

First Nations and Metis People and Science Education

Good evening to all you science enthusiasts! Mr. Minister Rondeau, Elders, Professors, graduate students, mentors, chaperones, staff of migizi akumik, founder and president Ron Woznow, students in whose honour we gather here this evening.

It's a pleasure to be here with you. Thank you to Wilfred Buck and his drum group known as Loud Sounding Thunder from the Manitoba First Nations Education Resource Centre for being with us this evening to support the efforts of you fine young people participating in this science education program.

Students, I know that this has been an inspiring week for you. You have witnessed several facets of science. Whether you choose to study biology, botany, medicine, agriculture, astronomy, ecology, navigation, to name only a few, you are dealing with science. If you want to work directly with First Nations and Metis people whether it is in land claims settlements, use and conservation of lands and resources, flooding, you need scientific skills. Our people need expertise in the prevention of diabetes or kidney disease that often later confines them to dialysis treatment. You might be the one to find a unique way to successfully prevent any number of serious health challenges experienced by our people. We need you to think seriously of making science education your goal. You need to break trail for others to follow.

In our session yesterday, I asked if you had set a goal for yourselves. It was great to hear that one of you wants to be a doctor, two or three mentioned nursing, another said a teacher and I suggested that she think of being a science teacher. To all of you I said "Great, you all need science". Then one person said she wanted to be a carpenter and guess what, I didn't immediately see a science connection. As I thought it over, it came to me, she will have to consider wood, nails, glue or whatever they use to build our reserve homes. Of course, there is a science element there.

I recently read an interesting article in a Journal about Aboriginal Knowledge and Science Education that suggests that Aboriginal science begins with place, your place, be it your home community or the north. Place is important to First Nations and Metis people. We should become

acquainted with how the people in our respective places knew or know science concepts. What was/is our people's "ways of knowing"? The primary purpose of science is to investigate "ways of knowing and caring for place".

I think of my grandfather and my father who were fisherman on Lake Winnipeg. Often alone, in a skiff, how did they know that it was safe to head out to set or lift their nets at 3 o'clock in the morning? How did they find their way in the vastness of the lake, sometimes covered in fog, where somewhere miles away, a buoy with a flag marked where their nets were located? They learned by observation and experience. That is science.

Here's an old joke that circulated for many years. There was an elderly Aboriginal man who became known as a good weather forecaster. He knew if it was going to rain or snow or be bright and sunny or windy. Many non-Aboriginal people came to rely on him for the forecast. One day, a man came by to check with him on the weather. To the man's surprise, the old man said "I don't know". Why can't you tell me today – you have been telling the forecast for weeks. The Elder replied "Radio Broke". That had to be before television.

If you have not thought of this before, when you go home, think of it as your starting point, your place. See what modern science can contribute to your family's and community's well-being. Talk to your grandfather, your parents, the community Elders and learn from them about their "ways of knowing". Write about Metis Ways of Knowing, Cree Ways of Knowing, Dene Ways of Knowing". Aboriginal academics refer to this as indigenous knowledge.

Think about how science education can help create a better place for our people. As you experienced this week, you have laboratories with modern technology to find answers to whatever interests you.

I was pleased to have the opportunity to observe two of you working in the Richardson Centre for Foods. You will never guess what they were making! Bannock. I wonder if Georgina would mind sharing with you what they were doing.

I was also very interested to learn from Derrick what he discovered when he analyzed boxes of cereal. Derrick.

They made yogurt and were grinding juniper berries to make tea. Who was working on that?

I later learned others were working on soil and water. They were checking the water for bacteria from the Red River, taps, toilet bowls. What did you find out? When we were chatting Elder Gary suggested that the toilet bowl water likely had less bacteria than the Red River. We remembered when we could drink clear clean water from our rivers. Reminded me of a joke--.

Another student was studying bones. There was some story about a tooth that I didn't quite get.

Seeing what they are studying I could see that our communities are living laboratories that could be better utilized as science is being taught in our schools. We have bannock, juniper berries, soil, water and bones.

Finally in our session yesterday I asked the students to be ambassadors of science to their classmates and all the children in their community. As ambassadors what would they say.

1. Science makes us know why we do what we do; how we do what we do; shows how everything was created (Sydney)
2. Science can help save lives (Derek)
3. There are many fields of science – many job opportunities
Helps people, helps the earth, helps yourself.
4. Science is a fun way to learn about many things that are involved in life.

Students thank so much for sharing your thoughts.

It was a pleasure to meet you. Thank you and I wish you success in your future. I hope to see you back here in the labs after your high school graduation.

Certificates and gifts from Deborah Young, the Executive Lead in the President's Office.

I'm pleased to present to you a well deserved certificate that will remind you of this week at the University of Manitoba. I would like Dr. Ron Woznow,

to join me. Ron is the Founder. It is because of his great interest and determination that this Science Education program is possible.

Verna J. Kirkness
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