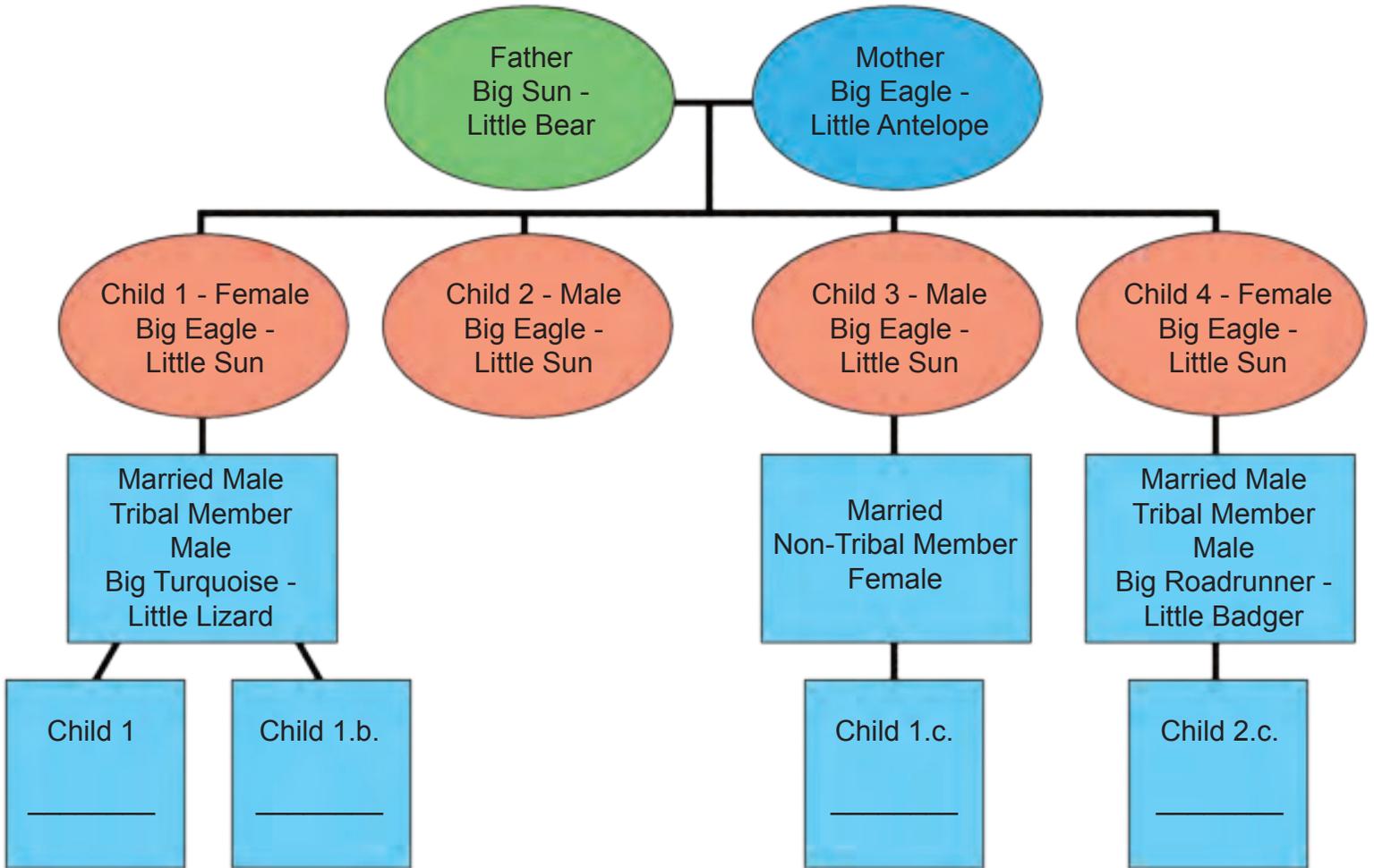


Chart #2:
 Clan Family Structure -
 Brother's Family
 (Mother's Side).

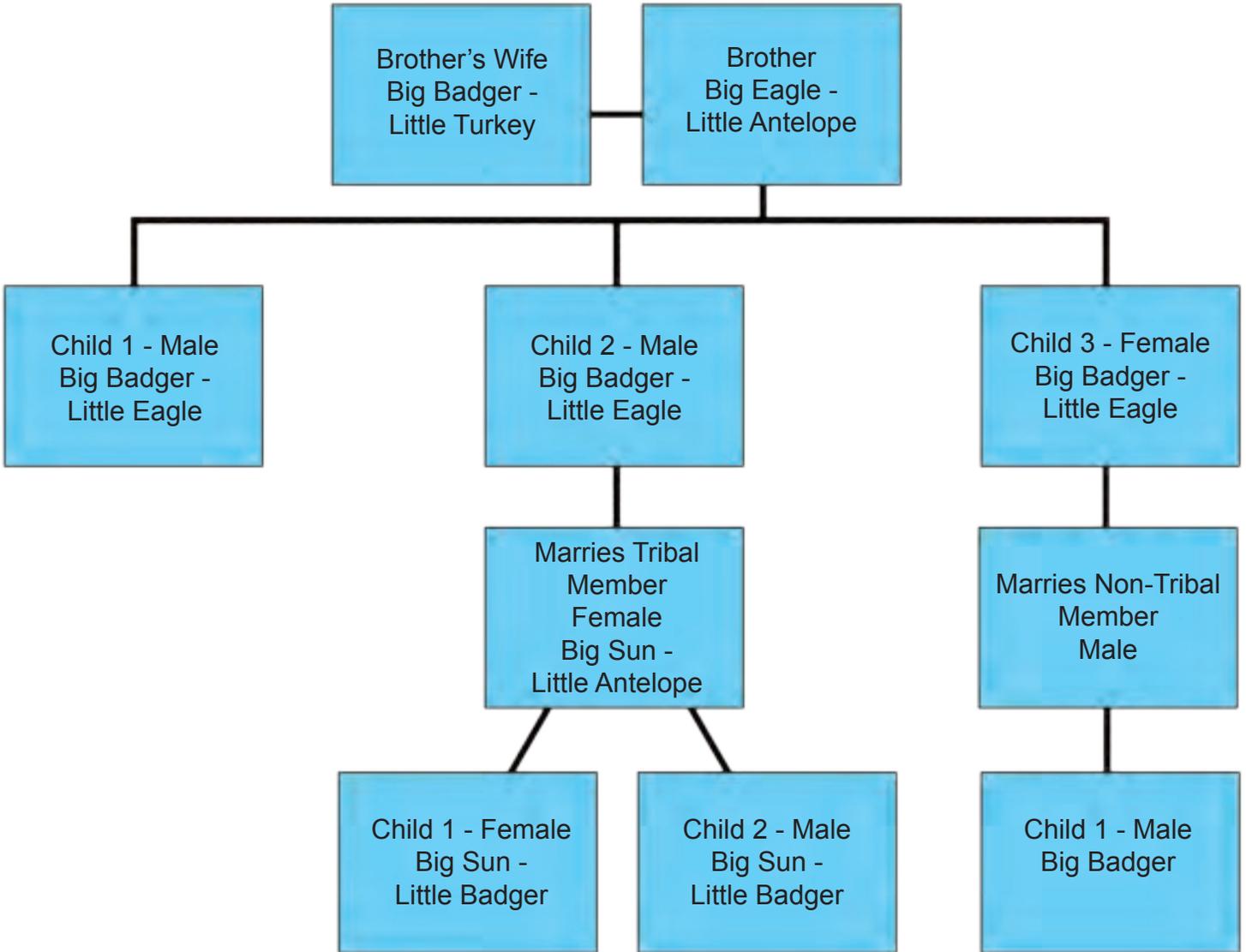


Chart #3:
 Clan Family Structure -
 Sister's Family
 (Mother's Side).

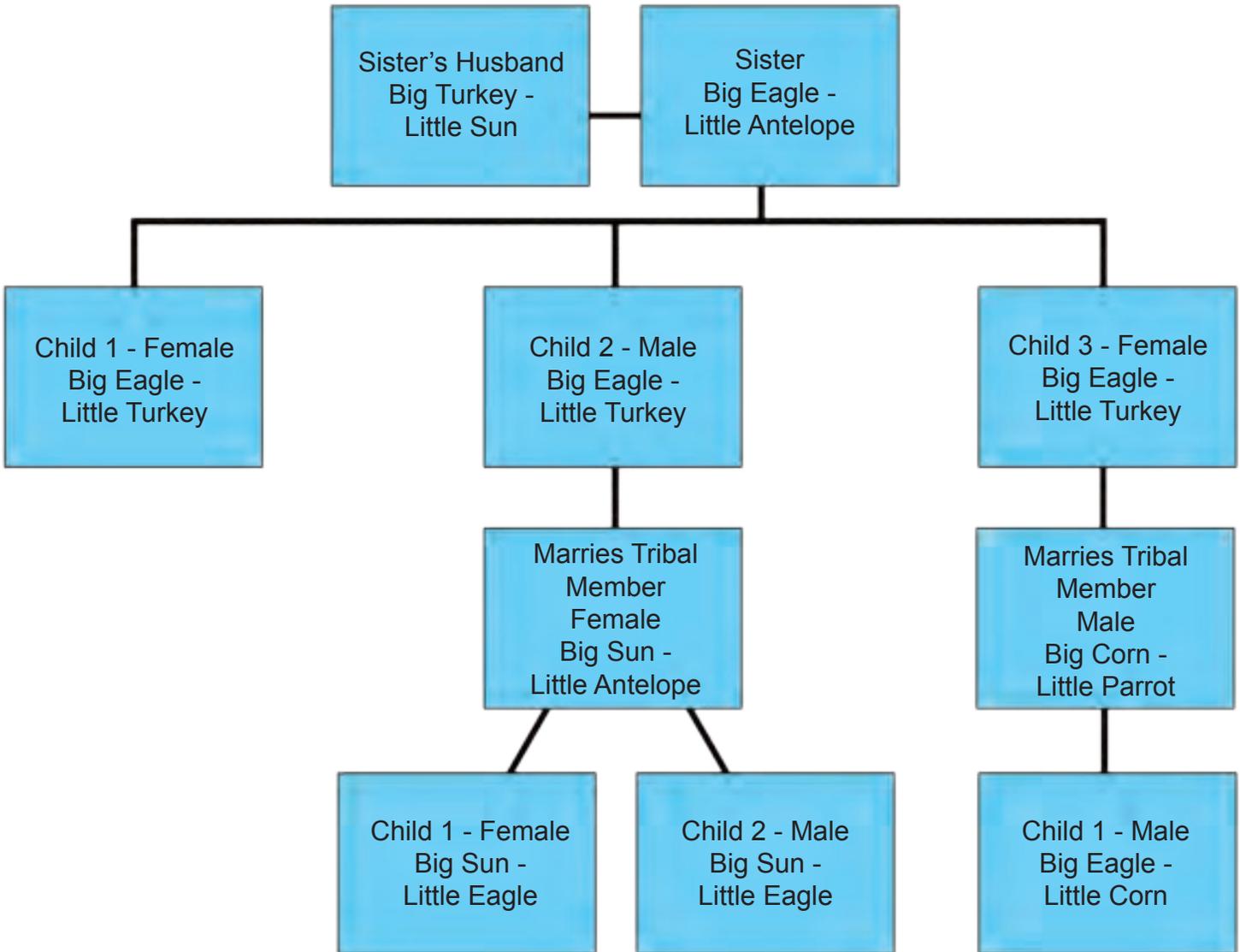


Chart #4:
 Clan Family Structure -
 Brother's Family
 (Father's Side).

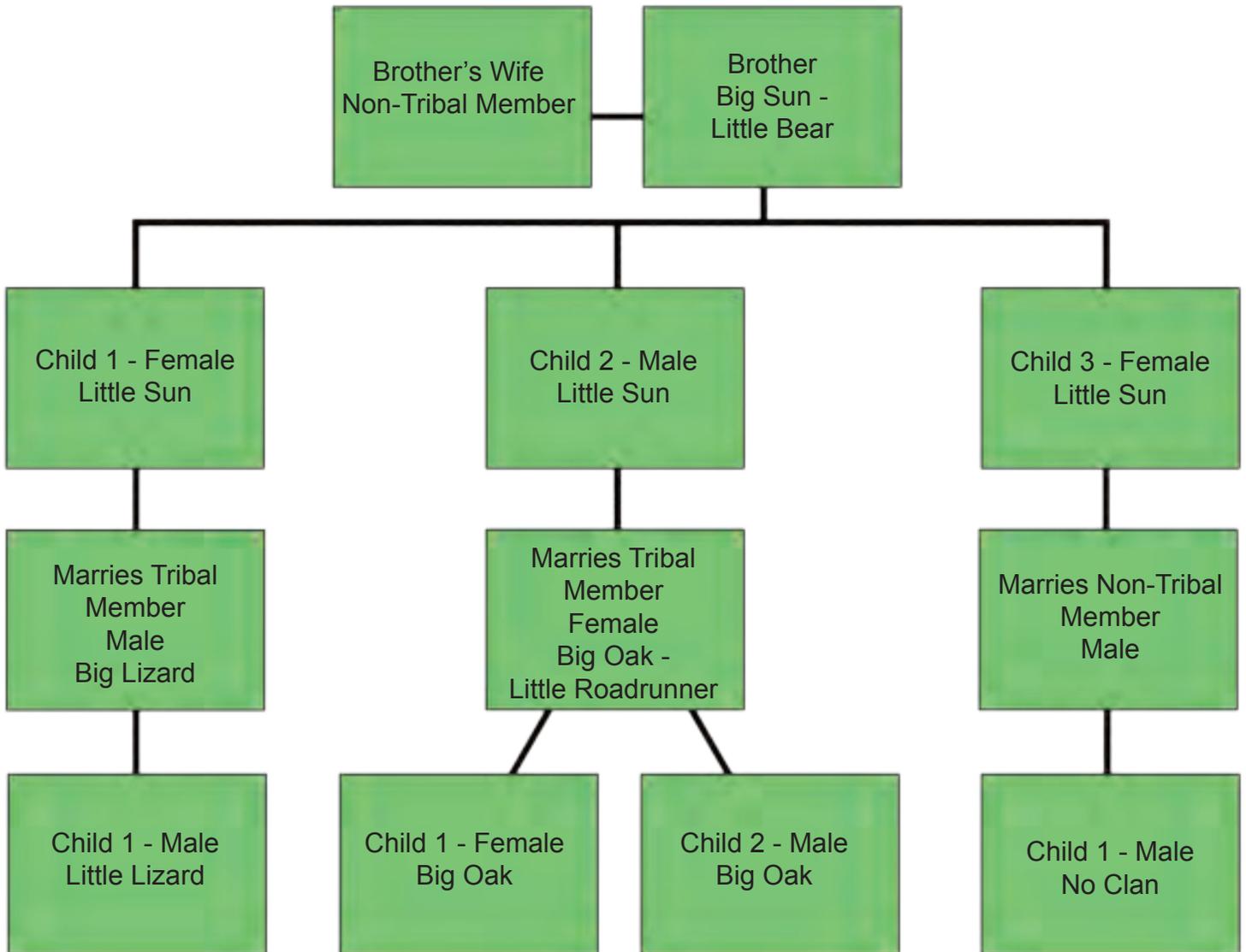
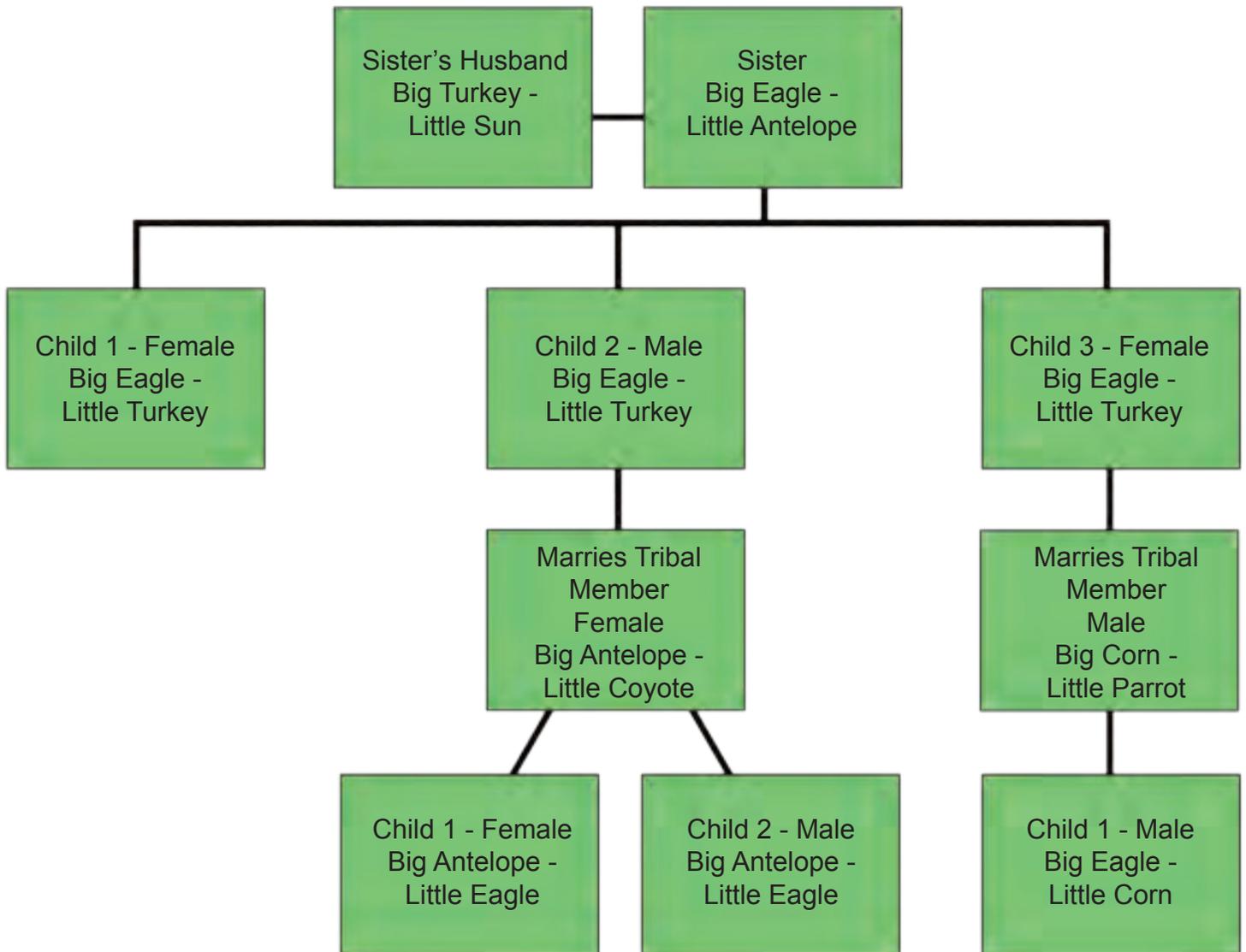


Chart #5:
 Clan Family Structure -
 Sister's Family
 (Father's Side).



Subject

Social Studies
Life & Health Science

Grade Level

9-12

Time Duration

45 minutes - 1 hour

Activity

- Independent activities*
- Peer tutoring*
- Hands-on*
- Technology integration*
- Learning centers*
- Primary document analysis*
- Role play*
- Viewing a video/DVD*
- Cooperative learning*
- Simulation*
- Whole group instruction*
- A project*
- Mini-lecture*
- Journal writing*
- Debate*
- Other* _____

Lesson Overview

Redefining the definition of “*Indian Giver*” as suggested in the film’s promotional material is exemplified through the Grab Day experience. The emergence of the Grab Day as part of the traditional feast celebrations, harmoniously juxtaposes two cultural systems that historically defied each other through giving, honoring and adapting.

As portrayed in the Grab Day film, Pueblo families who choose to honor those family members named after Saints go through great expense and sacrifice in preparing for sharing their goods and commodities with the greater community. This is exemplified with Rebecca Touchin’s passion and drive to laboriously work to grow a garden so that she can share the harvest with the people; in Del’s sacrifice to endure most of the financial burden of the Grab Day purchases so that his family can give abundantly to community in honor of their family members; in Josie’s dedication and enthusiasm to create a special pottery so that she can use it to bless the people with water, and then offer it to community.

In the past natural foods grown from the gardens would have sufficed for the Grab Day event. Vegetables like Rebecca Touchin grew in her garden would be harvested in time for feast days: corn, chili, pumpkin, squash, melons, cilantro, and tomatoes. In some cases, small farm animals like Myrtles’ pet chickens (mentioned in the film) were given away during Grab Days. In those times the Grab Day items may not have been as abundant as they are today, perhaps due to less traffic during Grab Days. However, with the progress of transportation systems, modern ways of living, the influx of processed foods and the abundance of discount stores within the nearby cities, has allowed for a great deal more goods and commodities to be distributed during the Grab Days.

National Standards

National Science Educational Standards, (National Research Council)

NSES Content Standard F; Science in Personal and Social Perspectives: Personal and community health. Selection of foods and eating patterns determine nutritional balance. Nutritional balance has a direct effect on growth and development and personal well-being. Personal and social factors—such as habits, family income, ethnic heritage, body size, advertising, and peer pressure—influence nutritional choices.

National Curriculum Standards for Social Studies
Standard 2: Decision Making. Effective decision making requires comparing the additional costs of alternatives with the additional benefits. Many choices involve doing a little more or a little less of something: few choices are “all or nothing” decisions.

Standard 3: Allocation. Different methods can be used to allocate goods and services. People acting individually or collectively must choose which methods to use to allocate different kinds of goods and services.

Materials & Resources

- Computer with internet connection
- Poster paper or white/black board for webbing activities
- Markers/chalk
- Pencil
- Paper
- Web-based resources
- Nutrition Lesson 4A document
- Photos of Grab Day food items
- Samples of Grab Day food items (suggested amounts: for a class size of 20, 4 items per group)

Essential Question

How nutritional are the processed foods found in the Grab Day events?

Time Duration

45 minutes - 1 hour

Assessment

- Students will engage 100% in the interactive activities.
- Students will be able to articulate how processed foods affect our health.

Prerequisite

- **Watch the documentary film GRAB video clip “Irrigating the Land” online at www.nativetelecom.org/education/grab**

NOTES TO TEACHER



Purchase various Grab Day food items to bring into class for this activity (suggested items: Oreo cookies, Cheetos, Doritos, sodas, canned vegetables, canned fruit, donuts, Twinkies, juices, microwave popcorn, Cracker Jack, Instant Rice, boxes of Mac ‘n Cheese, Hamburger Helper, etc.).

Display photos of Grab Day food items around the room.

PROCEDURE

Watch the documentary film *GRAB* video clip “Grab Day Items” online at www.nativetelecom.org/education/grab.

Review **Lesson Overview** prior to activity.

Student Objectives

- Students will develop an understanding of nutritional values of processed foods used for Grab Day experiences.
- Students will understand how processed foods affect our healthy lifestyles, and will use this knowledge to make effective decisions as consumers, and citizens.

Guiding Questions

- What types of foods are purchased for the Grab Day events?
- What influences families to purchase these types of processed foods?

ACTIVITY **1**

Using a webbing activity targeting ‘Grab Items,’ engage students in a brief discussion on food items they saw being thrown during the Grab Day event.

Questions

(Allow several minutes for this activity).

- What do you think are the nutritional values in some of these foods?
- Why do you think these types of food items are used or purchased for Grab Day events?
- What types of foods were traditionally used for Grab Day activities?

ACTIVITY **2**

Have students work in small groups (*3-4 students per group*). Each group should get a variety of the food items purchased for the activity. Each group should have something to write on (*paper and pencil*). Divide paper into 3 columns. Label the first column Grab Item, the next second column Ingredient, and the third column Nutritional Value. Select the first item and note it on the 1st column. Look for the ingredients and write them down in the 2nd column. Do this for the several of the Grab Day items. Next, using a computer, research the nutritional values of each ingredient and write them in the appropriate column.

Suggested Resources

- <http://www.project2061.org/publications/rsi/online/SFAA/CHAP8.HTM#1>
- <http://www.aaas.org>
- <http://www.sweetsurprise.com/>
- <http://www.enotes.com/science-fact-finder/food-nutrition/how-much-junk-food-does-average-american-eat-year>
- Nutrition Lesson 4A document

ACTIVITY 3

Have students reconvene as a whole group. Have each group share their findings. Using a webbing activity targeting 'Grab Items', write down some of the nutritional findings.

Questions

(Allow several minutes for this activity.)

- What are the common themes of ingredients? Of nutritional values?
- Do you think they complicate or attribute to healthy lifestyles among Native people?
- How healthy are the foods you eat?
- Do the **Marginal Benefits** exceed the **Marginal Costs** or do the **Marginal Costs** exceed the **Marginal Benefits**? Define which way is healthier for the community? What is your rationale behind your decision?

* **Marginal Costs** - if two products are the same, then the consumer usually will choose the cheaper one.

Marginal Benefits - if two products are the same cost, then usually the consumer will choose to purchase the one that provides more benefit.

(<http://www.investopedia.com/exam-guide/cfa-level-1/microeconomics/marginal-benefit-cost.asp#axzz1hCS8LvIW>)

Nutrition Lesson 4A Document**AGRICULTURE****Early Processing, Planting, and Domestication (AAA; Project 2061)**

Throughout history, most people have had to spend a great deal of their time getting food and fuel. People began as nomadic hunters and gatherers, using as food the animals and plants they found in the environment. Gradually, they learned how to expand their food supplies by using processing technology (such as pounding, salting, cooking, and fermenting). And they also learned how to use some usually inedible parts of animals and plants to make such things as tools, clothes, and containers. After many thousands of years of hunting and gathering, the human species developed ways of manipulating plants and animals to provide better food supplies and thereby support larger populations. People planted crops in one place and encouraged growth by cultivating, weeding, irrigating, and fertilizing. They captured and tamed animals for food and materials and also trained them for such tasks as plowing and carrying loads; later, they raised such animals in captivity.

Genetic Control

More advances in agriculture came over time as people learned not only to use but also to modify life forms. At first, they could control breeding only by choosing which of their animals and plants would reproduce. Combinations of the natural variety of characteristics could thus be attempted, to improve the domesticity, hardiness, and productivity of plant and animal species. To preserve the great variety of naturally adapted crop species that are available for crossbreeding, seed banks are set up around the world; their importance is evident in the international negotiations about who has what rights to those genetic resources.

In the twentieth century, the success of modern genetics has helped to increase the natural variability within plant species by using radiation to induce mutations, so that there are more choices for selective breeding. Scientists are now learning how to modify the genetic material of organisms directly. As we learn more about how the genetic code works (it is virtually the same for all life forms), it is becoming possible to move genes from one organism to another. With knowledge of what genetic code sequences control what functions, some characteristics can be transferred from one species to another; this technique may eventually lead to the design of new characteristics. For example, plants can be given the genetic program for synthesizing substances that give them resistance to insect predators.

Processed Foods

Most health conscious individuals now mistakenly think of food in terms of protein, fat, or carbohydrates. Thinking about protein-rich, fat-rich, or carbohydrate-rich whole food is better. Most real foods consist of a blend of protein, fat, and carbohydrates. Protein, fat, and carbohydrates are usually not isolated in nature.

Food Science

Starting in the nineteenth century, food science discovered how to isolate protein, fat, and carbohydrates from whole foods. This development led to the creation of junk food. Today, 100% artificial junk food is being sold as real food. However, not all processed food is junk food. Indeed, avoiding all processed food would be very difficult to do in the modern world. Junk food, thus, should be viewed as food that has been processed to the extreme.

The easiest way to improve your nutrition is by buying produce from your local grocery store. All food sold in plastic bags, boxes, or in cans is processed food. To improve your nutrition, simply start reading food labels. You may be surprised to learn that the so-called healthy juice that you have been drinking is more a creation of food science than Mother Nature. Most junk foods contain less than 5% of the recommended daily allowances (RDA) of any one of eight basic nutrients. Remember, that all processed foods are designed to enrich the profits of food companies, rather than to enrich your nutrition.

Source: <http://naturalhealthperspective.com/food/processedfood.html>; <http://www.aaas.org>.



Close-up of the goodies to be tossed to the crowds on Grab Day.
Image courtesy of Idris + Tony.

Subject

Social Studies
Life & Health Science

Grade Level

9-12

Time Duration

45 minutes - 1 hour

Activity

- Independent activities*
- Peer tutoring*
- Hands-on*
- Technology integration*
- Learning centers*
- Primary document analysis*
- Role play*
- Viewing a video/DVD*
- Cooperative learning*
- Simulation*
- Whole group instruction*
- A project*
- Mini-lecture*
- Journal writing*
- Debate*
- Other* _____

Lesson Overview

Redefining the definition of “*Indian Giver*” as suggested in the film’s promotional material is exemplified through the Grab Day experience. The emergence of the Grab Day as part of the traditional feast celebrations, harmoniously juxtaposes two cultural systems that historically defied each other through giving, honoring and adapting.

As portrayed in the Grab Day film, Pueblo families who choose to honor those family members named after Saints go through great expense and sacrifice in preparing for sharing their goods and commodities with the greater community. This is exemplified with Rebecca Touchin’s passion and drive to laboriously work to grow a garden so that she can share the harvest with the people; in Del’s sacrifice to endure most of the financial burden of the Grab Day purchases so that his family can give abundantly to community in honor of their family members; in Josie’s dedication and enthusiasm to create a special pottery so that she can use it to bless the people with water, and then offer it to community.

In the past, natural foods grown from the gardens would have sufficed for the Grab Day event. Vegetables like Rebecca Touchin grew in her garden would be harvested in time for feast days: corn, chili, pumpkin, squash, melons, cilantro, and tomatoes. In some cases, small farm animals like Myrtles’ pet chickens (*mentioned in the film*) were given away during Grab Days. In those times, the Grab Day items may not have been as abundant as they are today, perhaps due to less traffic during Grab Days. However, with the progress of transportation systems, modern ways of living, the influx of processed foods and the abundance of discount stores within the nearby cities, has allowed for a great deal more goods and commodities to be distributed during the Grab Days.



National Standards

National Curriculum Standards for Social Studies

Standard 2: Decision Making (Economics).

Effective decision making requires comparing the additional costs of alternatives with the additional benefits. Many choices involve doing a little more or a little less of something; few choices are “all or nothing” decisions.

Standard 1A. The student understands the patterns of change in indigenous societies in the Americas up to the Columbian voyages.

Materials & Resources

- GRAB film
- Poster paper
- Newspaper ads from local supermarkets and department stores (*Walmart, Target, Costco, etc*)
- Computer with internet access
- Grab Day Budget Form Sheet
- Markers & pencils

Essential Question

How much does an average Grab Day cost?

Time Duration

1 hour

Assessment

- Student will be able to apply the concepts of marginal benefit and marginal cost to an environment.
- Student will complete a budget and show costs associated with a Grab Day event.
- Students will be able to redefine the term Indian Giver.

Prerequisite

Watch the documentary film *GRAB* video clip “Grab Day Items” online at www.nativetelecom.org/education/grab

NOTES TO TEACHER



Display photos of Grab Day food items around the room.



PROCEDURE

Watch the documentary film *GRAB* video clip “Grab Day Items” online at www.nativetelecom.org/education/grab

Del shopping; Families filling baskets; Elders filling baskets:

Student Objectives

- Students will develop an understanding of the costs associated with Grab Day events.
- Students will understand how costs of hosting social activities impacts daily lives, and use this knowledge to make effective decisions as consumers, and citizens (concept of Marginal Benefits and Marginal Costs).
- Students will gain an understanding and appreciation for redefining the term Indian Giver.

Guiding Questions

- What factors play a part in purchasing Grab Day items?

ACTIVITY 1

Using a webbing activity targeting ‘Grab Items,’ engage students in a brief discussion on food items they saw being thrown during the Grab Day event. Document answers.

Questions

(Allow several minutes for this activity).

- Why do you think these types of food items are purchased for Grab Day events?
- How much do you think a total Grab Day event cost?

ACTIVITY 2

Work in small groups (*3-4 students per group*). For this activity you will need to assign the following roles:

- Recorder
- Budget manager
- Researcher
- Presenter

Each group will need:

Poster paper, newspaper ads from local supermarkets and department stores (Walmart, Target, Costco, etc), computer w/internet access, Grab Day Budget Form Sheet, markers & pencils.

Using the time codes above review the various Grab Day items. Using the poster paper begin developing a list of Grab Day items you see. Think of other items that may be utilized or thrown during a Grab Day event and add them to the list. Next, using a computer and newspaper ads research prices (these can be by bulk or individual quantities). Next, using the Grab Day Budget Form add the items, quantity and prices to appropriate areas on the form. Add the costs up.

ACTIVITY
3

Allow each group to share their results.

Discussion Questions

- Were the groups close in range in pricing a Grab Day event?
- How long do you think families save up for this event?
- Does the Grab Day event happen every year?
- What are the benefits of hosting a Grab Day event?
- How many other events similar to this social event do you think happen in a Pueblo community on a yearly basis?
- Does your family have similar events (family traditions) where they bring large groups together?
- How is **Indian Giver** defined in the western world? What are your thoughts on redefining **Indian Giver**?

“**Indian Giver**” is an expression used mostly by European Americans to describe a person who gives a gift (literal or figurative) and later wants it back, or something equivalent in return.

The term “Indian gift” was first noted in 1765 by Thomas Hutchinson, and “Indian giver” was first cited in John Russell Bartlett’s Dictionary of Americanisms (1860) as “Indian giver. When an Indian gives any thing, he expects to receive an equivalent, or to have his gift returned.” Thus it was really an exchange of gifts and not a matter of selflessness.”

http://wiki.ask.com/Indian_give

Also refer to the book - *Indian Givers: How the Indians of the Americas Transformed the World*; Jack Weatherford; Random House Digital, 1989)

Subject

Earth Science
Social Studies

Grade Level

3-6

Time Duration

1 hour
x 3 days

Activity

- Independent activities*
- Peer tutoring*
- Hands-on*
- Technology integration*
- Learning centers*
- Primary document analysis*
- Role play*
- Viewing a video/DVD*
- Cooperative learning*
- Simulation*
- Whole group instruction*
- A project*
- Mini-lecture*
- Journal writing*
- Debate*
- Other* _____

Lesson Overview

Pueblo communities are known for their vast knowledge of farming techniques. Some of the traditional crops grown by Pueblo farmers include: corn, squash, beans, sunflowers, cotton, chili and tobacco.

There are three types of Pueblo farming techniques that were traditionally used: waffle gardens, dry farming and irrigation farming. Today’s Pueblo farmers use a variety of modern farming techniques alongside the three traditional techniques.

Waffle gardens - Waffle gardens are named for their physical attributes of a giant waffle. The beds are divided into several rectangular sections with raised walls approximately 2-3 inches high. The walls were purposeful and held in the moisture and were also used to section off various crops or plant types. These types of gardens are rarely seen today, replaced by modern types of gardening techniques.

Dry farming- Essentially, this practice is still used today among most Pueblo communities, in combination with irrigation farming. The survival of the plants is dependent upon the rain and moisture found within the environment. With this technique, small irrigation systems were housed near the farming fields.

Lesson Overview continued

Irrigation farming - Most Pueblo communities rely on this farming technique to nourish the crops. This technique is paralleled with the dry farming, with Pueblo farmers dependent more on the irrigation system. The runoff from the fall and winter weather is diverted into an irrigation system that is shared among the local communities. Guidelines for watering crops are established for each community and Pueblo farmer. When the Pueblo farmer's time is scheduled, they create a small pathway or canal, with walls approximately 2-3" high on each side to act as a barrier for the water. Once the pathway leads to the field, the water is released from the main irrigation ditch. Water runs throughout the field until the field is well soaked; providing nourishment to the crops. Dependent upon the water fall and moisture, and the guidelines established for irrigation, this process may occur every other day or once a week, depending on the guidelines established by the community.

Rebecca Touchin and her daughter Jessica's garden is filled with many traditional foods grown by Pueblo farmers. Chili, pumpkin, squash, melon, and corn. They use the technique of irrigation farming that is demonstrated in the film *GRAB*. **Watch the documentary film *GRAB* video clip "Irrigating the Land" online at www.nativetelecom.org/education/grab** The film talks about how the first Grab Days included foods that were grown from the garden, like Rebecca's and Jessica's. These types of foods were used during Grab Day because they were abundant, most likely the only foods accessible at the time. Transportation played a factor in limited access to grocery stores and commercial foods found in nearby cities. The film also indicated that there was less human traffic during Grab Day events in the past.

The process of preparing a traditional Pueblo garden is laborious. It includes: turning over and breaking up the soil; pulling out the weeds and foreign particles; plowing and nourishing the soil to prepare for the seeds to be planted; dividing up the land into planting areas; and determining the pathway for the irrigation system. This is usually done during early spring (around late February-early March).

Once the land is prepared, the seeds are then planted during the spring time (this time varies depending on where you located; for the Pueblo communities it's usually around the end of March, early April, and can sometimes go into May). Planting of the seeds is strategically laid out. Two to three seeds are usually planted together in a small dug out hole about 4 inches below the surface. Seeds are planted approximately 12-18 inches apart (for corn it can be up to 2 feet) in sectioned off rows. Once the seeds are planted, they are covered with soil and then slightly watered to allow the soil to settle (creates a protective cover). Following the irrigation patterns/guidelines set by the community, the Pueblo farmer continuously watches and tends their field from now until harvest: pulling weeds, and keeping out animals, insects, birds and other predators.

Between early and late fall the crops should be ready to harvest (usually around mid-September and October).

Preparing Your Soil

Turning your soil is important for creating the right composition of air, water, nitrogen and other nutrients for growing a garden. Nutrients consist of organic matter that is like food to the soil that will improve soil quality; such as: plants and animals that are living or decomposed. The organic matter eat each other, decompose and breakdown adding to a rich healthy soil for growing plants.

Significance of Corn

Corn is prized among the Pueblo people. It is considered our mother, providing nourishment and livelihood. There are various types of corn, along with the uses: field corn, popcorn (form of flint corn), dent corn (the most grown corn), flint corn, pod corn, sweet corn, waxy corn, and flour corn (Indian corn). Indian corn is usually colored corn in shades of blues, reds, yellows, whites that represent the colors of the earth, the four races and four directions. The varieties of corn are used for various reasons, including: food, ceremonial, medicinal and utilitarian (rattles, jewelry, and for ornament). To learn more about the significance of corn, read the book *Corn is Maize: the Gift of the Indians*, by Alik.

Resources

- http://www.bigorin.org/pueblo_kids.htm
- <http://sharonfalsetto.suite101.com/pueblo-indian-crops-and-gardens-a76164>
- <http://growit.umd.edu/Gardening%20Basics/Step%201%20-%20Plan%20Garden.cfm>
- <http://www.google.com/search?q=types+of+corn&hl=en&prmd=imvns&tbm=isch&tbo=u&source=univ&sa=X&ei=J3vzTpuPC4H10gGQhLyQAg&ved=0CEEQsAQ&biw=853&bih=400>
- *Corn is Maize: the Gift of the Indians*. Alik Brandenburg, HarperCollins Publications, 1976.



National Standards

National Science Standards, National Research Council

Life Science; Content Standards C: Students should develop an understanding of the characteristics of organisms, life cycles in organisms, organisms & environments.

Earth Science: Content Standards D: properties of earth materials, changes in earth & sky.

MATERIALS & RESOURCES

- *Corn is Maize: the Gift of the Indians.* Alik.
- Corn parts, glue, scissors, construction paper (green, yellow, brown), pencil
- **Watch the documentary film GRAB video clip “Irrigating the Land” online at www.nativetelecom.org/education/grab**

Essential Question

- What are the characteristics (parts) of the corn plant?
- What is the significance of corn among the Pueblo people?

Time Duration

3 days at 1 hour per day

Assessment

- Students create an accurate image of a corn plant & label the parts correctly.
- Students will understand the significance of corn among the Pueblo people.
- Students will understand the process for growing a garden.

NOTES TO TEACHER



Extension Activity:

Using the steps provided in background of lesson, try planting a garden. This will need to be done in early spring and will need to be monitored during the summer and fall time.

PROCEDURE

Watch the documentary film *GRAB* video clip “Irrigating the Land” online at www.nativetelecom.org/education/grab.
 Review **Lesson Overview** prior to activity.

Student Objectives

- Students will learn the characteristics of corn and its significance among the Pueblo people.

Guiding Questions

- What types of plants grow best together?

ACTIVITY 1

Have a short discussion on the plants Rebecca and Jessica planted. What types of vegetables and fruits did you see being grown and harvested? Did Rebecca and Jessica have a good harvest? What determines a good harvest?

ACTIVITY 2

Read the book, *Corn is Maize: the Gift*

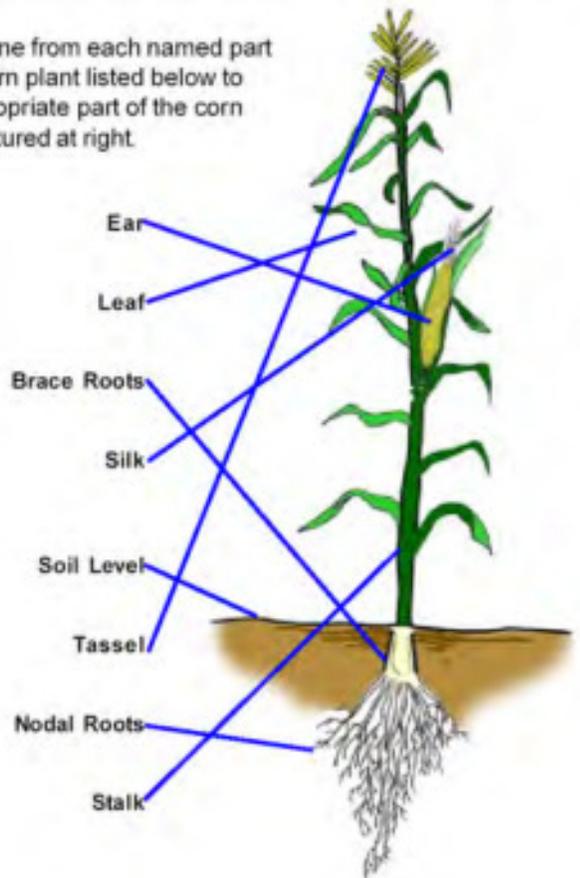
- Draw a corn plant.
- Have students label the corn plant parts.
- Discuss the parts of the plant and what they are used for.

ACTIVITY 3

Grow a Garden.

Can you identify the parts of a full size corn plant?

Draw a line from each named part of the corn plant listed below to the appropriate part of the corn plant pictured at right.



BIBLIOGRAPHY

1. <http://www.nsta.org>; National Science Teachers Association (2011); National Science Standards (National Research Council, 1996)
2. http://www.nap.edu/openbook.php?record_id=4962; National Academy Press (2011)
3. <http://www.socialstudies.org/standards/execsummary>; National Curriculum for Social Studies Teaching
4. <http://www.project2061.org/publications/rsl/online/SFAA/CHAP8.HTM#1>
5. <http://www.aaas.org>; American Association for the Advancement of Science
6. <http://www.sweetsurprise.com/>
7. <http://www.enotes.com/science-fact-finder/food-nutrition/how-much-junk-food-does-average-american-eat-year>
8. <http://www.ippc.org>; Indian Pueblo Cultural Center
9. <http://www.collectorsguide.com/fa/fa024.shtml>
10. <http://www.unm.edu/~maxwell/> ; Maxwell Museum, University of New Mexico;
11. <http://www.corestandards.org/>; Common Core Standards
12. <http://www.nmclay.com>; New Mexico Clay
13. *Messages from the High Desert*, Clint Swink (2004).
14. *Talking with Clay: The Art of Pueblo Pottery in the 21st Century*, Stephen Trimble (2007). School for Advanced Research, Santa Fe, NM.
15. Governor Richard Luarkie; Pueblo of Laguna, 2011; Powerpoint/Timeline of Laguna Historical Events
16. http://www.bigorin.org/pueblo_kids.htm
17. <http://sharonfalseitto.suite101.com/pueblo-indian-crops-and-gardens-a76164>
18. <http://growit.umd.edu/Gardening%20Basics/Step%201%20-%20Plan%20Garden.cfm>
19. <http://www.google.com/search?q=types+of+corn&hl=en&prmd=imvns&tbn=isch&tbo=u&source=univ&sa=X&ei=J3vzTpuPC4H10gGQhLyQAQ&ved=0CEEQsAQ&biw=853&bih=400>
20. *Corn is Maize: the Gift of the Indians*. Alikei Brandenburg, HarperCollins Publications, 1976.

In today's modern society we sometimes forget the importance of taking moments to give back to community. To be thankful for what we have and to share with others around us, or to support those most in need. For the Pueblo families who take part in the Grab Day experiences, their lives are rich and blessed for the sacrifice they make to share with community.

ABOUT the AUTHOR



Dr. Shelly Valdez

Shelly Valdez is a member of the Laguna Pueblo Tribe, located in central New Mexico, and is also of Hispanic descent. Her educational background includes a Bachelor of Arts degree in Elementary Education, Master of Arts in Bilingual Education, and Ph.D. in Multicultural Teacher Education focusing on research in the area of Science Education. Shelly has worked in the area of education for 26+ years and currently owns and manages an educational consulting business, Native Pathways (NaPs), located in New Mexico.