Ratios and Percentage Lesson Plan

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Grade Level:
Four

Materials:
Cassandra interview, Indian taco transparency, paper, and pencils

Pre-requisite Knowledge:
ratios, percentage

Before completing this lesson, have students watch the video on Cassandra Opikokew, graduate from the University of Regina's School of Journalism. She serves as a great Aboriginal role model for students. In the video, students will see the connection of mathematics to real life, demonstrating that you need to know ratios to be a journalist.

Introduction:
Recall what ratio is with your students. If this is the first time they are working with ratios, have them record a definition in their math logs. As an activity determine the boy to girl ratio in the classroom. You can also determine the ratios of many other things using the students.

Also at this time, introduce or recall what percentages are with your students.
On the overhead place a transparency of an Indian taco, round in shape. With an overhead marker, slice it into quarters, and have the students determine what percentage each piece would be? Two pieces? Three pieces?

Follow the link for a picture of an Indian taco or feel free to use an example of your choice.
http://image.examiner.com/images/blog/wysiwyg/image/taco2.jpg

Activity:
The local news station has just hired you as a reporter. Your first event is to film the events happening on National Aboriginal Day. Your boss would like you to find out the following for the news at 6:00 P.M.:

> There are 14 girls and 12 boys at the Métis finger-weaving session. What is the ratio of girls to boys at the weaving session?

> You are running late for watching grand entry. However, you catch the following as you are standing behind a group of people: 8 traditional dancers, 6 jingle-dress dancers and three community members. From those you did catch, what is the ratio of dancers to community members?

> There is some commotion on the other side of Wascana Park. Some Métis jiggers have let loose on the Red River jig! There are both adults and children performing fancy steps left and right. The Riel Reelers make up half the crowd, and the rest of the people are audience members that have joined in on the fun. What percentage of the dancers do the Riel Reelers make up?

> It is almost the end of the festivities for the day and you are done filming for the day. You notice that one of the food stands is selling bannock for 75% off. You would like to buy two pieces of bannock, one to fill your gut after a long day's work, and one for later. If the regular price is $1.00 each piece, how much is it going to cost you for two pieces at the discounted price?

Extension:
In groups or partners have students create their own ratio and percentage questions for something like National Aboriginal Day, National Aboriginal History Month, Louis Riel day, Treaty Days, etcetera. You can make this into a handout or have students swap questions with another pair or group.

Through both the lesson and the extension activity you are fostering a traditional type of teaching, which is experiential learning - learning by seeing or doing.

Recommended Children's Literature:
Burton, Wilfred & Patton, Anne. "Fiddle Dancer" (Métis jigging)