Subject: Mathematics Strand: Patterns and Relationships	Creator: Alison Kimbley Grade: 6
Content (topic)	
Exploring tables of values and graphs	
Outcomes	Indicators
P6.1 Extend understanding of patterns and relationships in tables of values and graphs	P 6.1b: Create a table of values to represent a concrete or visual pattern.
	P 6.1g: Analyze patterns in a table of values to solve a given situational question.
	P 6.1h: Translate a concrete, visual, or physical pattern into a table of values and a graph (limit graphs to linear relations with discrete elements).
	P 6.1 m: Research a current or past topic of interest relevant to First Nations and Métis people and present the data as a table of values or a graph.
Lesson Preparation	
Equipment/materials:	
 Task cards of fur trade items 	
Advanced Preparation:	
 Print and prepare the task cards a 	as described in Appendix 2. Place them
face down in three piles by color.	
Print a copy of the activity sheet	for each student. (Appendix 3)
Presentation	
Development	iur trade was one of the earliest and
• Explain to the students that the fur trade was one of the earliest and	
developing the continent	
 The fur trade started shortly after contact in 1500 between First Nations 	
people and Europeans.	
First Nations people traded furs f	or weaponry and other items.
Show students the PowerPoint pro	esentation, which provides information
on the fur trade and the Hudson	Bay Company.
• Explain to the students that the H	ludson Bay Company hired commanders
of ships, such as Michael Griming	ton to bring goods from Europe for the

Fur Trade- Graphs

trading posts.

- On an overhead projector or data monitor show the students <u>the official</u> <u>table</u> that was made by Captain Grimington in 1710. The associated PowerPoint presentation contains <u>photographs and information on a</u> <u>number of items in the table.</u>
- Display the trading goods table below on an overhead screen. Have each student complete the activity sheet. (Appendix 3)

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

Appendix 1 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 2

Print a copy of the three tables below, cut out the individual items and paste onto construction paper of the appropriate color.

144 pewter spoons	144 alchemy spoons
350 brass kettles weighing 1020 lbs	160 shirts
450 guns	216 tobacco boxes
288 fire steels	144 pairs of scissors
500 worms	255 blankets
324 fish hooks	

Items on Blue Paper

Items on Green Paper

100 lbs thread	72 pairs shoes
24 bayonets	144 powder horns
72 files	72 egg boxes
72 pairs stockings	36 horns

Items on Red Paper

4000 flints	580 hatchets
2200 needles	792 ivory combs

Appendix 3 Activity Sheet

1. Draw a trade from the blue card pile; write down which item you chose and then replace the card.

The card you choose tells you how many of these items were delivered to the trading post by Captain Michael Grimington in 1710, year 1. Suppose that the trading post sold 10 of these items in each year for 5 years, (1 year, year 2, year 3, year 4, and year 5).

- a. Which item did you choose?
- b. Make a table that shows the number of items available for sale at the beginning of year years 1 to 5
- c. Construct a line graph of the data in the table with year on the horizontal axis.

Year	Number of Items Remaining
1	
2	
3	
4	
5	

2. Draw a tale from the green card pile; write down which item you chose and then replace the card.

The card you chose tells you how many of these items were delivered to the trading post by Captain Michael Grimington in 1710, year 1. Suppose that the trading post sold 10 of these items in each year for 5 years, (1 year, year 2, year 3, year 4, and year 5).

- a. Which item did you choose?
- b. Make a table that shows the number of items available for sale at the beginning of year years 1 to 5
- c. Construct a line graph of the data in the table with year on the horizontal axis.
- d. If the trading post continues to sell 10 items per year in what year will the trading post sell the last item? Describe the strategy you used to find this.

Year	Number of Items Remaining
1	
2	
3	
4	
5	

3. Draw a trade item from the red card pile, write down which item you chose and then replace the card.

The card you chose tells you how many of these items were delivered to the trading post by Captain Michael Grimington in 1710. Suppose that the trading post sold 15 of these items in each year for 5 years.

- a. Which item did you chose?
- b. Construct a table that shows the number of items remaining in years 1 to 5.
- c. Construct a line graph of the data in the table with year on the horizontal axis.
- d. If the trading post continues to sell 10 items per year how many items will be remaining at the end of 1724? Describe the strategy you used to find this.

Year	Number of Items Remaining
1	
2	
3	
4	
5	