First Nations and Metis Integration into the Curriculum

Physical Science: Structures and Materials Grade 3

Rationale:
This is a short overview of the many structures that Aboriginal people created many years ago. The main focus will be housing and structures from Aboriginal groups from across all of North America. This unit is not only based on building structures but also other creations made from materials that were readily available to the area or the settlement. This unit will also show the importance of using the land and also how it has influenced the way of life of aboriginal groups in certain areas.

Incorporating Medicine Wheel Philosophy

Spiritual
To value and appreciate aboriginal structures used in the past by many aboriginal groups of North America.

Physical
Students will be able appreciate how aboriginal people used physical features from mother earth to create housing and other structures to help maintain and support life.

Emotional
Students will be able to develop thinking in the importance of why certain structure were built the way they were. They will also gain the ability to suggest and support opinions on various topics in this unit.

Mental
Students will learn that it was important for aboriginal people to pass on knowledge from one generation to the next. Student will also be able to see the importance of learning from elders and respected peoplke of the comumunity.
Unit Outcomes
SM3.1 Investigate properties of materials and methods of joinery used in structures.
SM3.2 Assess the function and characteristics of strong, stable, and balanced natural and human-built structures.

Deeper Understanding Questions
How do you depend on materials for everyday life?
In what ways would life change if these structures were not in place?
How can you show that you appreciate these structures instead of taking them for granted?
In what ways has advancement in construction improve your lifestyle and change the way people live daily?

Suggested Resources

- [http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/architectureofthetipi/architectureofthetipi.html](http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/architectureofthetipi/architectureofthetipi.html)
- [http://www.aaanativearts.com/article1165.html](http://www.aaanativearts.com/article1165.html)
- [http://firstpeoplesofcanada.com/fp_metis/fp_metis2.html](http://firstpeoplesofcanada.com/fp_metis/fp_metis2.html)
- [http://www.edukits.ca/boreal/student/informatics/tidbit.html](http://www.edukits.ca/boreal/student/informatics/tidbit.html)
- [http://www.birchbarkcanoe.net/scalemodelcanoes.htm](http://www.birchbarkcanoe.net/scalemodelcanoes.htm)
- [http://www.saskschools.ca/~gregory/cart.html](http://www.saskschools.ca/~gregory/cart.html)
First Nations and Metis Ways of Learning

The following is a list of suggested teaching methods and ways of learning that will be incorporated throughout the unit of study. This list is not limited.

- Model Building: Make different structures out of a wide variety of materials.
- Field Observations: Go for walks around local community and study different shapes and designs of buildings. Discuss reasons the buildings were shaped the way they were, and some of the special features or characteristics of the structures.
- Concept Attainment: For example show pictures and categorize which building would belong in groups because of the way they were constructed. During these types of lessons pictures of many different types of building should be used so students can identify many aspects of construction from different parts of the world.
- Guest speakers: Have carpenters, and elders come into the class to discuss construction from historic to present. Elder can also talk about the importance of the construction of aboriginal homes and structure such as a traversse and a meat drying rack.
- Compare and Contrast: Different modern structures throughout the world. You could also do this for aboriginal housing.
- Co-operative Learning Groups: Many activities in this unit could be done in a co-operative learning environment such as small groups or partner work as this unit lends itself to these types of strategies very easily.
- Compare and Contrast: why some structures were successful and why some failed. You could do this using a wide range of activities.
**First Nations and Metis Integration into the Curriculum**

**Outcome**

SM3.1 Investigate properties of materials and methods of joinery used in structures.

The following materials were and are commonly used in the building of structures. These materials served many purposes and were chosen based on their physical properties.

- Birch bark—“Birch bark was harvested in the spring when it was full of sap. This moist bark could be formed into different shapes and did not shrink or stretch. Birch bark was the first choice for making watertight, lightweight canoes. If birch was not available, people used elm or spruce bark.” (Kalman B., Nations of the Western Great Lakes, 2003)
- Cedar—“Cedar also good to use as it could easily split into long, straight planks and was slow to rot, or decay in wet weather.” (Kalman K. S., Nations of the northwest Coast, 2004)
- Copper—“Many areas contained resources that were not available in all regions. Menominee territory had copper which people mined to make many different items, such as bowls and jewelry.” (Kalman B., Nations of the Western Great Lakes, 2003)
- Clay—“Pots and cooking tools were made from clay. They would decorate the pots by scraping designs into the pots.” (Kalman B., Life in a longhouse village, 2001)
- Sinew—It was used as string. It was very strong and served many purposes. It comes from animal muscles.
- Red Willow—The willow tree is both the strongest and the most flexible. It is so strong that it can survive in severe conditions. For these reasons it was used in all types of structures.
- Pine—The pine tree also provided wood for houses. It also had a wide range of uses.
First Nations and Metis Integration into the Curriculum

Outcome

SM3.2 Assess the function and characteristics of strong, stable, and balanced natural and human-built structures.

Types of Housing Structures

Native Homes (Kalman, 2001) explains each of the following housing structures listed. This is a very good resource as it discusses a wide range of Aboriginal houses.

- Tipi- These types of homes were used by people of the Great Plains. They were designed to be easily portable as these types of people were nomadic and followed food resources around the plains. These homes were constructed out of poles and hides from animals.
  - The following web site has a lesson on the architecture of the tipi.
    http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/architectureofthetipi/architectureofthetipi.html
  - Life in a Plains camp (Kalman, 2001)
  - Houses of Bark (Shemie, 1991)
  - http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/architectureofthetipi/architectureofthetipi.html Accessed on April 26, 2010 at 10:00 a.m (Appendix 2)

- Wigwams- These types of homes were also used by people in the Great Lakes area. These people were Algonkian speaking such as the Ojibwe. Theses types of homes were either rounded or rectangular. These homes were designed to be easily moved as camps had to be moved. There were many different types of wigwams. Some were built with half walls for a cooler purpose during hot weather, and some were built very long to house and store many people and items.
  - Houses of Bark (Shemie, 1991)
  - http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/architectureofthetipi/architectureofthetipi.html Accessed on April 26, 2010 at 10:00 a.m (Appendix 3)
  - Nations of the Western Great lakes (Kalman B., 2003)

- Longhouses – These types of homes were used by people of the Great Lakes area. These people were Iroquoian-speaking nations. They used these types of houses because they were permanent and were made from materials that were easily available to the region. These houses were a long rectangular shape. These types of buildings were used for many purposes such as storing corn
  - Life in a Longhouse village (Kalman, 2001)
  - Houses of Bark (Shemie, 1991)
  - http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/architectureofthetipi/architectureofthetipi.html Accessed on April 26, 2010 at 10:00 a.m (Appendix 4)
  - Nations of the Western Great lakes (Kalman B., 2003)
• Iglu (Igloo)- These types of houses were used in the Artic Region. They were built out of blocks of ice. These homes were used because the people of the region were very nomadic. These people would move to where the food or animals were that they needed to hunt.
  o The Inuit Thought of It (Ipellie, 2007)
  o Life in the Far North (Sjonger, 2004)
  o Houses of snow, skin and bones (Shemie, 1991)
  o http://www.saskschools.ca/curr_content/careered/elementary/imgetlessons/architectureofthetipi/architectureofthetipi.html Accessed on April 26, 2010 at 10:00 a.m(Appendix 5)

• Earth Lodges- These types of homes were used by some plains people. The types of people who built this style homes were the Mandan and the Hidatsa. These people were mainly farmers who stayed in one area. These structures were round in shape and built out of wooden frames then covered with grass, bark, and soil.
  o Houses of Hide and Earth (Shemie, 1991)
  o http://www.saskschools.ca/curr_content/careered/elementary/imgetlessons/architectureofthetipi/architectureofthetipi.html Accessed on April 26, 2010 at 10:00 a.m(Appendix 6)

• Thatched homes- These types of homes were built by people in areas that had warm weather. They were used in southern states such as California and Florida. They were designed to keep rain out and circulate air for cooling purposes. There were many different types of designs but the basically served the same purpose.

• Underground Log Lodge- these types of homes were used by cree tribes in northern Quebec and Salish people on the coast of British Columbia. These houses were similar to earth lodges but instead they dug a big hole and built them into the ground. These homes we used mainly as winter homes and for protection.

• Pueblo “Apartments”- These types of homes were used in the south west part of North America. These homes were used by the Hopi and the Zuni peoples. This type of home was built because these groups of people had a short supply of animals to hunt so they became farmers. The main staple crop was corn and these types of structures help store the crop after harvest.
Plankhouses-These types of homes were used in the Northwest Coast region. They were rectangular wooden homes made from red cedar that was found in the region. These buildings were built high near the ocean shore line to prevent them from getting wet and flooded by high waters. They were also on the shore line for fishing purposes. In the winter homes were made more inland.

- Nations of the Northwest Coast (Kalman K. S., 2004)
- Houses of Wood (Shemie, 1992)
- [http://www.aaanativearts.com/article1165.html](http://www.aaanativearts.com/article1165.html) Accessed on April 26, 2010 at 11:00 a.m. (Appendix 7)

Metis Log Homes- these types of homes we more permanent than most aboriginal homes. These homes could not be easily moved. Some of these houses had more than one family that lived in them.

- Go to “Last Metis House Standing Video” [http://metisnation.net/videos-last-metis-house-standing-%5BAxwIbXrWgvs%5D.cfm](http://metisnation.net/videos-last-metis-house-standing-%5BAxwIbXrWgvs%5D.cfm) accessed on 03/08/11

The Learning Circle Classroom Activities on First Nations in Canada Ages 8-11, (McQue, 2006) Unit 2 focuses on Traditional Dwellings.

Types of Transportation Structures

This section is based on different items that were created to help the life of aboriginal groups. Many of these people use materials that are readily available in the area they populate.

- Snow shoes- This were made out of wood such as cedar. They also used sinew to create the meshing and to join them together.
  - A Native American Thought of It (Landon, 2008)
- Canoes- this type of boat was a main way of transportation for many aboriginal groups in Canada. This style of boat was used for many reasons such as it was easy to carry because it was light. This allowed them to portage to different bodies of water in search of food and other supplies. There are many types canoes that you could study such as birchbark, dugout, bull boat, and york boats.
  - [http://www.edukits.ca/boreal/student/informatics/tidbit.html](http://www.edukits.ca/boreal/student/informatics/tidbit.html) Accessed on April 27, 2010 11:30 a.m
  - Building a Birchbark Canoe in the Traditional Way of the Yellowknives Dene (Hurcomb, 2009)
  - A Native American Thought of It (Landon, 2008)
• Red River Carts- these carts were very important for travel for the metis people and European settlers. These carts were used for traveling long distances. The large wheels allowed the cart to move easily across the prairies. These wheels were easily moved to allow the cart to float over water. These carts were hooked up to livestock and then dragged by the animals.
  o 
• Travois- These structure was designed to help aboriginal people move across the prairies. The people would walk and the Travois would be tied up to dogs or animals and dragged behind carring camp supplies.
  o [A Native American Thought of It](http://www.saskschools.ca/~gregory/cart.html) (Landon, 2008)
• The Learning Circle Classroom Activities on First Nations in Canada Ages 8-11, (McQue, 2006)
  Unit 2 focuses on Transportation and Travel.
• Kayak- is a narrow long boat that was made for only one person. They were extremely swift moving in water and could carry a hunter and its kill back to shore.
  o [The Inuit Thought of It](http://www.saskschools.ca/~gregory/cart.html) (Ipellie, 2007)

• Umiak- This boat was used to transport many people and supplies. It was also used to move camps from one place to another.
  o [The Inuit Thought of It](http://www.saskschools.ca/~gregory/cart.html) (Ipellie, 2007)

Other Types of Structures

• Sweat Lodge- This structure was built for ceromomial purposes. It was made out of trees and hides. It was domed shaped.
  o [House of hide and earth](http://www.saskschools.ca/~gregory/cart.html) (Shemie, 1991)

• Hide Tanning rack- This type of structure was very easy to build as it was basically the shape of a square or rectangle. It would stretch out the hide and meat. This enabled it to dry evenly and become ready to make clothing and food out of. They would stretch all types of animal hides such as beaver, moose, muskrat, and rabbit.
  o [Tanning a Moosehide in the Traditional Way of the Yellowknives Dene](http://www.saskschools.ca/~gregory/cart.html) (Hurcomb, 2009)
Appendices Table of Contents

Appendix 1  Understanding First Nations Relationship with the Land
Appendix 2  The Tipi
Appendix 3  The Wigwam
Appendix 4  The Longhouse
Appendix 5  The Igloo
Appendix 6  The earth Lodge
Appendix 7  The Plank house
Appendix 8  The Metis house
Appendix 9  Trees and their uses
Lesson Six: Architecture of the Tipi

Lesson Information

Concept
This activity introduces students to architectural aspects of the Tipi.
This activity also improves spatial reasoning skills.

CEls
Independent Learning
Technological Literacy
Critical and Creative Thinking

Structure
Discuss the structure of the Tipi.
Complete the tipi scale model activity.

Time Estimate
Two Hours

Materials Needed
TIPI MODEL DRAWING (handout 6.1)
Newspaper
Cardboard
Butcher Paper

Teacher Resource Notes
Tipi Facts Information Sheet
Tipi Model Construction Notes
Tipi Cover Pattern

Objectives
Students will become aware of the architectural aspects of the Tipi.
Students will improve their spatial reasoning skills.
Students will improve cultural awareness of First Nations’ architecture.
Procedure

1. Introduce the topic of the tipi to the students.

2. Discuss the structure and architectural ingenuity of the Tipi using the Tipi Facts Information Sheet from the Teacher Resource Notes to guide discussion. Review the meaning of each Tipi pole according to the TIPI MODEL DRAWING (handout 6.1) and the Teacher Resource Notes.

3. Introduce the Tipi model activity; each student will make a scale model based on what they have learned about the structure of the Tipi.

4. To help students relate to the size of the Tipi, have them stand in a circle large enough to measure approximately 16 feet across. Indicate that this is the average size of a Tipi.

5. Review with students instructions for the Tipi model activity according to the Tipi Model Construction Notes. Use an overhead of the placement of the Tipi poles.

6. Discuss the potential of using the Tipi in modern architecture. Would the shape of the Tipi be more appropriate for useable building space or of artistic touches? Have students discuss the possibilities for use of the Tipi in modern architectural approaches.

Information above retrieved from:
Lesson Series: Choosing the Beat of Her Own Drum, developed by IMGETT (Indian and Metis Girls Exploring Trades and Technology Committee) a part of the SIAST Wascana Campus.
Accessed on April 26, 2010 at 10:00 a.m. Retrieved from: http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/architectureofthetipi/architectureofthetipi.html

Tipi Facts Information

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The Tipi of the Plains was a portable structure constructed from a frame of wooden poles arranged in a cone shape and enclosed by a cover. The average tipi measured 16 feet across.

The number of poles varied depending on the size of the tipi. The average number was fifteen poles for the tipi and two poles for the flaps. The placing of the tipi poles began with either a tripod or quadripod as the foundation. The remainder of the frame poles were then arranged between these foundational poles in a specific pattern (See tipi Model Construction notes).
A cone shape can withstand very high winds and is very sturdy. The con shape of the Tipi ensured dryness because there were no dips or folds in which moisture could collect.

Although not precisely cone shaped, the Tipi had the same strength. If it were a perfect cone shape, the opening at the top would have to be very large to allow of the meeting of the structural poles and to allow a vent for campfire smoke.

Architectural ingenuity was used to solve this problem by tilting the cone. The smoke vent was placed at the front of the Tipi along the longer, sloping side. The poles crossed at the top of the smoke hole instead of the middle. The venting hole did not need to be very big and this also made the back side of the Tipi shorter and steeper.

The door of the Tipi usually faced east. The short, steep west side of the Tipi served as a strong base against prevailing westerly winds.

Two flaps extended from the cover at the smoke hole like two ears. Two poles were attached to the flaps outside the Tipi. By moving the poles to adjust these flaps, the wind and rain could be kept out of the smoke hole.

The Tipi was covered with well-made buffalo hides sewn together with sinew.

The tipi was practical for buffalo hunters on the prairies who moved from place to place. It was easy to dismantle and the poles became part of the travois. The travois is a form of sledge once used by Plains Indians, consisting of a platform supported by two trailing poles, the forward ends of which were fastened to a dog or horse. When horses were introduced, Tipis became larger and more elaborate, and the number of foundation poles was more consistently patterned.

Information above retrieved from:
Lesson Series: Choosing the Beat of Her Own Drum, developed by IMGETT (Indian and Metis Girls Exploring Trades and Technology Committee) a part of the SIAST Wascana Campus.
Accessed on April 26, 2010 at 10:00 a.m. Retrieved from:
http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/architectureofthetipi/architecturedtipinotes.html
The poles of the Tipi represent the following values (1):

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http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/architectureofthetipi/architecturedesignnotes.html

1. Obedience
We learn by listening to traditional stories, by listening to our parents or guardians, other students and our teachers. We learn by their behaviours and their reminders so that we know what is right and what is wrong.

2. Respect
We must give honour to our Elders and to strangers that come to visit our community. We must honour other peoples' basic rights.

3. Humility
We are not above or below others in the circle of life. We feel humbled when we understand our relationship with Creation. We are so small compared to the majestic expanse of Creation. "We are just a strand in a web of life" and we respect and value life.
4. Happiness
We must show some enthusiasm to encourage others at social functions. Our actions will make our ancestors happy in the next world.

5. Love
If we are to live in harmony we must accept one another as we are and to accept others who are not in our circle. Love means to be kind and good to one another.

6. Faith
We must learn to believe and trust others, to believe in power greater than ourselves whom we worship and who gives us strength to be a worthy member of the human race.

7. Kinship
Our family is important to us. This includes our parents, our brothers and sisters, who love us and give us roots, the roots that tie us to the life blood of the earth. It also includes extended family: grandparents, aunts, uncles and cousins and their in-laws and children. These are also our brothers and sisters and they give us a sense of belonging to a community.

8. Cleanliness
We must learn not to inflict ills on others, or we do it to ourselves. Clean thoughts come from a clean mind and this comes from Indian spirituality. Good health habits and also reflect a clean mind.

9. Thankfulness
We learn to be part of the family by helping in providing food or other basic needs. This is sharing responsibilities in order to enjoy them.

10.

11. Strength
We must learn to be patient in times of trouble and not to complain but endure and show understanding. We must accept difficulties and tragedies so we may give others strength to accept their own difficulties and tragedies.

12. Good Child Rearing
Children are unique and blessed with the gift of life. We are responsible for their well-being, spiritually, emotionally, physically and for their intellectual development. They represent the continuity of our circle of life which we perceive to be the Creator's will.

13. Hope
We must hope for better things to make life easier for us, our families and the community, both materially and spiritually.

14. Ultimate Protection
The ultimate responsibility to achieve is "health for a balanced caring for the body, mind, emotions and the spirit of the individual, the family, the community and the nation."

15. Control Flaps
We are connected by relationships and we depend on each other. This controls and creates harmony in the circle of life.

Tipi Model Construction Notes

Information and images below retrieved from:
Lesson Series: Choosing the Beat of Her Own Drum, developed by IMGETT (Indian and Metis Girls Exploring Trades and Technology Committee) a part of the SIAST Wascana Campus.
Accessed on April 26, 2010 at 10:00 a.m. Retrieved from:
http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/architectureofthetipi/architecturertipinotes.html

1. Proper positioning of poles is illustrated below.
2. A pattern for the tipi cover is attached.
3. Tipi poles can be made from rolled up newspaper and cut to size.
4. The Tipi pattern can be copied onto the blackboard or enlarged from the template provided.
5. The base of the tipi can be made from a square piece of cardboard.
6. Tipi poles can be attached with tape at the base of the Tipi, and tape or string at the top.

Image retrieved from:
Lesson Series: Choosing the Beat of Her Own Drum, developed by IMGETT (Indian and Metis Girls Exploring Trades and Technology Committee) a part of the SIAST Wascana Campus.
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http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/architectureofthetipi/architecturertipinotes.html
Student Handout 6.1

Tipi Model Drawing

Image retrieved from:
Lesson Series: Choosing the Beat of Her Own Drum, developed by IMGETT (Indian and Metis Girls Exploring Trades and Technology Committee) a part of the SIAST Wascana Campus. Accessed on April 26, 2010 at 10:00 a.m. Retrieved from:
http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/architectureofthetipi/architecturertipihandout61.htmlAccessed on April 26, 2010 at 10:00 a.m
Appendix #2

Information and image on Wigwam retrieved from:
Lesson Series: Choosing the Beat of Her Own Drum, developed by IMGETT (Indian and Metis Girls Exploring Trades and Technology Committee) a part of the SIAST Wascana Campus. Accessed on April 26, 2010 at 10:00 a.m. Retrieved from: http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/firstnationsarchitecture/firstnationsarchhandout73.htm

First Nations’ Architecture
Student Handout 7.3

Wigwam

The wigwam was the most characteristic house of the Algonquin Indians, who lived in the Great Lakes region of North America.

The wigwam was built with long straight poles, preferably willow. Pairs of poles were set vertically in the ground and bent over to form a series of arches. Horizontal poles were then tied at intervals to the arched poles to form a dome-shaped framework.

To secure the poles the tips were wound around each other or overlapped, then tied together with strips of fresh white oak, though roots, or inner basswood bark. The framework was covered either with bark, woven or sewn rush mats or hides. It was usual for a wigwam to be around 3 metres high and 3.5 metres in diameter. The women sheathed the frame with bullrushes and cattails. The stalks were cut during September and October and a 10 inch needle made from animal bones was used to sew the mats together. The mats were tied together up to the smoke hole so that the grain of the reeds ran vertically for efficient runoff. The floors were strewn with fir tree needles to keep away dampness. As the tribes moved on, the mats were removed and rolled up to transport to the next dwelling place.

The Micmac Indians of Nova Scotia built a conical wigwam. It was similar to the wigwam, but had its own qualities. Wigwams were used until recently and can still be seen in a few regions.
Image retrieved from:
Lesson Series: Choosing the Beat of Her Own Drum, developed by IMGETT (Indian and Metis Girls Exploring Trades and Technology Committee) a part of the SIAST Wascana Campus. Accessed on April 26, 2010 at 10:00 a.m. Retrieved from:
http://www.saskschools.ca/curr_content/careered/elementary/imgetlessons/firstnationsarchitecture/firstnationsarchhandout73.htm
Appendix # 4

Longhouse

Information and image on Longhouse retrieved from:
Lesson Series: Choosing the Beat of Her Own Drum, developed by IMGETT (Indian and Metis Girls Exploring Trades and Technology Committee) a part of the SIAST Wascana Campus.
Accessed on April 26, 2010 at 10:00 a.m. Retrieved from: http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/firstnationsarchitecture/firstnationsarchhandout74.htm

Along the St. Lawrence River, in upper New York State and west to the shores of Lake Ontario, the communal dwelling of the Iroquois tribe was the longhouse. The longhouse originated from the Iroquois genesis Legend. This Legendary system gave the Iroquois the model for living space. It was usually 100 feet long framed by saplings and covered with bark. The longhouse was occupied year round by families related through the female line.

The outer wall of the longhouse was framed with poles set in the ground about a foot deep. Two rows of vertical poles eight to ten inches in diameter defined the inside central corridor and supported the sleeping bunks and the roof. The main doorway was placed precisely in the centre of the west wall. The Iroquois were partial to elm bark which was peeled from the trees when the sap was rising, usually between May and mid-July. The thick sheets of bark were flattened under rocks. The bark was then punctured with bone awls and tied to the frame with green basswood or the inner bark of the elm tree. The longhouse was usually enlarged to accommodate new couples.

On the West Coast, longhouses were sometimes made of cedar bark but more often were constructed using cedar posts and planks split with mauls and surfaced with adzes. The longhouses were usually 60 to 100 feet long and lined up in one row facing the ocean. There were no windows and most often, only one small entrance which was framed by elaborately carved posts. Inside the longhouse were painted house screens made of planks which were smoothed by adzes and fastened together with sinew or dowels. The screens were used to create separate sleeping compartments.
Image retrieved from:
Lesson Series: Choosing the Beat of Her Own Drum, developed by IMGETT (Indian and Metis Girls Exploring Trades and Technology Committee) a part of the SIAST Wascana Campus.
Accessed on April 26, 2010 at 10:00 a.m. Retrieved from:
http://www.saskschools.ca/curr_content/careered/elementary/imgettlssons/firstnationsarchitectur e/firstnationsarchhandout74.htm
Appendix # 5

Iglu

Information and image on Iglu retrieved from:
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Accessed on April 26, 2010 at 10:00 a.m. Retrieved from:
http://www.saskschools.ca/curr_content/careered/elementary/imgettlessons/firstnationsarchitecture/index.html

The Inuit word "iglu" originally meant any permanent, roofed dwelling, but later became known as any domed dwelling built of snow blocks. Only the Inuit groups between Labrador and the Mackenzie Delta occupied them all winter. Special taboos were often observed when building an iglu. Some of these taboos suggested a symbolic tie between the iglu and the womb.

The iglu's diameter, usually 6 - 15 feet, was determined depending on whether it was a temporary or permanent dwelling. A circle was marked in the snow. Snow blocks were then cut from within the circle. The bottom of the trench would be the floor. The first course of blocks was trimmed to begin to form the spiral dome. Blocks were added in a spiral to complete the dome. The edge of each block was angled to slope inward, creating the dome shape. From within the iglu the builder placed the final block, shaping it with a knife to fit into the opening. A door hole was cut on the side facing away from the wind. Snow was then packed over the blocks to seal all cracks. Tunnels and storage chambers were added. A skilled iglu builder could complete the dome in just a few hours.
Earthlodge

The earthlodge first appeared around AD 700, housing the earliest farming cultures of the Plains. In the Dakota region, the Mandan and Hidatsa erected earthlodge villages. The earthlodge played a role in the Legends and rituals of these people. The Mandan considered the four main posts to be equal to the four pillars on which the sky rests. The Hidatsa considered the earthlodge as a living entity whose spirit lived in the central beams.

The Mandan and Hidatsa constructed the earthlodge in the same fashion. Four or more posts, usually cottonwood, were placed in the ground and joined at the top by crossbeams. Shorter posts and beams were then built around the frame. Extending from the smoke hole, a circle of roof rafters rested on the outer ring. To complete the frame, a vertical sidewall of covering posts - known as puncheons - were placed around the structure to hold the earth walls. Small sticks overlaid with brush or grass provided padding for the heavy layer of sod or loose earth. Some tribes applied a final coat of wet earth that dried like a plaster shell.
Appendix 7

Plank House

Plank houses are square or rectangle shaped dwellings made by the Native Americans living on the Pacific Northwest coast. Plank houses were made very large, some as large as 60 by 100 feet. They were made using wooden planks latched to a post and beam frame. Planks were used for flooring and platforms along the walls were used for sleeping and storage. The front of the plank houses were carved, and, or painted. Totem poles were generally put out in front of a home to let others know who lived there.

The information and image above was retrieved from: http://www.aaanativearts.com/article1165.html
Accessed on April 26, 2010 at 11:00 a.m.

For more information about Native American Homes follow the link below:
http://www.aaanativearts.com/article1156.html
Appendix # 8

For information about Metis Log Houses and images please follow the link below:
Goldie Productions Ltd. April 26, 2010. Retrieved from:
http://firstpeoplesofcanada.com/fp_metis/fp_metis2.html

Further information about the Metis can be found at:
http://firstpeoplesofcanada.com/index.html

and other First Peoples of Canada:
http://firstpeoplesofcanada.com/index.html

Appendix # 9 Canoes

For information and link to a diagram of different types of canoes follow the link below:
http://www.edukits.ca/boreal/student/informatics/canoes.html Accessed on April 27,2010 11:30 a.m.

Further information, follow the link below:
http://www.edukits.ca/boreal/student/informatics/tidbit.html Accessed on April 27,2010 11:30 a.m.
Traditional Indian Birch Bark Canoes
Henri Vaillancourt

Scale Model Birchbark Canoes

12 foot half-scale model of 24 foot Algonquin fur-trade style canoe
APPENDIX # 10

TRANSPORTATION IN THE EARLY DAYS

RED RIVER CART

The Red River cart was a two-wheeled cart made entirely of wood. The cart was used by settlers, fur traders and the Métis people. The first carts were built at the Red River settlement in Manitoba.


Settlers often used a cart called a Red River cart to get to their homesteads. The cart was made of wood. The parts were held together with wooden pegs and strips of rawhide. Strips of rawhide were also wrapped around the wooden wheel rims. It was a strong cart and lighter than most wagons.

There were no roads, just trails across the prairies when the first settlers arrived. Their wagons and carts often broke down. The Red River cart was easy to fix. If a stream had to be crossed the wheels could be removed and the cart floated across. Sometimes, a rounded hood of canvas or hide was placed over the cart to cover the contents or to provide shelter for the driver and family.

The Red River cart was also used to haul freight (supplies). The carts hauled supplies from larger communities. A cart could carry loads of 225 kilograms (500 pounds) for up to 80 kilometers (50 miles) a day when pulled by a horse. Oxen could pull loads of 450 kilograms (1,000 pounds) for 12 kilometers (20
miles) a day. Ox-carts travelled in a long line with over a hundred in a line. Red River cart trails were made across the prairies. The first trails started in Winnipeg and went west and south.

FUR TRADERS and BUFFALO HUNTERS used the Red River carts to haul the buffalo meat and hides. The buffalo hunters followed the buffalo herds and shot the buffalo, then skinned the animals and sold the hides at trading posts.

THE METIS used the carts to haul buffalo meat and hides during the yearly hunts (in spring and fall). They moved around a lot so the cart was useful for carrying their belongings.

The harness was made of buffalo hide. The animal stood between the twelve foot long shafts. A large box sat on the shafts. When the box was full, boards could be slipped in the sides to stop things from falling out of the cart. The big wheels kept the box high off the ground so the cart cleared tree stumps and rocks. This also made it easier to go through mud. The cart did not tip over easily because of the high wheels.

http://www.saskschools.ca/~gregory/cart.html Accessed on April 26, 2010
Appendix # 11
Travois

For information on the Travois, follow the link below:
http://www.thecanadianencyclopedia.com/index.cfm?PgNm=TCE&Params=A1ARTA0008105
accessed on April 26, 2010 1:15 p.m.

For images of Travois, follow the link below:
http://www.firstpeople.us/american-indian/native-american-indian-photographs-1.html#people_1
Accessed on April 26, 2010

Appendix 12
Trees and Their Uses

Cree Uses
Birchbark
- Teepees and wigwams constructed from small birchbark saplings.
- Dishes and utensils such as spoons
- Bows and arrows
- Frame for Snowshoes
- Frame of drum
- Sculptures and carvings
- Carving knife handles
- Masks used usually for ceremonies
- Birchbark biting
- baskets
- Bark use to make containers for dried berries, grains, and meat.
- Canoes

Metis Uses
Pine Trees
- Logs were dried and peeled to use for their log houses
- Split logs where used for wood shingles or sod
- Narrow logs cut into poles and used for drying hides and storing food
- Bed frames
- Floor
- Furniture such as tables, chairs
- Birch bark containers
- Travois
- York Boats
- Red River Carts
REFERENCES


