Fur Trade- Equations

Subject: Mathematics   Creator: Alison Kimberley
Strand: Patterns and Relations   Grade: 6

Content (topic)
Exploring Relationships through Equations

Outcomes	Indicators
P6.3: Extend understanding of patterns and relationships by using expressions and equations involving variables.	**P 6.3c:** Describe and represent geometric patterns and relationships relevant to First Nations and Métis peoples and explain how those patterns or relationships could be represented mathematically. **P 6.3e:** Generalize an expression that describes the relationship between the two columns in a table of values. **P 6.3f:** Write an equation to represent a table of values.

Lesson Preparation
Equipment/materials: • An activity sheet (Appendix B for each student

Development:
• Explain to the students that the fur trade was one of the earliest and most important industries in North America as it played a role in developing the continent. • The fur trade started shortly after contact in 1500 between First Nations people and Europeans. First Nations people traded furs for weaponry and other items. • Show students the PowerPoint presentation, which provides **information on the fur trade and the Hudson Bay Company.** • Explain to students that the Hudson Bay Company hired commanders of ships, such as Michael Grimington to bring goods from Europe for the trading posts. • On an overhead projector or data monitor show the students **the official table** that was made by Captain Grimington in 1710. (Appendix A) • The associated PowerPoint presentation contains **photographs and information on a number of items in the table.** • Display the trading goods table below on an overhead screen. Have each student complete the activity sheet.

References: A copy of the invoice of trading goods sent over this year from England by Captain Michael Grimington, commander of the Hudson Bay frigate can be found at http://www.canadiana.ca/hbc/_popups/PAMalbany1_e.htm

Appendix A
Trading Goods

A copy of some items extracted from he invoice of trading goods sent over from England Captain Michael Grimington, commander of the ship called Hudson Bay. (Lbs is a short form for the weight measure in pounds. A pound is approximately 450 grams.)

144 Pewter Spoons	72 pairs stockings
350 brass kettles weighing 1020 lbs	72 pairs shoes
100 lbs thread	144 powder horns
450 guns	580 hatchets
4000 glints	72 egg boxes
24 bayonets	160 shirts
288 fire steels	792 ivory combs
72 files	36 horns
500 worms	216 tobacco boxes
2200 needles	144 pairs of scissors
324 fish hooks	255 blankets
144 alchemy spoons	

Appendix B
Activity Sheet

1. 24 bayonets were counted and recorded by Captain Michael Grimington in 1710, year 1. Assume that the trading post sold 7 bayonets every year for thirteen years.

   a. Create a table that shows the number of bayonets available for sale at the beginning of years 1, 2, 3, 4 and 5.
   b. In words, describe the pattern in the table of data.
   c. Write an expression to represent the pattern in the table.
   d. Determine the number of bayonets available for sale at the beginning of the year 1723. Describe the strategy you used to find this.

2. 2200 needles were counted and recorded by Captain Michael Grimington in 1710. Assume that the trading post sold 20 needles every year for ten years.

   a. Create a table that shows the number of needles available for sale at the beginning of years 1, 2, 3, 4 and 5.
   b. In words, describe the pattern in the table of data.
   c. Write an expression to represent the pattern in the table.
   d. Use the expression to determine the number of needles available for sale at the beginning of the year 1720.

3. 72 files were counted and recorded by Captain Michael Grimington in 1710. Assume that the trading post sold 4 files every year for seven years.

   a. Create a table that shows the number of files available for sale at the beginning of years 1, 2, 3, 4 and 5.
   b. In words, describe the pattern in the table of data.
   c. Write an equation that represents this table.
   d. Determine the number of files available for sale at the beginning of the year 1717. Describe the strategy you