

## Four-Digit Numerals

Subject: Mathematics  
Strand: Number

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Grade: 4

Content (topic)	
Exploring Numbers up to 10 000	
Outcomes	Indicators
<b>N 4.1:</b> Demonstrate an understanding of whole numbers to 10 000 (pictorially, physically, orally, in writing, and symbolically) by representing, describing, comparing and ordering.	<b>N 4.1a:</b> Read a four-digit numeral without using the word “and.” <b>N 4.1b:</b> Write a numeral using proper spacing without commas. <b>N 4.1c:</b> Represent a number from 0 - 10 000 in words. <b>N 4.1d:</b> Represent a numeral using a place value chart or diagrams. <b>N 4.1h:</b> Explain and show the meaning of each digit in a 4-digit numeral with all digits the same (e.g., for the numeral 2222, the first digit represents two thousand, the second digit two hundreds, etc. <b>N 4.1i:</b> Explain the meaning of each digit in a 4-digit number representing a particular quantity.
Mathematical Processes: <ul style="list-style-type: none"><li>• Communication</li><li>• Connections</li><li>• Reasoning</li><li>• Visualization</li></ul>	
Lesson Preparation Equipment/materials: <ul style="list-style-type: none"><li>• A loom</li><li>• A set of pony beads</li><li>• Wool</li></ul> Advanced Preparation: <ul style="list-style-type: none"><li>• <a href="#">*Instructions for making a loom*</a></li><li>• Learn how to bead the loom.</li><li>• Change the number of beads on the loom to represent a number or, if more than one loom is available, have them prepared ahead of time.</li></ul>	
Presentation	

## Development

- Teach the students about the significance of beads. For example, beading has been an important part of First Nations culture for approximately 8 000 years prior to European contact. Beads were made of shell, pearl, bone, teeth, stone, and fossil stems. Glass beads became a part of First Nation and Métis culture when the explorers came from Europe and brought seed and glass beads as trading items.
- Explain to students that each tribe had distinct designs, patterns, and approaches; therefore, collections of First Nations beadwork art includes many different designs, styles, traditions and stitches. In Saskatchewan, the Plains Cree People use a lot of symmetry in their patterns as well as distinctive geometrical shapes.
- Show the students the wooden loom. Explain that a lot of First Nations beadwork was done on looms, which were made from wood in a variety of sizes depending on the piece or artwork.
- Tell the students to compare the loom to a set of numbers where each of the four threads on the loom represents a value. For example, the first out of the four threads or wool is in the spot of the thousands, whereas the third string symbolizes the hundreds, etc.
- Next, explain that the beads on each string will represent a numerical value; therefore, if five beads are on the fourth string, the beads will stand for the number five.
- Use the loom to place beads vertically with a specific number of beads on each thread and show the students who will wait for thirty seconds (to ensure all students have the opportunity to view and process the number) and as a class say the number aloud. Ensure that the number is repeated and if you hear an “and” for the configuration (e.g., seven thousand one hundred AND twenty four), remind students this is wrong and repeat until the word “and” is no longer used.



- Next, have the students write the numbers in their math books. As you are changing numbers on the loom, remind students they should not be using commas, but instead use the proper spacing. Among the example you present to the student, ensure that at least one has all the digits the

same and at least one has a zero as one of its digits.

- (Extension) If students seem to understand this concept, adding an additional string to the loom can extend this lesson. Ask the students what place value the first string will then represent. (Answer: Ten thousands)