Métis History and Culture: What type of transportation to use?

Overview:

This lesson is a hands-on activity where students can explore reasoning and solutions for why people create different types of transportation. The lesson has students brainstorming and problem solving. They will also learn about how the Métis people solved their transportation issues, including the Red River cart and the York boat.

A good site for some background reading on Métis transportation is at The Virtual Museum of Métis History and Culture (http://www.metismuseum.ca/resource.php/00728). You can download a PDF called Traditional Métis Transportation, created by Darren R. Préfontaine, Todd Paquin and Patrick Young. This PDF contains information about Red River carts, York boats, canoes, snowshoes and more. There are questions at the end if you were wishing to use the entire reading in class.

Lessons:

1. Fur traders problem solving: What type of transportation to use?
2. The York Boat
3. The Red River Cart
4. Other Forms of Métis Transportation
Lesson 1:
Fur traders problem solving: What type of transportation to use?

PLOs:

**Social Studies 5:** analyse the development of transportation systems in BC and Canada

**Science 5:** demonstrate how various forces can affect the movement of objects; demonstrate mechanical advantage of simple machines, including lever, wedge, pulley, ramp, screw, and wheel; design a compound machine.

**Science and Technology 11:** describe the roles of transportation in society and the effects transportation has had on society; analyse features incorporated into particular types of transportation; describe a transportation system and evaluate its impact on society; analyse a mode of transportation and the technologies associated with its design, construction, and operation

**Social Studies 10:** analyse political, economic, social, and geographical factors that led to Confederation and to the development of Canada’s provinces and territories; analyse Canadian society from 1815 to 1914 in terms of gender roles, ethnicity, daily life, and the arts; describe the factors that contributed to a changing national identity from 1815 to 1914; analyse how geography influenced the economic development and settlement patterns in regions of Canada from 1815 to 1914

**Technology Education 11:** describe the historical and potential future impact of energy, power, and transportation systems on society and the environment (Automotive Technology); describe the impact of energy, power, and transportation systems on society and the environment (Industrial Design)

**Time:**

The time frame for this lesson will depend on the subject. For a social studies or science class this would take around 2-4 hours. Technology Education would be expected to lengthen this time frame.

**Materials:**

- Popsicle sticks
- Sinew/leather/string/pipe cleaners (if no other options)
- Glue (hot glue gun optional)
- Long skewers
- Pieces of white cloth
- Bark or some sort of similar material
- Map of Manitoba showing the landscape and forts
- Atlas (for additional info about the landscape the traders cross over)

**Method:**

1. Brainstorm with the class about various forms of transportation we have in the world, this can be from any country or time period. Ideas could include automobiles, trains, canoes, carts, planes, shoes, sleds, boats, bikes, wagons, horses, tanks, ships. Get as many ideas down as possible on a
board that the students can see as they will need to be able to see the list for ideas later. Discuss how transportation differs as the physical landscape and the seasons differ.

2. Present the problem to the students, whether it is on a piece of paper they can write on, or something written on the board. The problem: “You are a Hudson Bay Company trader trying to get your furs from Fort Garry to York Factory. You have 3 tons of wares (6000lbs [approximately 2700 kg], or to put it in terms of something tangible, it is approximately the weight of one H3 Hummer or two Volkswagen Beetles). It is the first week of October, so the weather is cold (hovering around 0°C) and there is snow on the ground in some areas. The terrain is full of marshes, rivers and lakes. Build a form of transportation for your goods.” Show the students what materials you have available to use for their project.

3. Have the students work in groups (2-4 depending on your particular class and grade level). The students should consider the route they think their trader may take. Have each group plot out the route on the map of Manitoba (showing a clear marking of their route to go with their 3D model) and use the atlas to discover what kinds of physical features they will have to deal with (i.e. swamps).

4. The groups will then brainstorm various ways they could transport this cargo and deal with all the issues of water and weather. Encourage them to be original and creative, anything is possible as long as they use the materials, they shouldn’t feel limited by transports that already exist. Have the groups decide and plan out one mode of transport and start building it. Depending on the class and subject, the time for the planning and building will vary.

5. Have the students present their 3D transport models and explain why they chose that specific design and explain how it works.
Lesson 2:
The York Boat

Time:
2-3 hours depending on how much video is shown

Materials:
Quest for the Bay kit (video and book) call # KT 971 QUE at the LRC
York boat handouts (2 sheets of pictures, one article)
Métis historical trade routes map

Method:

1. Hand out the information sheets about York boats to the students. This may include two pages of York boat pictures, a short write-up about the boats and a map of the trade routes around central Canada the Métis used. Read over the information together as a class.

2. Watch the video “Quest for the Bay”. Have the students answer questions either during or after the video. There are some great before, during and after questions in the resource guide in the kit. The guide has additional information on fur traders and Métis culture, and includes lesson plans for various grade levels.
Lesson 3:  
The Red River Cart

Time:

1 hour

Materials:

Red River cart handout

Métis Red River Carts (reading can be downloaded from http://www.virtualmuseum.ca/Exhibitions/Batoche/docs/proof_en_metis_red_river_carts.pdf)

Model of the Red River cart from the LRC call # ML 971.004 RED or KT 971.004 RED

Method:

1. Depending on your grade level, have the students read the handout about the Red River carts.
2. The students will make a web about the readings, including such things as design features, uses of the cart, etc.
3. Students could do an exit slip at the end of class, answering one question such as “What are three interesting facts you learned about Red River carts today?” or “What is one question you still have about Red River carts?”. 
Lesson 4:  
Other Forms of Métis Transportation

Time:  
1-2 hour

Materials:  
César et son Canot d’écorce video (VT 970.004 CES This video is considered a French video but there is no speaking, and subtitles are used for each chapter. This is a great video for showing how to build a birch bark canoe in detail. Preview the video and decide whether you play the entire movie in the background or a small section for the class to watch.)  
Métis snowshoes (RL 971.004 MET)  
The Métis: Two Worlds Meet (KT 970.3 MET)  
Métis (KT 970.004 MET)  
Traditional Métis Transportation PDF - http://www.metismuseum.ca/resource.php/00728 (from THE VIRTUAL MUSEUM OF MÉTIS HISTORY AND CULTURE)

Method:  
1. Students will be divided into 4 groups (or more depending on your class size) to do a jigsaw about other forms of Métis transportation. Using the kits, video and information from the Traditional Métis Transportation PDF, make information centers.
2. Each group will become the masters of information about one other transportation, these groups are snowshoes (and moccasins), birch bark canoes, dogs (carioles, sleds, toboggans, travois, including pads and other decorations), and horses. If you need to create more groups you can divide the categories with brackets into smaller groups.
3. Students will individually make notes for themselves using whatever forms of note taking the class is familiar with (Power Notes, webbing, etc.). You may want the students to have some time in the library to research with books or on the internet.
4. Using pictures, videos, or whatever the students find, they will share with the class what they have learned. They must present this information in a way that is interesting and comprehensible for the other students to take notes on.
Historical Trade Routes

The map depicts historical trade routes, with annotations indicating past trade routes and the route along which the Hudson's Bay Company transported goods.

- Past trade routes (Hudson's Bay Company)
- "York boat" route from York Factory, route of Athabasca sevens, Saskatchewan steamboats and Red River boats.
- The route along which the Hudson's Bay Company carried its communications and goods from the western posts to Britain.
The York Boat

The York Boat was designed to transport Furs and Trade Goods for the Hudson Bay Company. The wooden boat was stronger and more capable of carrying heavier loads than the lightweight and more fragile canoes which were commonly used in the early days of the fur trade.

The York Boat got its name from its place of origin – York Factory, the Hudson Bay Company’s trading post, on the shores of Hudson Bay. Similar versions of the boat were in use as early as 1780 on the Albany River. By 1823 the York Boat design specifications had been established. The design is believed to have been based on the Orkney Whale Boat. It was a design that would remain unchanged until the 20th century. The boat was made using locally available soft wood. It was double ended and flat bottomed. It had one mast and sail, an 8’ beam and was 42’ in length. A York Boat could be built in 20 days by a crew of skilled men. There were hundreds in use in the fur trade.

Crewed by 10 men, the York Boat could haul up to 6 tons - the same amount of freight that it had previously taken up to 30 or so voyageurs in canoes to transport. Originally the crews were recruited from places such as the Orkney Islands, but over time, the boatmen became the Metis descendents of these original boatmen. The boats travelled in groups called brigades and carried trade goods and freight shipped from Great Britain via York Factory on the Hudson Bay. Their route followed the Nelson and the Hayes Rivers, down Lake Winnipeg to the Red River area. Brigades of York boats transported goods into the interior of the country. On return trips the boats carried furs from a winter season of trade.

It made economic sense to use the York Boats. Travel by water was three times faster than overland by Red River carts. Along the Carlton Trail from Winnipeg to Edmonton a Red River cart took 100 days to make the journey and could only carry 350 – 400 kilograms or 1000 pounds of furs or freight. In the summer season York Boats could make the trip in about a month. The boats travelled the northern river routes as far west as Rocky Mountain House, Alberta. It was a hard journey. The boatmen or trip men rowed up to 18 hours a day using 16’ oars at the rate of 30 strokes per minute. The men were wet day and night. Portages were grueling. The partially empty one ton boat had to be dragged over each portage. The crewmen were expected to carry two 90 pound bales of freight on their backs at a time until all the freight was transferred (70 – 100 pieces of cargo per boat).

It was all too much for one crew. In 1816, in what may be the only mutiny in inland Manitoba history there is a record of almost an entire crew who walked out on the Captain and left him stranded in the wilderness.
Boating up a shallow river

YORK BOATS
The Red River Cart

Red River Carts met the needs of the Métis people who traveled, hunted and traded over the vast distances of the prairies 150 years ago.

When pulled by oxen the carts were able to carry a load of about 1000 pounds and travel a distance of 20 miles a day. Pulled by a pony they could carry 500 pounds and travel 50 miles a day. Common loads were furs, buffalo meat and pemmican.

The design was adapted from carts common in Quebec and Europe, but unlike those carts with their iron wheels, the Red River cart, including its huge wheels, was made entirely of wood. There were advantages to this method of construction. In the wilderness, when repairs were needed, replacement parts were at hand in any wooded area.

The wooden wheels were huge, almost 6 feet tall and could be removed and attached under the box of the cart to facilitate river crossings. The hub of the wheels was also made of wood, as was the wooden axle. This design feature gave the cart its distinctive screech that could be heard for miles away. Grease was not used to help the wheels turn, because it attracted the prairie dust and mud, causing the wheels to seize up. The wheels were wrapped with rawhide strips (also called shaganappi) for strength and traction.