



Two-Eyed Seeing and Science: The Role of Alberta's Science Centres

Treaty Land Acknowledgement

TELUS World of Science – Edmonton is honoured to be a steward on the lands of Treaty 6 and the Métis Nation of Alberta Region 4. We also acknowledge the lands of Treaty 8, home for our project partners from the Northland School Division. We recognize these lands as the traditional and contemporary homes of many First Nations, Métis, and Inuit peoples. We embrace curiosity and will continually search for better ways to uphold the values of peace, friendship, and understanding at the core of our treaties.





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TELUS WORLD
of SCIENCE
Edmonton

STRATEGIC PLAN
2019-22

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Edmonton



STRATEGIC GOAL 1

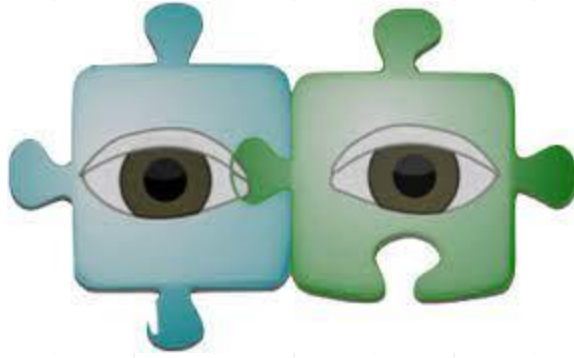
Celebrate our science, our place

3. Develop and deliver science programs aimed at Indigenous populations in Edmonton and other Northern Alberta communities

We have a great opportunity and obligation to build relationships with Indigenous communities in our region.

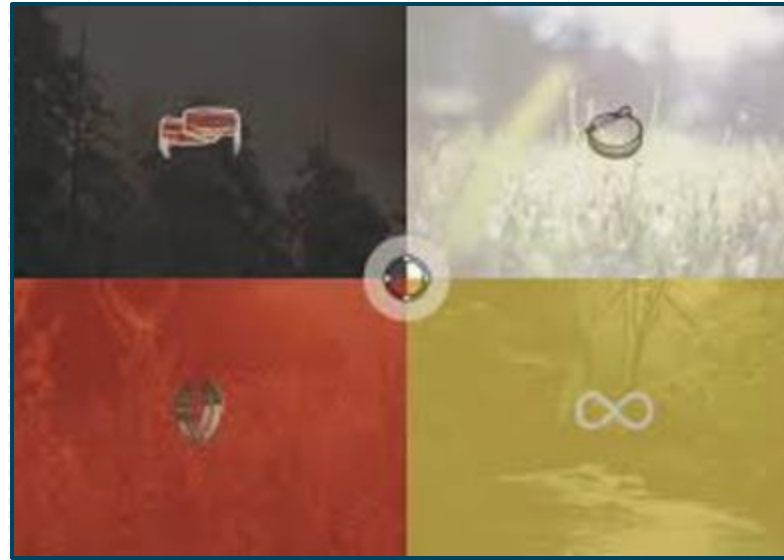
- ▶ Evaluate how to apply the findings of the TRC to TWOSE.
- ▶ Begin a program of relationship building with Indigenous communities and nations.
- ▶ Create spaces and programs to engage Indigenous peoples inside the science centre.
- ▶ Build a program of programs and experiences that can serve Indigenous communities across Northern Alberta.





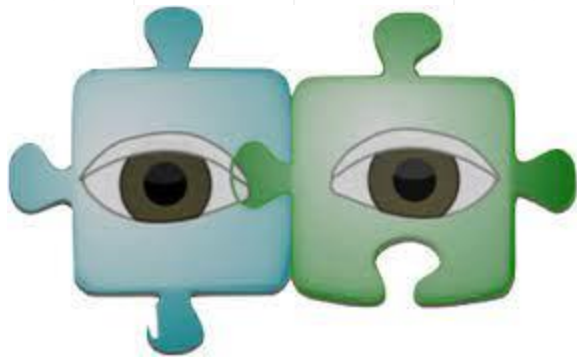
Initiating a Partnership and Building a Relationship

Northland School Division Perspective



Telus World of Science Edmonton Perspective





Two-Eyed Seeing

Traditional Ways of Knowing

Aboriginal Knowledge is not written down, contained in textbooks, or stored on shelves for reference or posterity. All things are considered living and spiritual, related and interrelated, and critical to life and living (Gregory Cajete, 2000).

Two-Eyed Seeing Framework

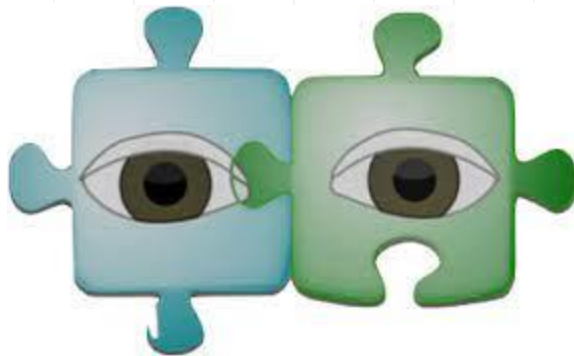
Mi'kmaq Elder, Albert Marshall and Dr. Cheryl Bartlett coined the phrase, "Two-Eyed Seeing more than 2 decades ago."

Two-Eyed Seeing refers to the traditional Mi'kmaq understanding about the gift of multiple perspectives - a gift treasured by many Indigenous peoples.

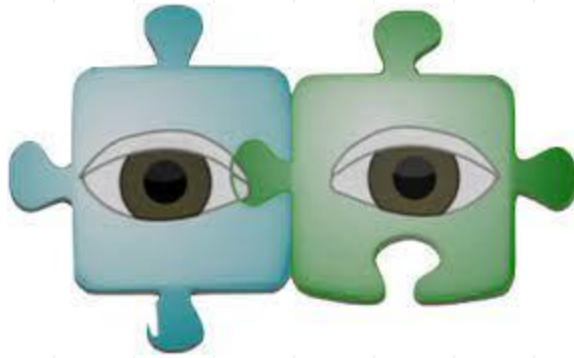
Two-Seeing refers to the learning to see from one eye with the strengths of, or the best in, Indigenous knowledge and ways of knowing and from the other eye with the strengths of, or best in, Western ways of knowing, but most importantly, learning to use both eyes together for the benefit of all.







Supporting Teachers with Knowledge Coexistence



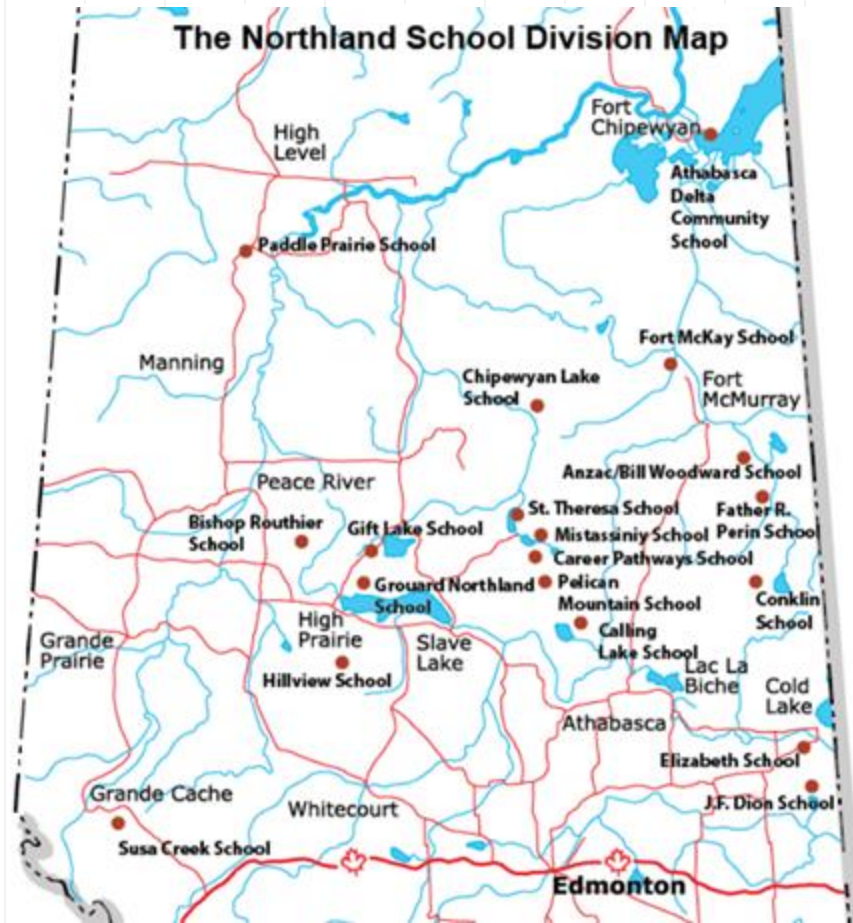
Science in Motion (SIM)



Relationships



Where are Northland Students at?



First Impressions!



SIM Science Week

Ignite Curiosity. Inspire Discovery. Celebrate Science. Change Lives.

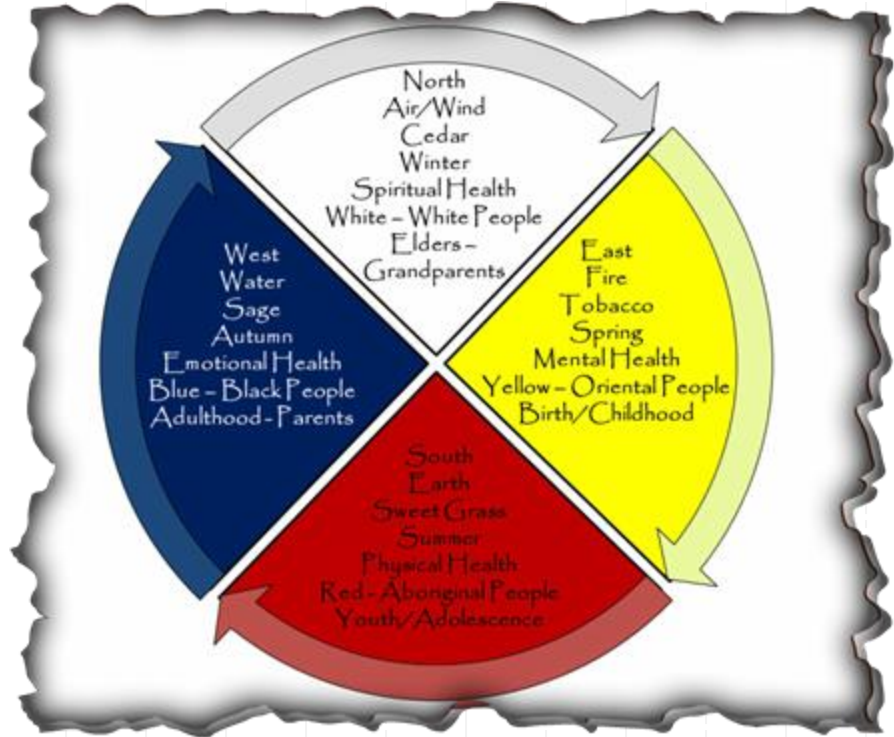


Two Eyed Seeing - A Journey





Inspiration Perspective Connection



The diagram on the screen is a circular chart divided into four quadrants, each representing a cardinal direction and containing a list of words:

- North (Grey):**
 - North
 - Arctic
 - Winter
 - Supernatural
 - White - White People
 - Elves
 - Conversations
- West (Blue):**
 - West
 - Water
 - Waves
 - Autumn
 - Emotional Health
 - Pink - Black People
 - Adolescent Friends
- East (Yellow):**
 - East
 - Fire
 - Tulips
 - Spring
 - Mental Health
 - Yellow - Oriental People
 - Bank / Childhood
- South (Red):**
 - South
 - Earth
 - Summer
 - Supernatural
 - Emotional Health
 - Black - Adolescent

Below the diagram, there is a line of text: "The 4 elements came to North America, or Turtle Island, indigenous cultures celebrated, studied and understood the 4 elements. This is often illustrated in metaphors by using the four seasons. The metaphor usually use and also comes from nature as there are similarities between the four seasons and the four elements to the 4 elements." The screen also shows a Windows taskbar at the bottom with various icons and a system tray.

SIM Science Week: Earth's Superpowers

The 4 Elements



EARTH



WATER



FIRE



AIR

Stay tuned, we'll get started shortly.



Honouring Air – Assembly of First Nations:

"Air is a life giving force and necessary for survival. The element of Air stands for the life force that brings all people into existence from their first breath. The ancient ones have long understood that the wind is an intermediary which connects the physical world to our spiritual world. It is a symbol of the mental and spiritual connection between the physical and the spiritual, bringing understanding and insight and form."





Science Week Components

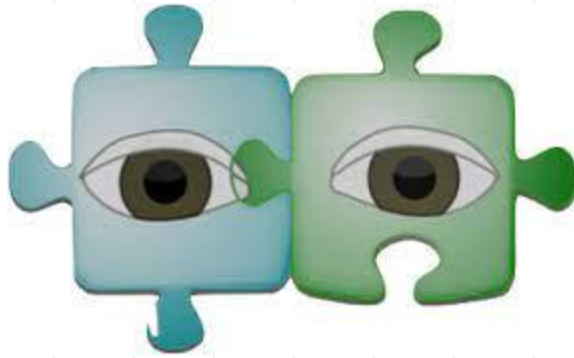


Helen Panter

Public Outreach Education Officer, Southwest Northwest Territories Field Unit - Parks
Canada / Government of Canada





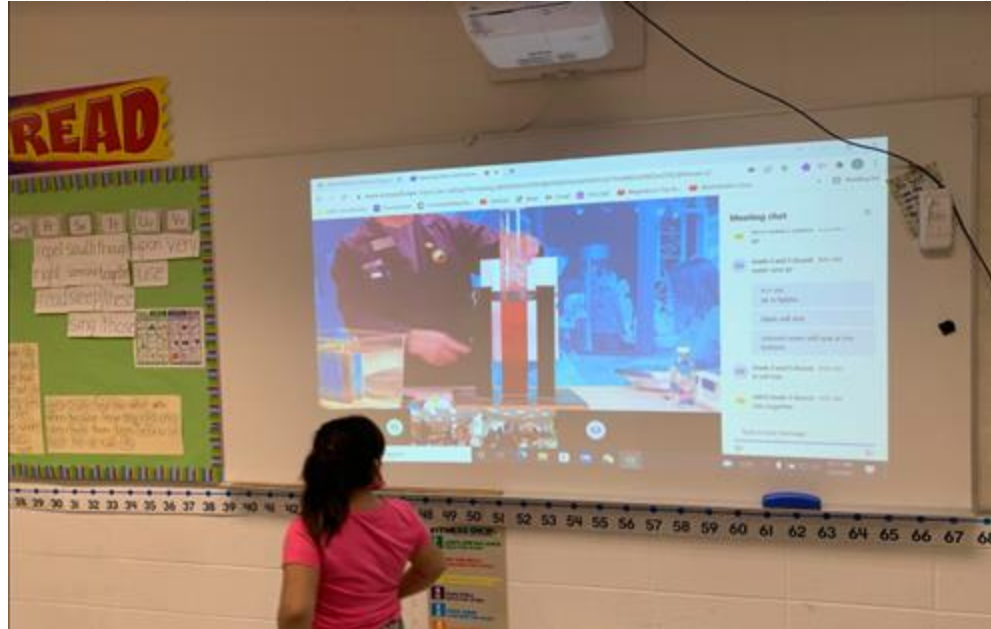


Student and Teacher Experience

Key Components of the Working Relationship



Supporting Students and Teachers



Teacher Feedback

"I Learned techniques and strategies that will help me improve science exploration in my classroom."

"The sessions engaged students in ways that got them more excited about science than they had ever been before ."

"TWOSE provided access to science content knowledge and skill that allowed for the learning to be taken to a higher level".

"Gave me ideas for lessons and experiments that were more active and hands on".

"The showcase gave students the opportunity to share their learning with a wider audience which was motivating and exciting for them."

"The lessons and experiences helped us see science in a more holistic way."

"Demonstrated how science learning can take students outside and involved science on the land right in our own school backyard."

Just the Beginning.....

Science Weeks (Winter, Spring, Earth's Superpowers)

Themed Special Events (Addams Family Halloween)

Virtual Grade Level Programming (Alberta Science Unit Topics)

IMAX Experiences (Great Bear Rainforest)

STEM Events (Women in Engineering)

Traveling Nature Exchange



Data Tells the Story

32 science sessions/events to date

The Earth's Superpowers Science Week

Participant Data

Tuesday

27 classes
351 students

Wednesday

21 classes
273 students

Thursday

23 classes
299 students

Friday

15 classes
195 students

Spring Science of Nature Week

Participant Data

Monday

34 classes
501 students

Tuesday

37 classes
566 students

Wednesday

31 classes
466 students

Thursday

25 classes
387 Students

Friday

22 classes
355 Students

Science Grade Level Topic Lessons

Participant Data

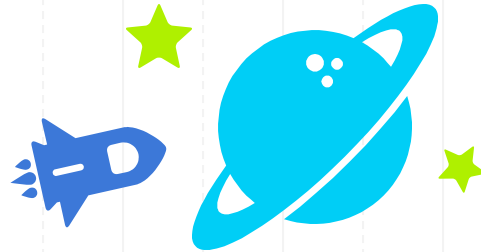
9 sessions
6 Gr. 1-6 science units
12 schools
32 Classes
429 students

Great Bear Rainforest IMAX Experience

Participant Data

15 classes accessed the IMAX
9 schools
282 students





**How can your school
become part of this
journey?**

For more information
twose.ca/CASS