Trading at the Trading Post

Subject: Mathematics   Creator: Alison Kimbley
Strand: Number   Grade: 4

Content (topic)
Understanding Addition and Subtraction of Decimals

Outcomes	Indicators
N 4.8: Demonstrate an understanding of addition and subtraction of decimals limited to hundredths (concretely, pictorially, and symbolically) by: • Using compatible numbers • Estimating sums and differences • Using mental math strategies solving problems	**N 4.8a:** Approximate sums and differences of decimals using estimation strategies. **N 4.8b:** Solve problems, including money problems, which involve addition and subtraction of decimals, limited to hundredths. **N 4.8e:** Count back change for a purchase. **N 4.8f:** Explain the strategies used to determine a sum or difference.

Mathematical Processes
• Mental Mathematics and Estimation • Problem Solving • Reasoning • Visualization • Communication

Lesson Preparation
Equipment/materials: • Index cards which have the beaver pelts as well as the trade goods • Story of Thanadelthur Advanced Preparation: • Prepare index cards with pictures of fur bearing animals that represent the pelts as well as the trade items. • Arrange the room appropriately that will allow space for the different groups.

Presentation
Set • Show the class a picture of Thanadelthur and share the PowerPoint presentation with them. • Read the story of Thanadelthur: In 1713, the Cree captured Thanadelthur when she was a teenager. However, with the help of fur traders, she was able to escape and make her way to York Factory trading post. It was there that she told the traders that the Denesuline wanted to trade furs too. She also told the traders of the many furs

found in the north. The traders agreed to map and voyage the area and asked Thanadelthur to be their guide. The group then embarked on a journey that took just under a year. On her return from York Factory, Thanadelthur taught the Denesuline which furs were most valued by the British and she showed them how to prepare the furs to get the highest prices in return. Thanadelthur's role in the fur trade helped the fur trade to expand and she earned respect from both the Aboriginal people and the British fur traders.

Development

- Have the students explore the fur trade charts (Appendix A) in order to determine how many furs were needed for products.
- Have the students discover mathematical patterns by role-playing a trading post.
- Tell the students that they will be trading items once traded by Aboriginal people (such as the Denesuline people) and the Europeans. Half the class will serve as the Aboriginal traders and draw a variety of fur bearing animals, such as the beaver, lynx, otter, raccoons and coyotes, whereas the other half of the class will need to draw pictures of items brought from Europe such as blankets, axes, knives, coils of rope, beads, etc.
- Find places in the room where small groups can start up trading posts. Explain to the class that trading posts were where fur traders typically displayed their goods. Students will take turns being the clerk who usually worked for the Hudson Bay Company. Have the Aboriginal role-players take turns bringing the furs to the clerk. It was the clerk who normally handles the trades for the HBC and the clerk would use multiplication in order to determine the exchange.
- The students playing the part of the Aboriginal people in the fur trade will take turns bringing the furs to trade at the trading post. They and the traders should refer to the posted "Value of Furs" and "Value of Trade Goods" charts to determine the number of required furs.
- Before the students start this activity, provide them with an example of role-play. For example at one of the designated stations, approach the students with a number of pelts and ask for a certain trade item. Estimate how many more pelts you would need to equal the correct amount for the trade item. The clerk will need to solve this problem by finding out the exact amount of pelts needed. After the clerk has determined the amount, the European trader (the student who the trade item belonged to) will then count back change from the purchase. The person who had traded must explain the strategies used to determine a sum of difference in the numbers.
- It is important the students understand that in the fur trade, the HBC clerks ensured that the numbers were exact and therefore did not estimate the sums. However, in this exercise they will be estimating prior to solving each problem.

Appendix A

Value of Furs:
1 Beaver = 2 Lynx = 2 Land Otters = 3 Raccoons = 4 Coyote

Value of Trade Goods

1 blanket = 3 beaver	20 fish hook = 1 beaver
4 file = 1 beaver	400 m. rope = 1 beaver
4 mirror = 1 beaver	8 knife = 1 beaver
1 tin pot = 1 beaver	12 needles = 1 beaver
1 kg beads = 1 beaver	1 axe = 1 beaver
1 pair shoes = 1 beaver	1 long gun = 10 beaver
2 combs = 1 beaver	2 scissors = 1 beaver
1 yard blanket = 6 beaver	4 spoons = 1 beaver
1 shirt = 1 beaver	1 skein twine = 1 beaver
1 yard broadcloth = 2 beaver	2 powder horns = 1 beaver
1 ½ lbs powder = 1 beaver	20 flints = 1 beaver
1 pair stockings = 1 beaver	1 lb black lead = 1 beaver
2 net lines = 1 beaver	4 fire steels = 1 beaver