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Institute for  
Integrative Science & Health

**Assisting the transformative movement  
within Canada's health care system  
via "healthy living" (pillar #4)  
in the "Primary Health Care" strategy:**

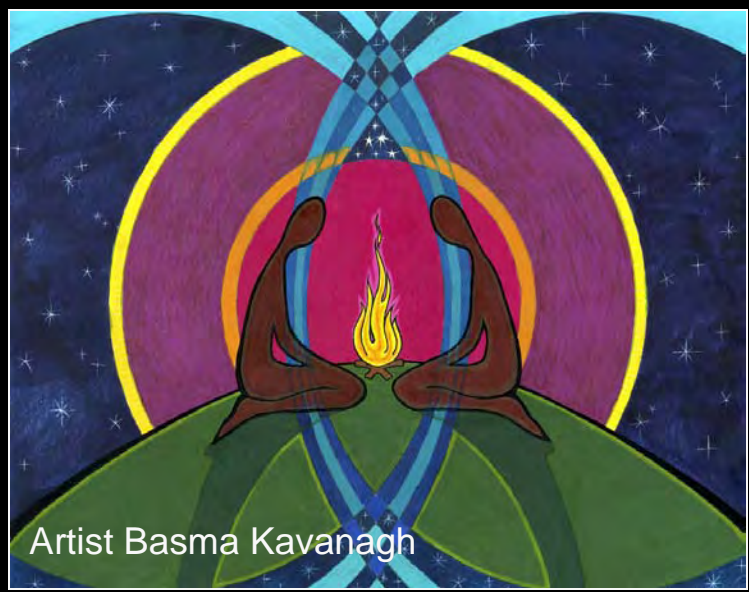
**fostering capacity for creative relationship,  
creative choice, and two-eyed seeing**

Cape Breton Health Research Symposium; 26 May 2006

**ABSTRACT:** September 2005 saw launch of the pan-Canadian awareness campaign re the Government of Canada's commitment to transformation in Primary Health Care (PHC) through four key pillars: health care providers working in teams; improved sharing of information among health care providers and patients; better access to health information and the right services; and healthy living (<http://www.primaryhealthcare.ca/>). This presentation will address "healthy living" inclusive of Aboriginal understandings, as has emerged within a co-learning journey by university researchers and Mi'kmaq Elders during a community-based, participatory health research project in Cape Breton funded by the Canadian Institutes for Health Research - Institute for Aboriginal Peoples' Health (CIHR-IAPH). The project, entitled "Integrative Health and Healing: co-learning our way to expanding wholeness through restoration of relationships with the land", has sought ways to revitalize traditional Mi'kmaq understandings about inter-connectiveness in the cosmos, towards relevancy in the lives of today's children. I.e., the project chose to focus on projects thought to foster root level growth for healthy living and healthy communities by re-introducing creative relationship and creative choice as elements in the life paths of children. Funding to enable extension of the overall CIHR-IAPH project into action-based sub-projects for community youth has been provided by the IWK Health Centre Foundation, the Nova Scotia Health Research Foundation, and the Mounted Police Foundation. The presentation will mention sub-projects that sought to foster experiential understanding of creative relationship and creative choice via new awareness of language, story, self, and ecosystem. It will also explain the project within the larger context of "Integrative Science", an initiative that emerged at Cape Breton University and that is defined as "bringing together Indigenous (Aboriginal) knowledges and Western (mainstream, orthodox, or Eurocentric) knowledges". Mi'kmaq Elder Albert Marshall of Eskasoni First Nation has offered Integrative Science the descriptive label of "two-eyed seeing" in reference to one of its core principles, namely that we must learn to see from our one eye with the strengths of the Indigenous knowledges and ways of knowing, and from our other eye with the strengths of the Western scientific knowledges and ways of knowing ... and, furthermore, that we must learn to use them together in our contemporary projects and community endeavours for the benefit of all. This "together" often requires a mindful "weaving back and forth between" the perspectives of Indigenous and Western knowledges, along with conscious efforts to avoid domination or assimilation. The project's core team suggests this is essential in order to move towards "healthier walking and working together" of Aboriginals and non-Aboriginals in Canada today, i.e. an issue of great relevance for many Canadians re PHC Pillar #4 but not one necessarily envisioned by those who drafted the strategy for transformation within Canada's health care system.

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Canada Foundation for Innovation / Fondation canadienne pour l'innovation

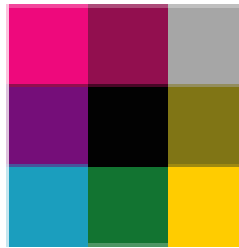


Artist Basma Kavanagh



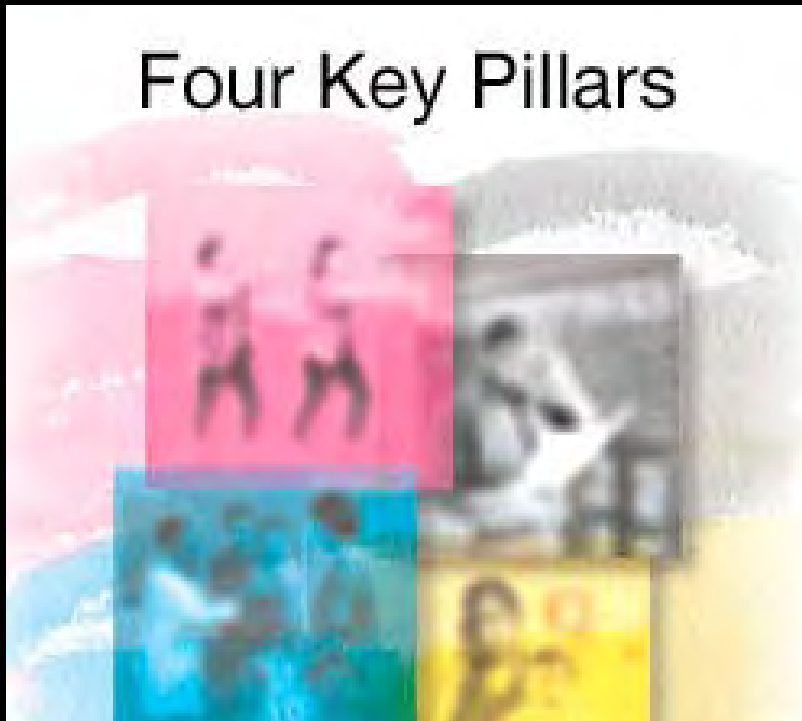
Royal Canadian Mounted Police / Gendarmerie royale du Canada

National  
**Primary Health Care**  
Awareness Strategy



Stratégie nationale  
de sensibilisation aux  
**soins de santé primaires**

## Four Key Pillars



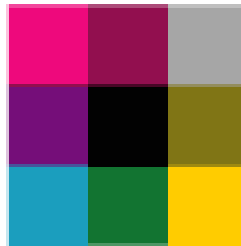
[<http://www.phc-ssp.ca>]

1. Teams
2. Information
3. Access
4. Healthy Living

Sept 2005: launch of national awareness campaign of government commitment to transform “primary health care”

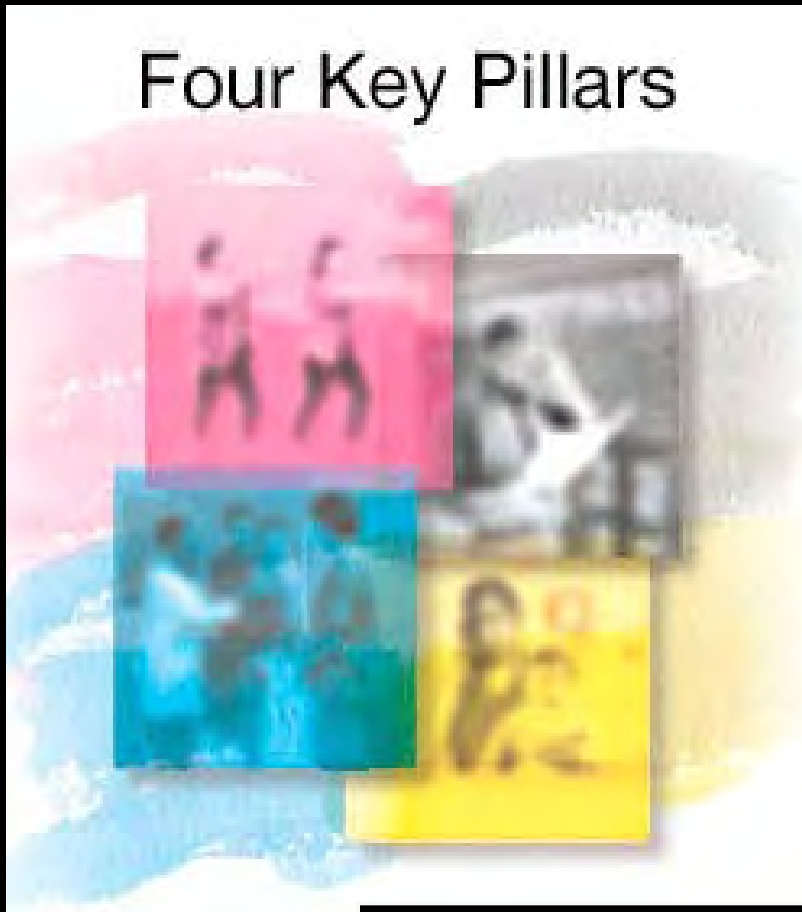
**PHC transition period: 2000 - 2006**

National  
**Primary Health Care**  
Awareness Strategy



Stratégie nationale  
de sensibilisation aux  
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## Four Key Pillars

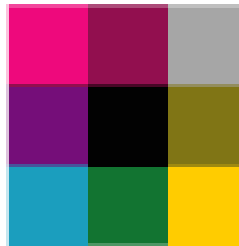


## 4. Healthy Living

... focuses on keeping individuals healthy, not just treating them after they have become sick. It's about managing chronic disease, preventing illness, and encouraging self-care. It is also about healthy communities and a healthy environment, and understanding that many factors outside of the health system influence an individual's wellbeing.

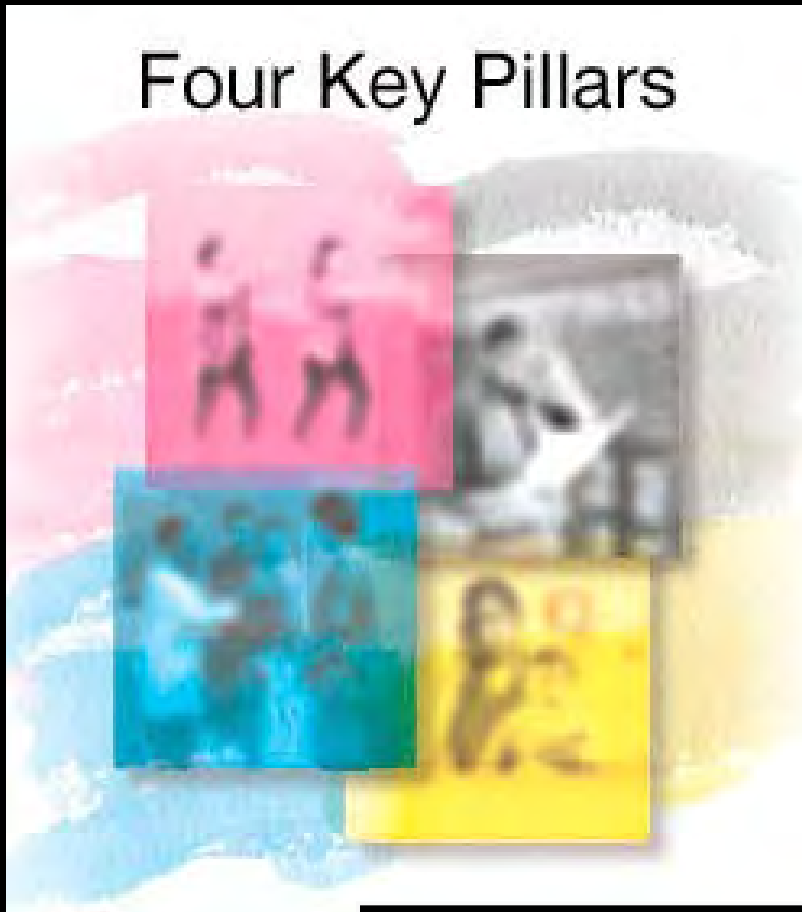
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## Four Key Pillars



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**PHC transition period: 2000 - 2006**

# Integrative Health & Healing:

co-learning our way to  
expanding wholeness  
through restoration of  
relationships with the land

*[funded: Oct. 2003 – Oct. 2006]*



health research

IAPH



It is also about healthy  
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PHC transition period: 2000 - 2006

# Integrative Health & Healing:

- creative relationship
- creative choice
- two-eyed seeing

*[funded: Oct. 2003 – Oct. 2006]*

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PHC transition period: 2000 - 2006

health research

IAPH



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# Toqwa'tu'kl Kjjitaqnn Integrative Science

Indigenous

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Western

“bringing our knowledges together”

# collaborative initiatives

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UNAMA'KI  
INSTITUTE OF  
NATURAL  
RESOURCES



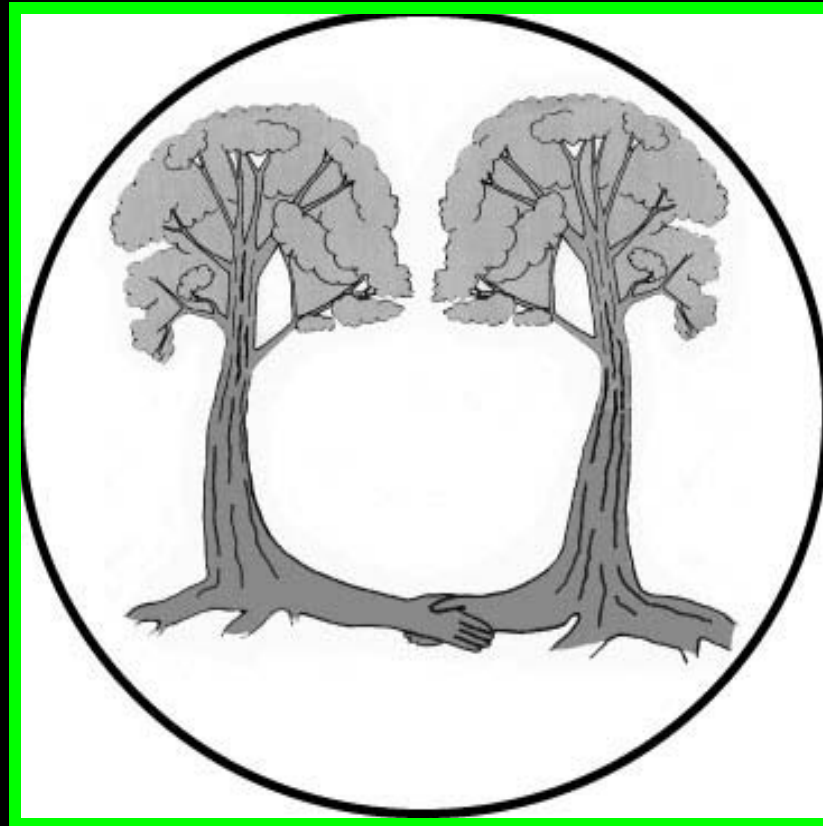
Mi'kmaq  
Elders



# Co-Learning

**Go into a forest, you see the birch, maple, pine.  
Look underground and all those trees are  
holding hands. We as people must do the same.**

(late Mi'kmaq Chief, Spiritual Elder, and Healer Charlie Labrador)



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# 11 LESSONS LEARNED:

## We need to learn to ...

- acknowledge we need each other
- acknowledge we are on a learning journey
- learn to “co-learn”:
  - simple **integrative framework**
- help institutions to help us “legitimize” TK in the minds of youth (and many others)
- work with “living agendas”
- use other “organic language”
- do ... in a creative “grow forward” manner

# 11 LESSONS LEARNED: (cont'd)

## We need to learn to ...

- think “knowledge gardening” more than knowledge translation or knowledge transfer
- weave back and forth between our knowledges, our world views, our stories
- navigate our weaving via awareness of “big patterns” (knowledge orientations or maps)
- make our knowledges, i.e. our stories, visual



# “two-eyed seeing”

Indigenous



Western



**Mr. Albert Marshall, Mi'kmaq Elder  
Eskasoni First Nation**

# integrative framework



## **both Indigenous and Western, plus:**

- role of me and you in “the knowing”
  - e.g. patterns: recognition & transformation
- our common ground
- our differences (and respect them)
- our journey ... forward & together

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AVOID ... simply Western plus  
bits and pieces of Indigenous

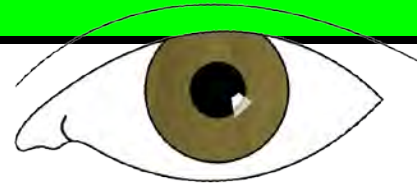


# **“two-eyed seeing”**

## **our key concepts & actions**



- **respect**
- **relationship**
- **reverence**
- **reciprocity**
- **ritual**
- **repetition**
- **responsibility**



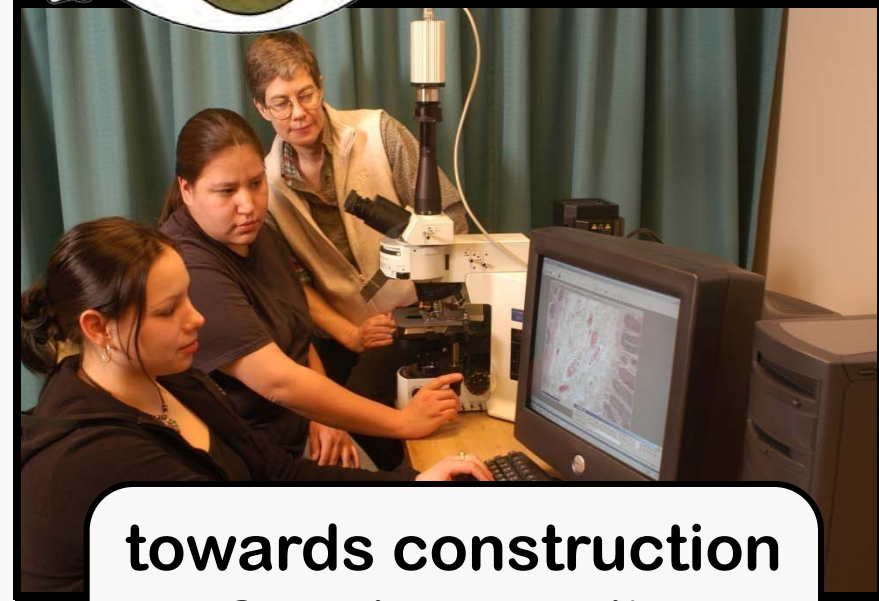
- **hypothesis**  
(making & testing)
- **data collection**
- **data analysis**
- **model & theory  
construction**

# **“two-eyed seeing”**

**our overall knowledge objectives**

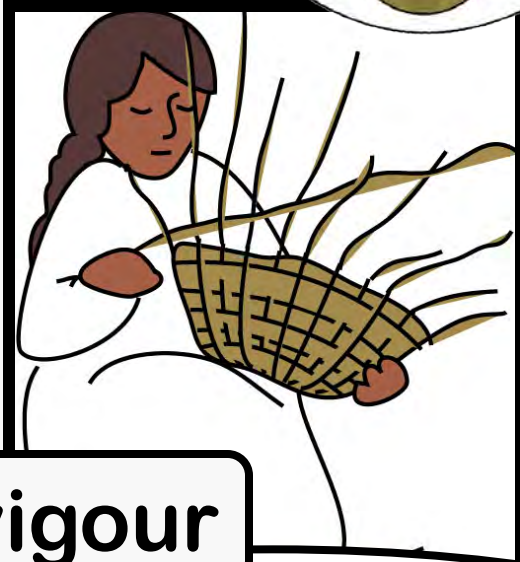


**towards resonance  
of understanding  
within environment**



**towards construction  
of understanding  
of environment**

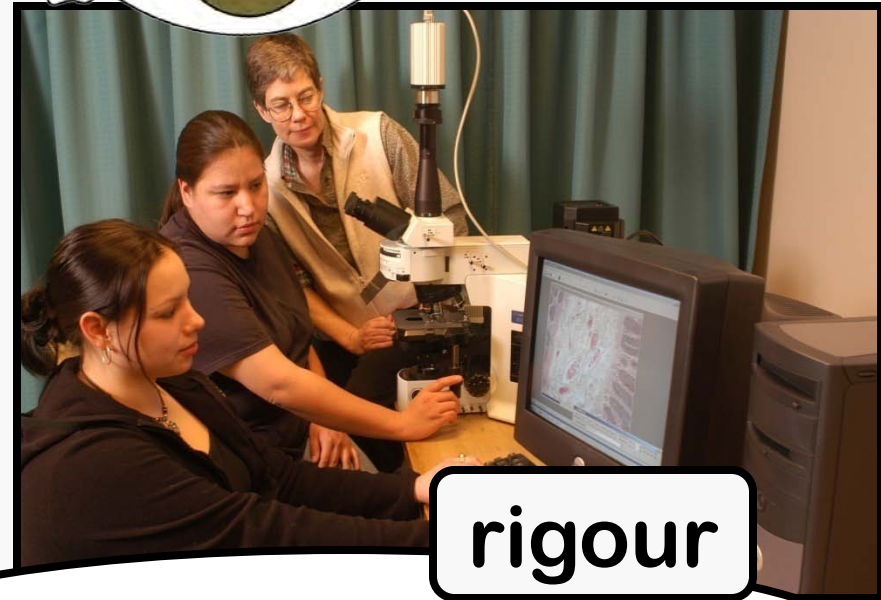
**“two-eyed seeing”**  
our language & methodology



**vigour**

**WEAVING**

**creative relationship**

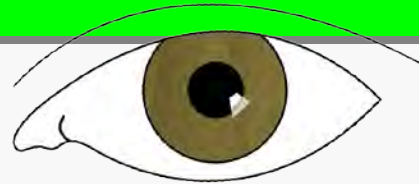
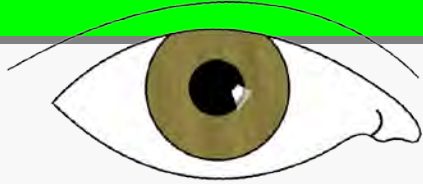


**rigour**

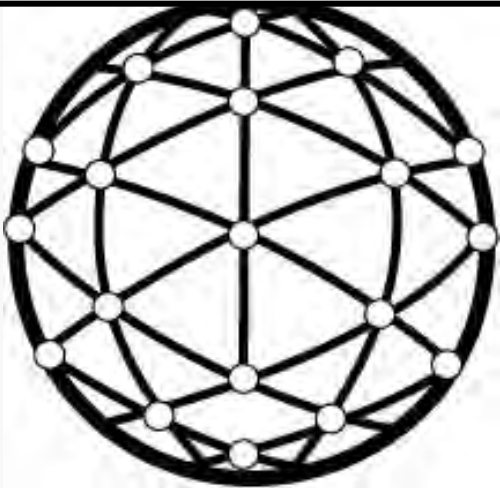
**UN-WEAVING**

**analytic logic**

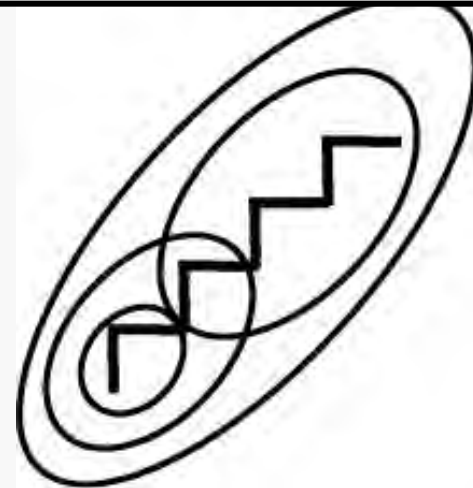
**“two-eyed seeing”  
how our world is**



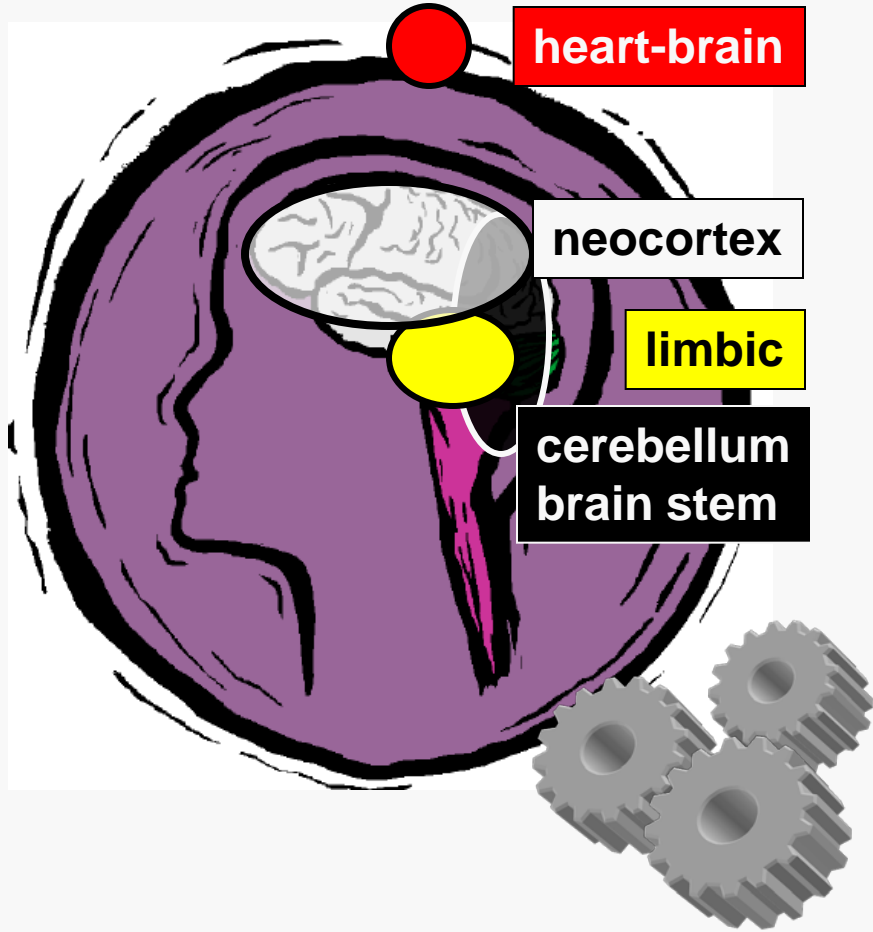
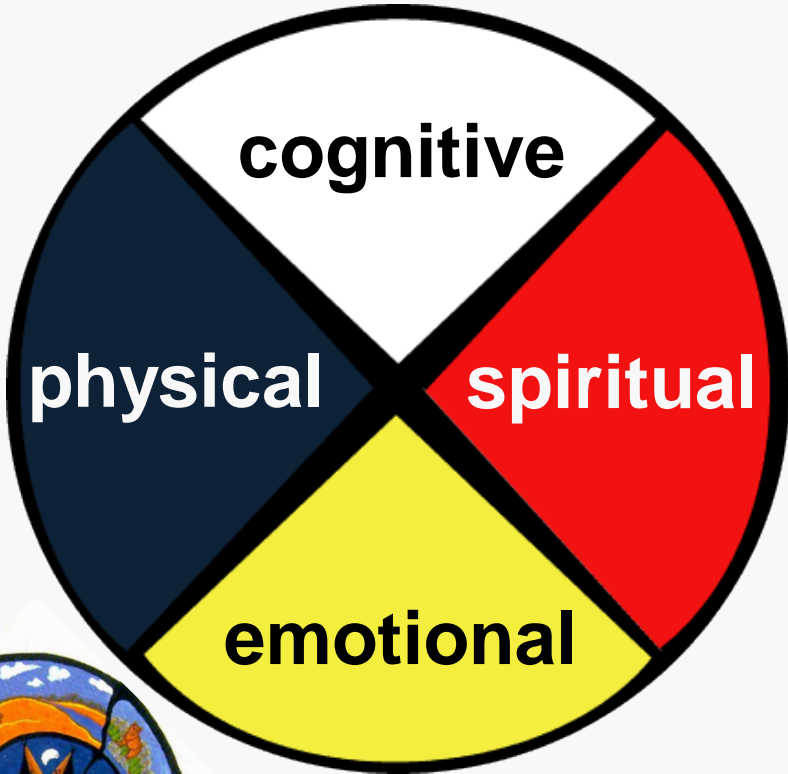
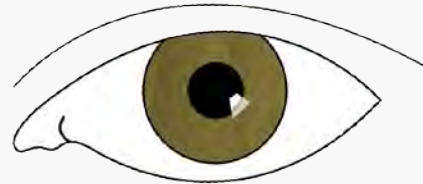
**interconnected**



**parts & wholes**

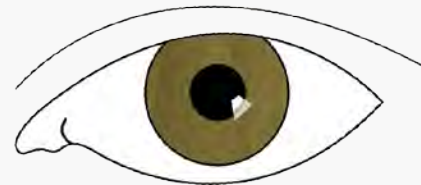


# Human



Artist: Rod Restoule  
from: Into the Daylight;  
C. Morrisseau, 1998

# Family



from:  
Mi'kmaq Family  
& Children's  
Services

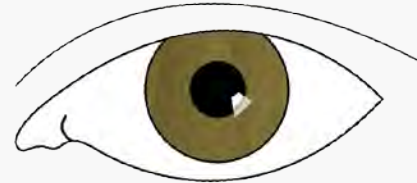


from:  
The Society of  
Obstetricians and  
Gynaecologists of Canada

# Earth



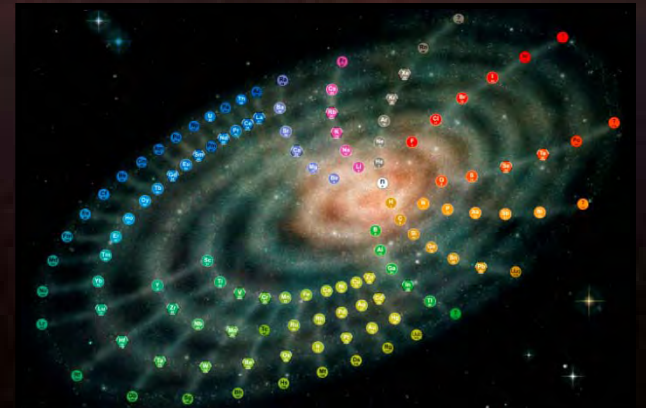
Artist Basma Kavanagh



Location: W060 11, N46 09      SYDNEY, NS  
Rise and Set for the Sun for 2004      Astronomical Applications Dept.  
Zone: 4h West of Greenwich      U. S. Naval Observatory  
Washington, DC 20392-5420

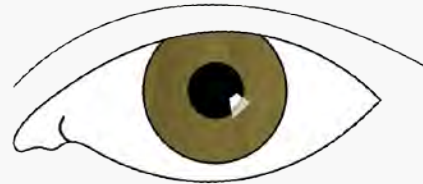
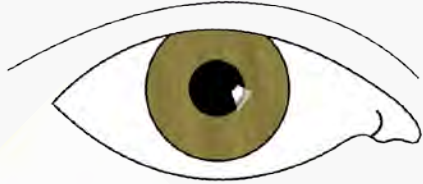
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# Sun

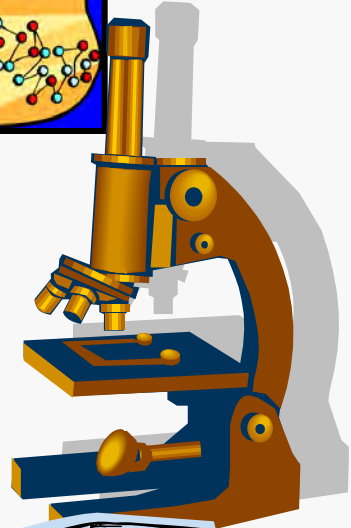
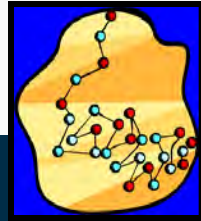


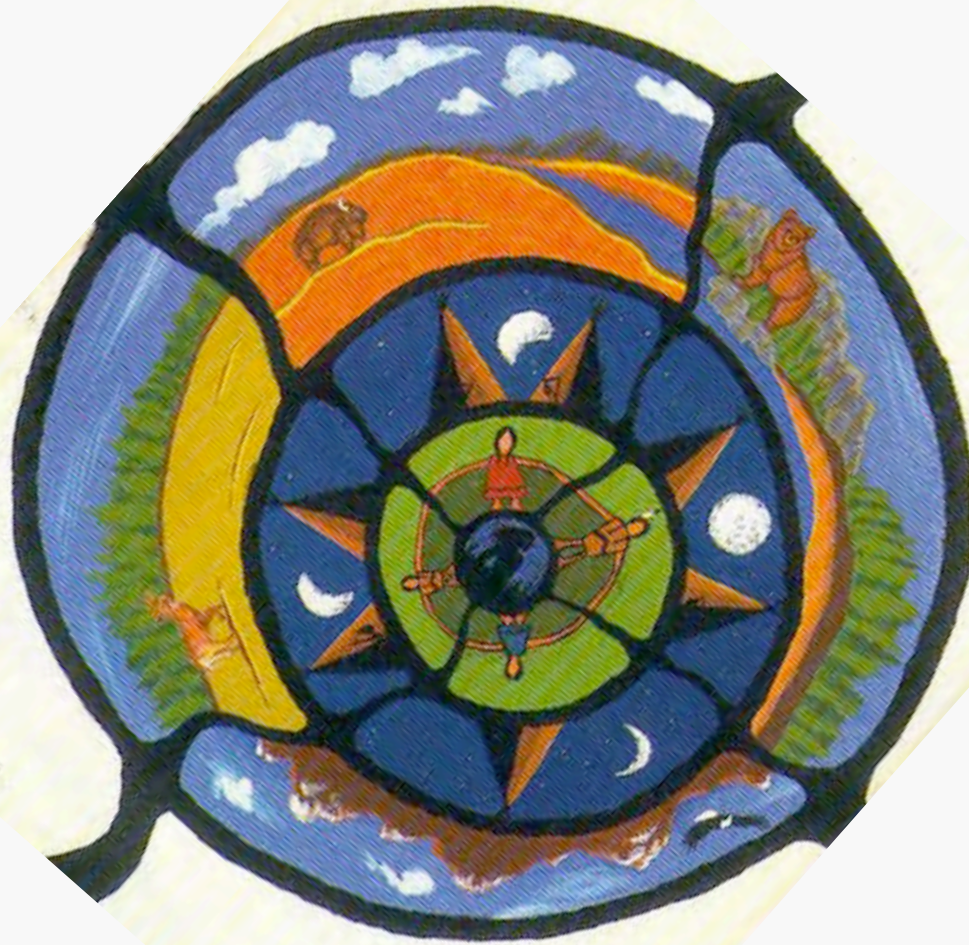


# Health



Artist: Rod Restoule  
from: Into the Daylight;  
C. Morrisseau, 1998





**We need to  
stay connected  
to the earth ...  
... and be able  
to work  
with Nature ...  
... not be a  
“master over”.**

**Artist: Rod Restoule  
from: Into the Daylight;  
C. Morrissette, 1998**



**We are  
all inter-  
connected.**

*from:* **Mi'kmaq Family  
and Children Services**



**Grandfather Sun**

**All our  
relations.**



*from:* National Aboriginal  
Policy Research Conference,  
Ottawa, March 2006

The voices of our cultures are in the land.



**Life  
Language  
Land**

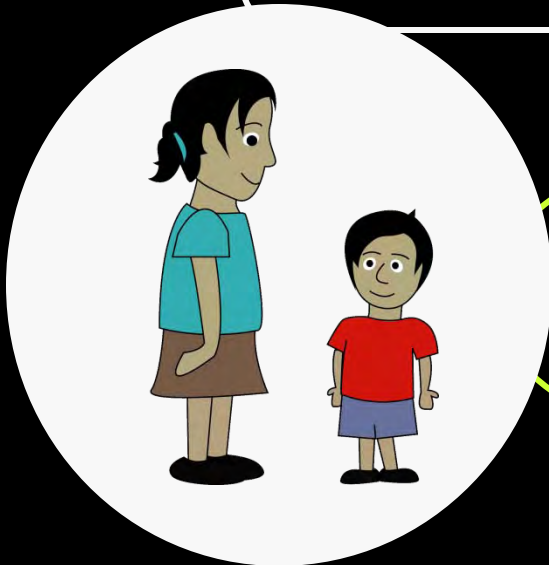


# Co-learning our way to expanding wholeness through restoration of relationships with the land



**Integrative  
Health & Healing**

**IAPH**



**... focus  
on youth**

**health research**

# Co-learning our way to expanding wholeness through restoration of relationships with the land



1. Key phrases & words

2. Biodiversity literacy



4. Mi'kmaq biocultural expression

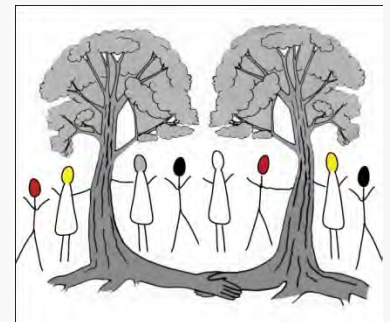


5. Spiritual connectedness with the land

3. Ecosystem health literacy



6. Integration of co-learnings into health care delivery systems



7. Extension of co-learnings into sustainable ventures

**7 themes for action projects**



healthy children need stories & creativity ...



... and to learn relationships



puppets to explore stories and creativity ...




... and to learn relationships

# puppets made from the Earth

TOQWA'TU'KL KIJJITAQNN  
Integrative Science

*Nipuktuk Wejiaql A'tukuaqnn*  
FROM THE FOREST COMES OUR STORY



**Apl'kmuj**  
*Lepus americanus*  
SNOWSHOE HARE

**Kaqajulman**  
*Clintonia borealis*  
BLUE BEAD LILY

**Pukusp**  
DECAYING WOOD

**Kawatk**  
*Picea sp.*  
SPRUCE CONE

**Stoqn**  
*Abies balsamea*  
DWARF FIR


**Wso'qmanaqsil**  
*Cornus canadensis*  
BOWENBERRY

**Qqnn**  
TWIGS

**Kuow**  
*Pinus strobus*  
PINE NEEDLES

A small multicultural group of young people worked at the University College of Cape Breton during the summer of 2004 to make puppets for the characters in two Mi'kmaq legends: *Haw Rabitq Coo Ho Long Ears* and *Haw Bollyq Waa Conqwered*. All puppets were made from natural materials easily collected in the forests of Mi'kma'ki - Cape Breton. The puppets are part of a larger research effort to help preserve and revitalize Mi'kmaq and modern scientific understanding of our forests and ecosystems without commercial resources, especially as the traditional Mi'kmaq are no longer present in the area. It is our hope that all Mi'kmaq, non-Mi'kmaq, and non-Mi'kmaq alike will appreciate the beauty of our forests and the importance of their preservation and restoration. This larger project is headed by the Canadian Institute of Forest Research - Institute of Forest Genetics (CIFR/IGF).

For Mi'kmaq language information contact: **Matthew Marshall** | 902-779-2200  
For additional information contact: **Integrative Science Program** | University College of Cape Breton • PO Box 17000 • Sydney • Nova Scotia • B1P 6L2 | Or visit our website: [www.uccb.ns.ca](http://www.uccb.ns.ca)



TOQWA'TU'KL KIJJITAQNN  
Integrative Science

*Nipuktuk Wejiaql A'tukuaqnn*  
FROM THE FOREST COMES OUR STORY



**T'i'tikli**  
*Bubo virginianus*  
GREAT HORNED OWL

**Jikoqs**  
*Fomes fomentarius*  
BRACKET FUNGUS

**Kuow**  
*Pinus strobus*  
PINE NEEDLES

**Maskwi**  
*Betula papyrifera*  
BIRch BARK

**Wisqasaw**  
*Pinus strobus*  
PINE CONE

**Pukuspil**  
*Dicranum sp.*  
Moss

**Qqnn**  
TWIGS

**Ulnetkul**  
Moss

**Jikoqs** – BRACKET FUNGUS: This hard, woody, slow growing bracket fungus once had a very special role to play in the life of the Mi'kmaq Nation. Jikoqs, Keeper of the Sacred Flame, was used to ensure that embers of the fire remained alive when the people moved to a new camp. The fungus was set on fire and then placed in a clamshell for protection. Jikoqs would burn slowly and thus keep the fire alive. At the new campsite, Jikoqs would be used to start a new campfire – this was in the time before we had modern matches. Similarly, to ensure that the fire could be restarted every morning at the same campsite, Jikoqs and a clamshell were used to safeguard an ember each night. The species of fungus used was possibly *Fomes fomentarius*, which is known in English as *tinder many tiny holes* (tinder polypore).



A small multicultural group of young people worked at the University College of Cape Breton during the summer of 2004 to make puppets for the characters in two Mi'kmaq legends: *Haw Rabitq Coo Ho Long Ears* and *Haw Bollyq Waa Conqwered*. All puppets were made from natural materials easily collected



**puppets for  
animals living  
in Mi'kma'ki**

**MI'KMA'KI**

**Native Council of Nova Scotia  
Mi'kmaq Language Program  
Artist: Michael J. Martin**

# ***How Bullfrog was Conquered***

How Bullfrog  
Learns His Lesson

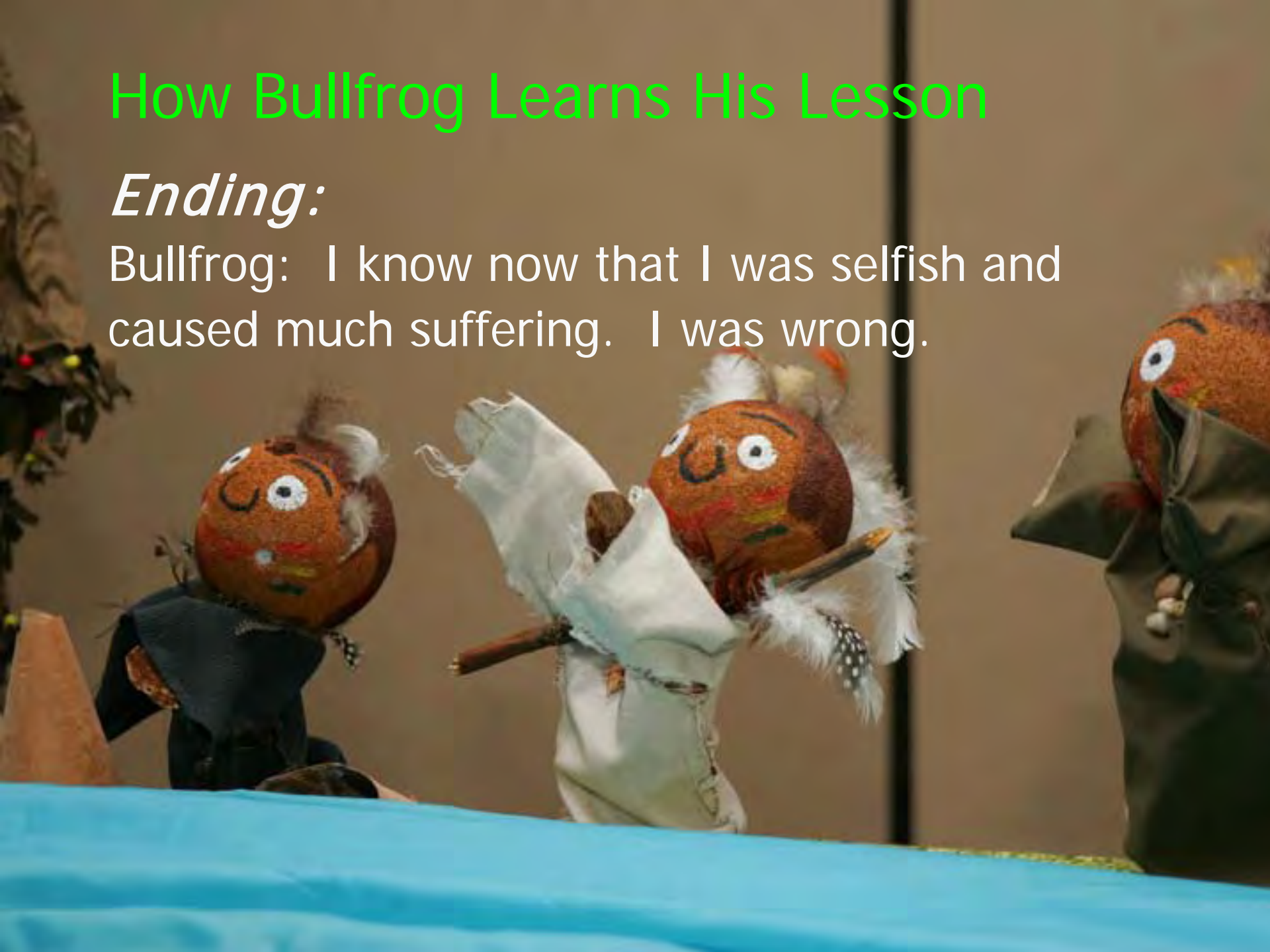
puppets for  
Mi'kmaq legends



# How Bullfrog Learns His Lesson

## *Ending:*

Bullfrog: I know now that I was selfish and caused much suffering. I was wrong.



## The Elders say:

- There's everything in the language that you want to know about yourself.
- *There's something called the healing tense.*

# THE HEALING TENSE ... an example

Mi'kmaq

English

Ketkiayop

I was drunk

Keskiayasa*nek*

I was drunk

# The Healing Tense Heals

*"[Bullfrog] has taken his misdeeds and placed them in front of him and walked around them, and said yes, I was there."*

Mrs. Murdena Marshall, Mi'kmaq Elder, Eskasoni  
... in conversation with Dr. Ivar Mendez, Director,  
Brain Repair Centre, Dalhousie University



# We Heal Together

*"... when he goes into this healing tense,  
then my attitude has to change ...  
everybody in the household ...  
everybody ... has to abide with him."*

Mrs. Murdena Marshall, Mi'kmaq Elder, Eskasoni  
... in conversation with Dr. Ivar Mendez, Director,  
Brain Repair Centre, Dalhousie University

# puppets & Mi'kmaq Seven Sacred Gifts of Life



Love



Honesty



Humility



Respect



Truth



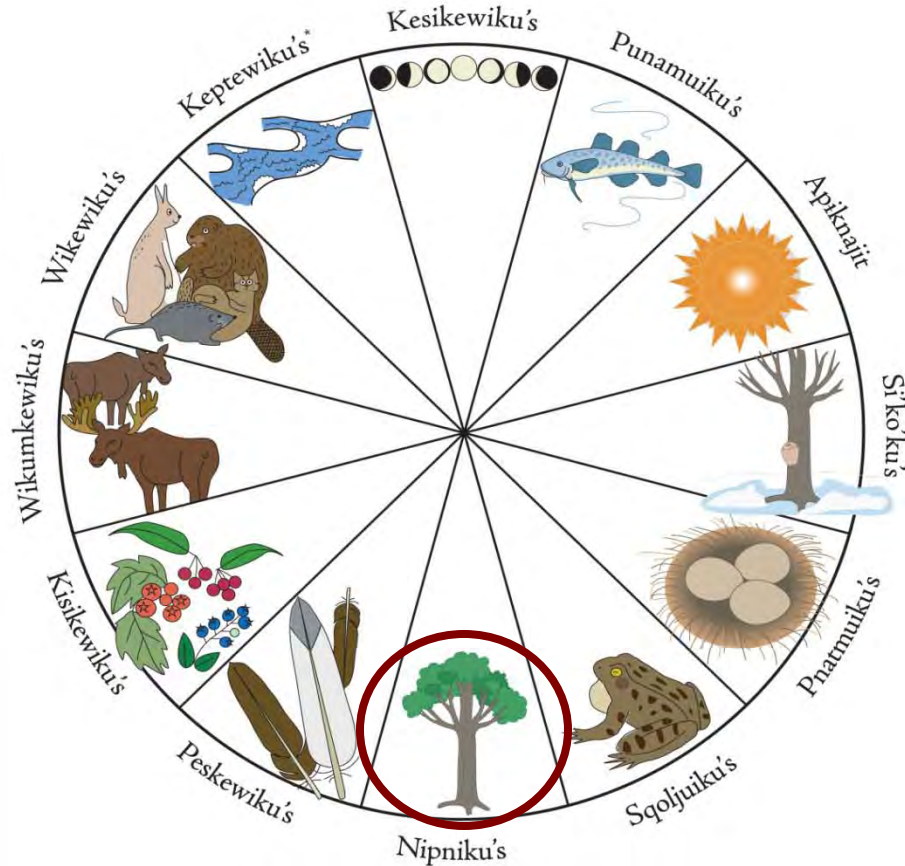
Patience



Wisdom



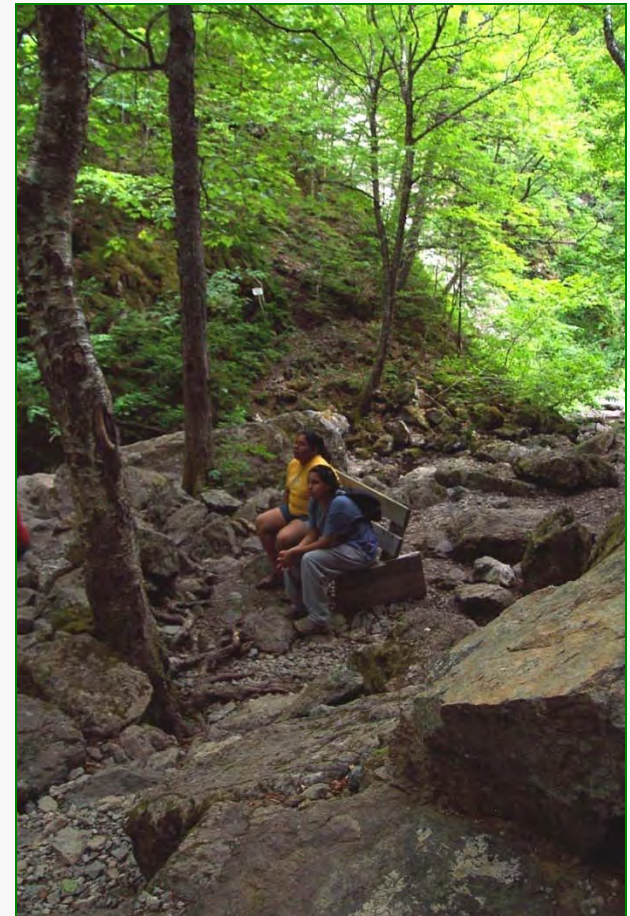
# Mi'kmawe'k Tepknusetk



\*Alternative - Kepti'kewiku's

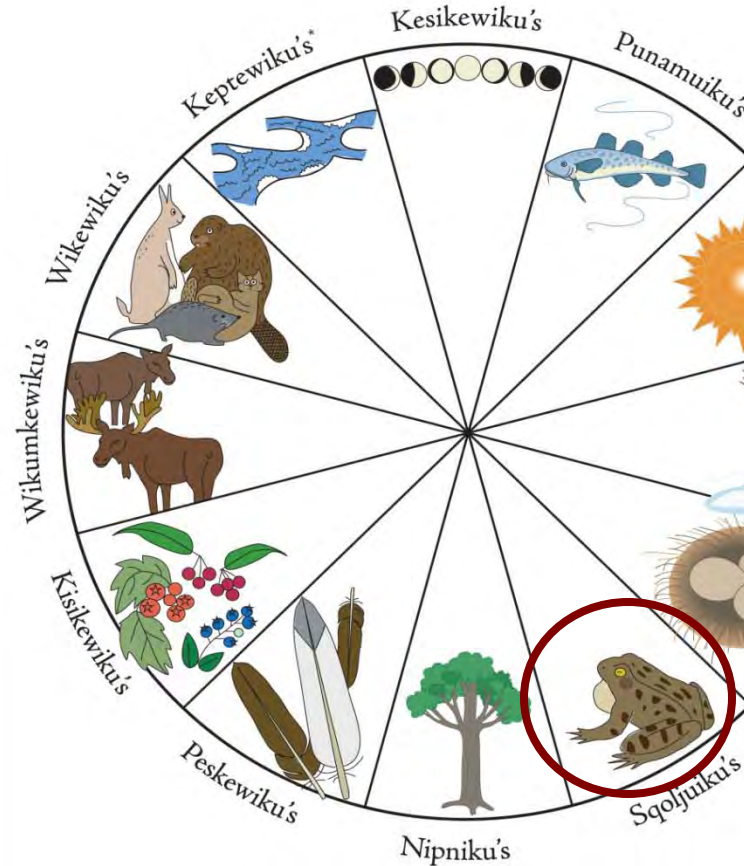


## Earth speaks: forest time





# Mi'kmawe'k Tepknusetk



\*Alternative – Kepti'kewiku's



# Earth speaks: health indicators

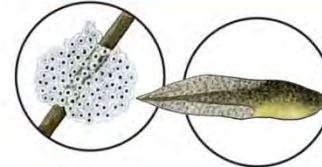
## ECOSYSTEM HEALTH CONSCIOUSNESS Difference, Pattern, Variation

TOQWA'TU'KL KJIJITAQNN • INTEGRATIVE SCIENCE

### Frogs of Unama'ki



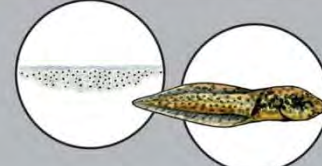
#### Mink Frog



**Mink Frog • *Rana septentrionalis***  
 Mink Frog is green with many dark markings and is 4 – 7 cm long. He gets his common name from his musky odour; he smells like a mink. Mink Frog's song sounds like pieces of wood being rapped together ... TAP TAP! While other frogs live on both land and water, Mink Frog spends most of his life in the water. He prefers permanent bodies of water like ponds and lakes. Female Mink Frog lays 2000 to 4000 eggs in a round jelly mass. This jelly mass is attached to an underwater plant stem or submerged twig. Mink Frog eats dragonflies, damselflies, water beetles, aphids, minnows, leeches, snails, millipedes, and spiders.

MINK FROG

#### Green Frog



**Green Frog • *Rana clamitans***  
 Green Frog is green with gray or brown markings on her back and legs, and has a pale belly marked with dark streaks. Male Green Frog has a bright yellow throat and is 6 – 10 cm long. Green Frog's song sounds like a loose banjo string being plucked, or like a small pebble dropped into water ... LINGKI! Green Frog prefers to be close to water, and tends to live at the edge of rivers, ponds, lakes or streams. Female Green Frog lays 1000 to 4000 eggs in a loose jelly mass that floats on the surface of the water like a raft. Green Frog eats beetles, flies, caterpillars, grasshoppers, spiders, snails, algae, waterbugs, butterflies and moths, and sometimes other small frogs.

GREEN FROG

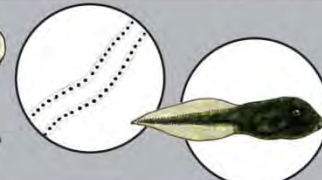
#### Pickerel Frog



**Pickerel Frog • *Rana palustris***  
 Pickerel Frog is light brown with many dark blotches on his back and legs. He is 4 – 7 cm long. Pickerel Frog's song sounds like somebody snoring, or like the sound of someone slowly pushing open a creaky door ... ARREP ARREP! Pickerel Frog lives on the shores of ponds or lakes, or on the banks of streams, often staying near permanent bodies of water at breeding time. However, he will also live in moist fields, bogs, or damp woods. Female Pickerel Frog lays her eggs in a round jelly mass attached to a plant or stick below the surface of the water. She can lay as many as 800 to 1800 eggs at a time. Pickerel Frog eats beetles, ants, spiders, caterpillars, sow bugs, mites, snails, true bugs, and many small water creatures.

PICKEREL FROG

#### Eastern American Toad



**Eastern American Toad • *Bufo americanus***  
 Toad is a plump creature with stubby toes and rough warty skin. He is usually brownish, with darker brown or black markings. Toad has a pale belly with dark spots that become more distinct at night. Toad can grow to be 5 – 11 cm long. Toad lives in many different places, for example, in the woods, near a swamp or lake, in a field, or even in your backyard! His song sounds like a long, high trilling sound ... THRRR! Female Toad prefers temporary ponds for breeding. She lays 8000 to 80000 eggs in a time in two long strings near the bottom of the pond or puddle. Toad eats many kinds of insects like caterpillars, earwigs, sow bugs, as well as slugs, earthworms, and millipedes.

AMERICAN TOAD

#### Northern Spring Peeper

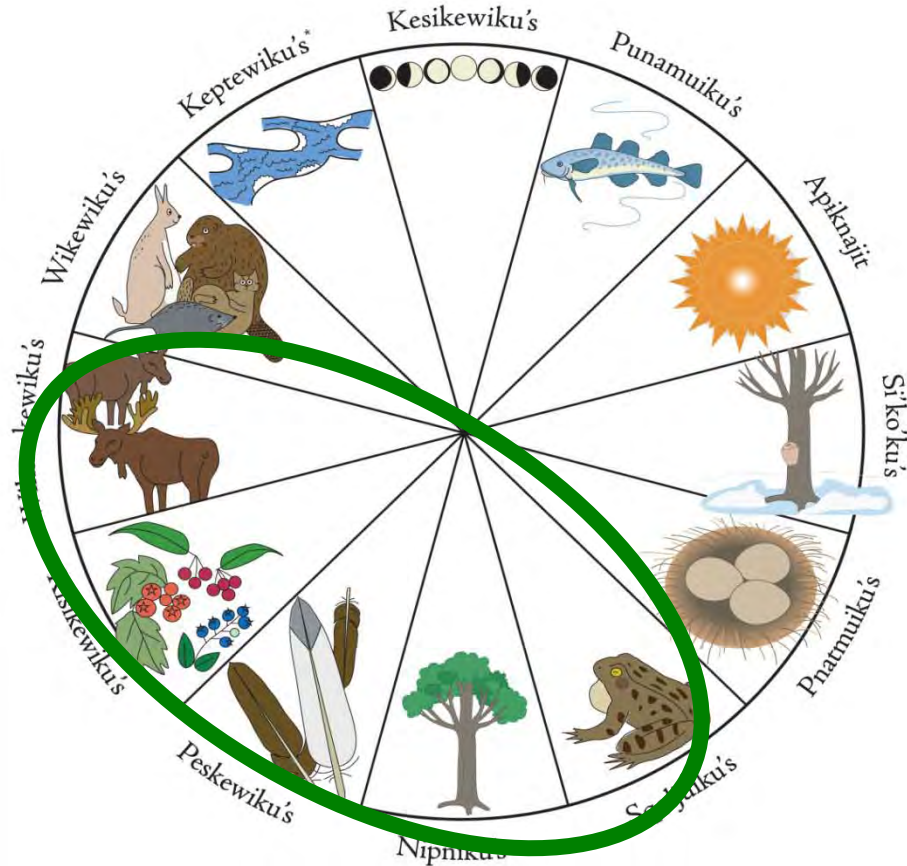


**Northern Spring Peeper • *Pseudacris crucifer***  
 Spring Peeper is our smallest frog; he grows to 2 – 4 cm long. We know that spring has arrived when we hear Spring Peeper singing at night. His song sounds like a high PEEP! Spring Peeper lives in the woods near ponds, marshes or swamps. He is our only tree frog and can change the colour of his skin to blend in with his

SPRING



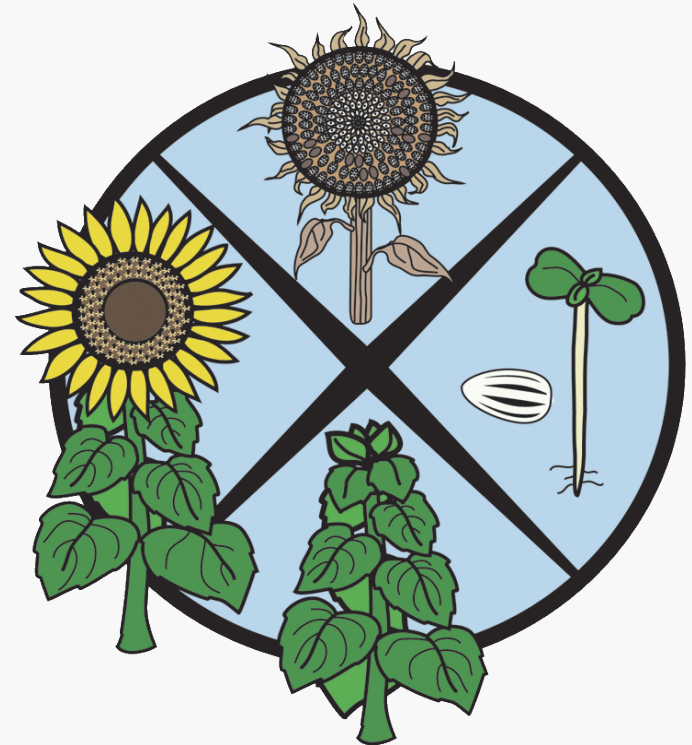
# Mi'kmawe'k Tepknusetk



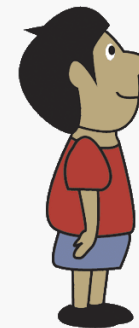
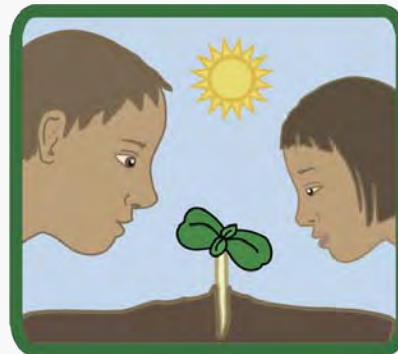
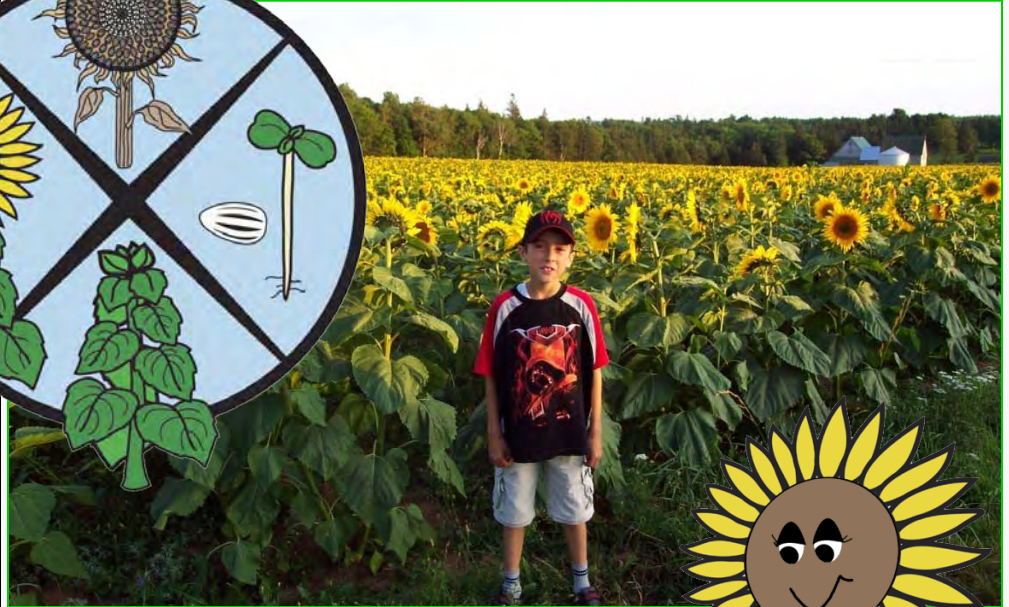
\*Alternative - Keptewiku's



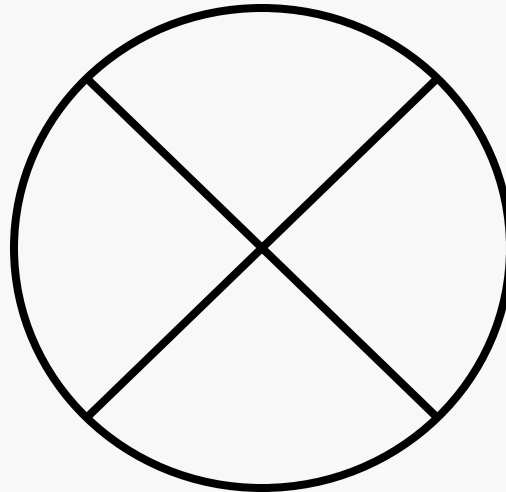
## Earth speaks: wholistic health lessons



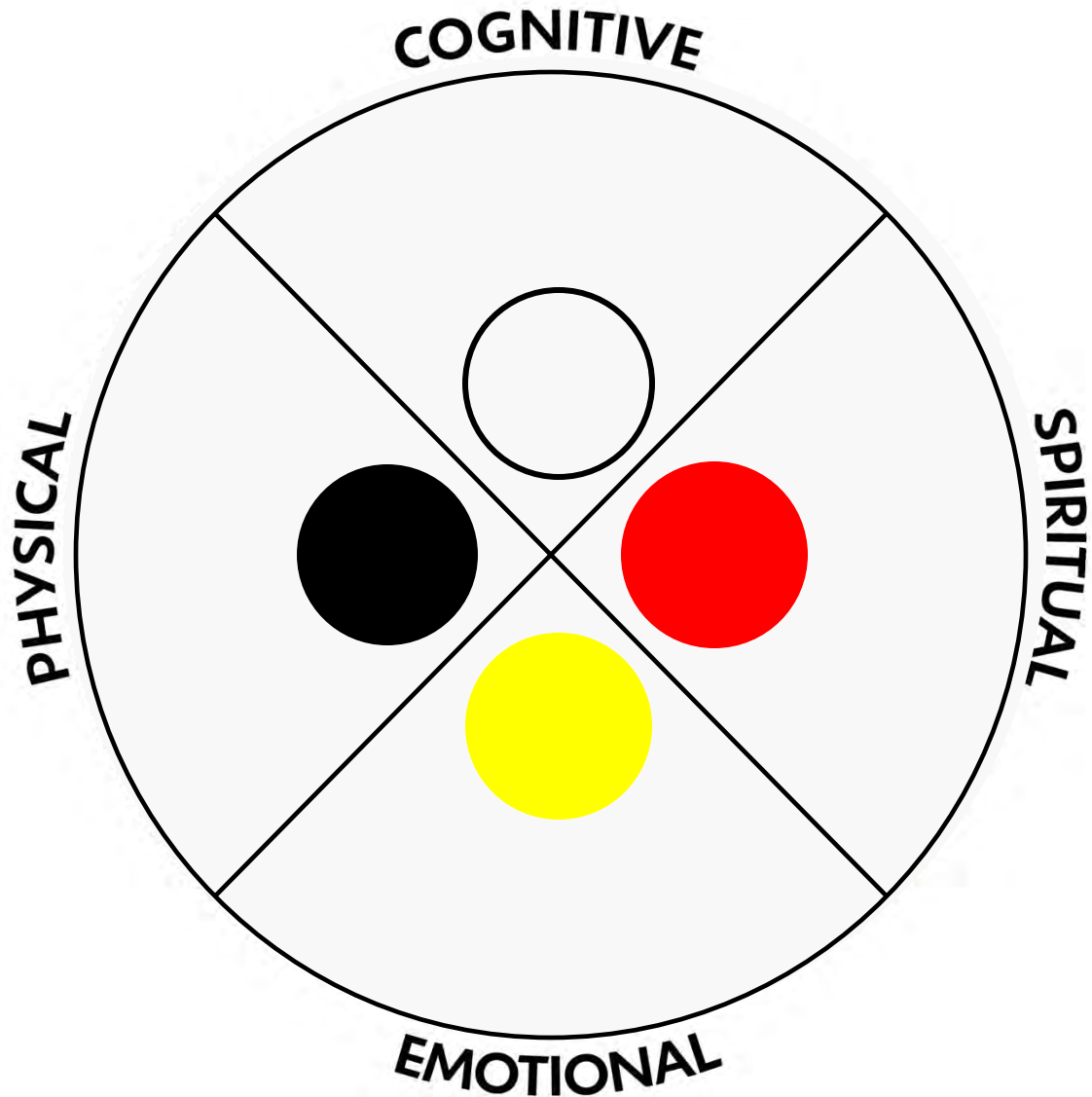
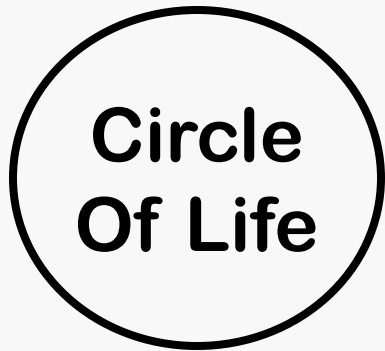
# healthy young ... need TLC



# Medicine Wheel: lived relationships

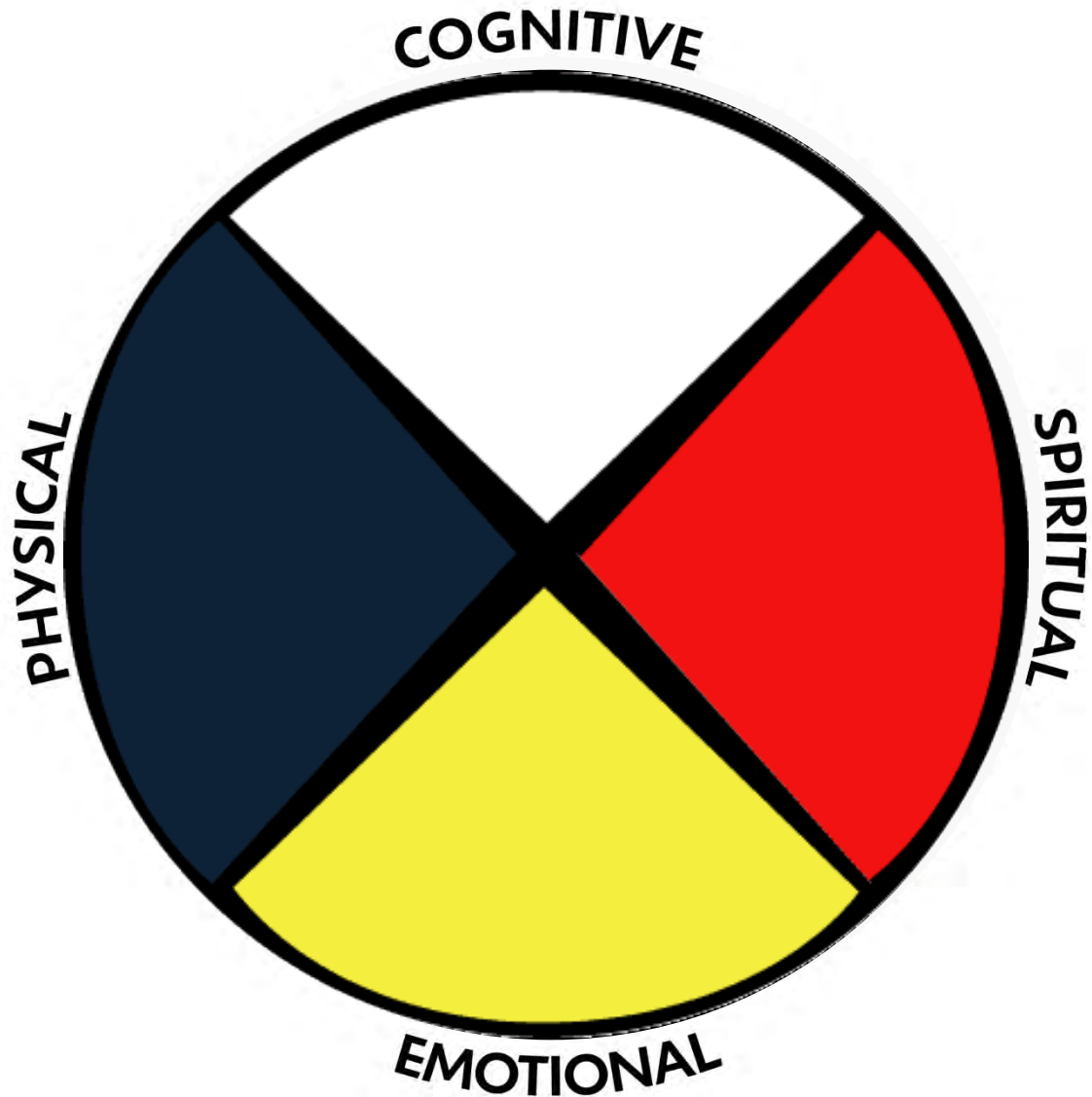
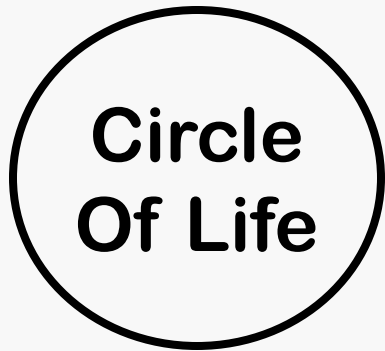


# Medicine Wheel: lived relationships

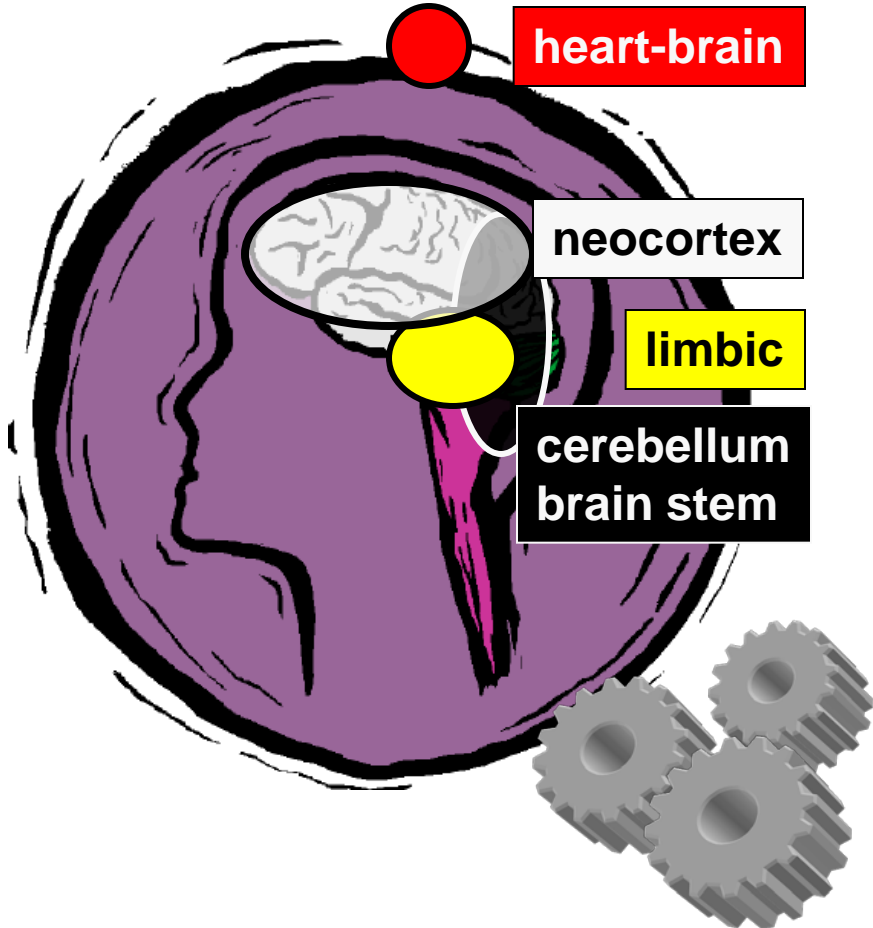
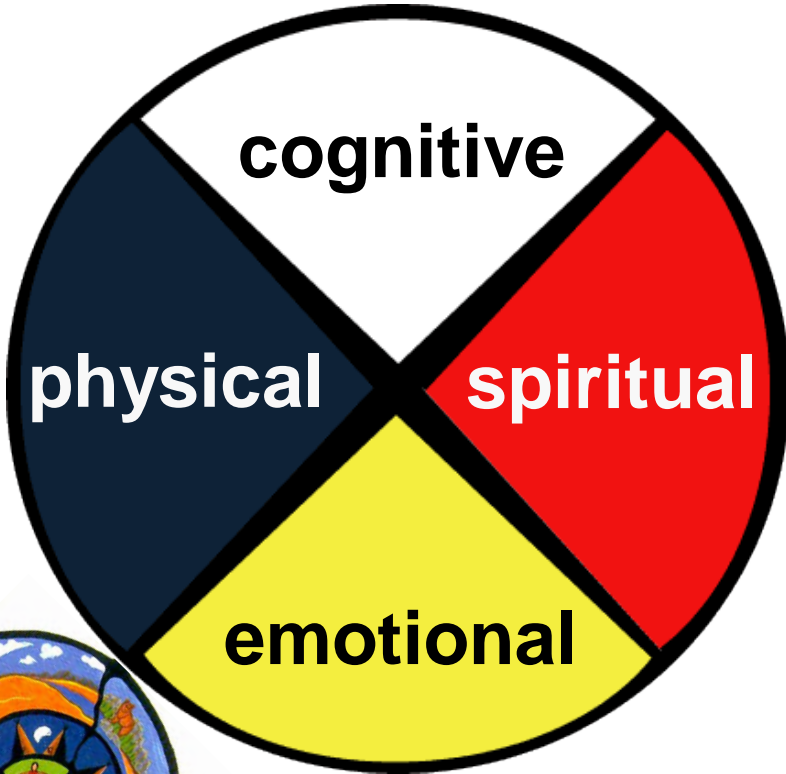
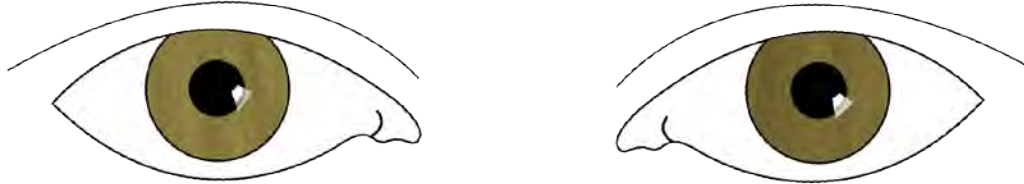




# Medicine Wheel: lived relationships

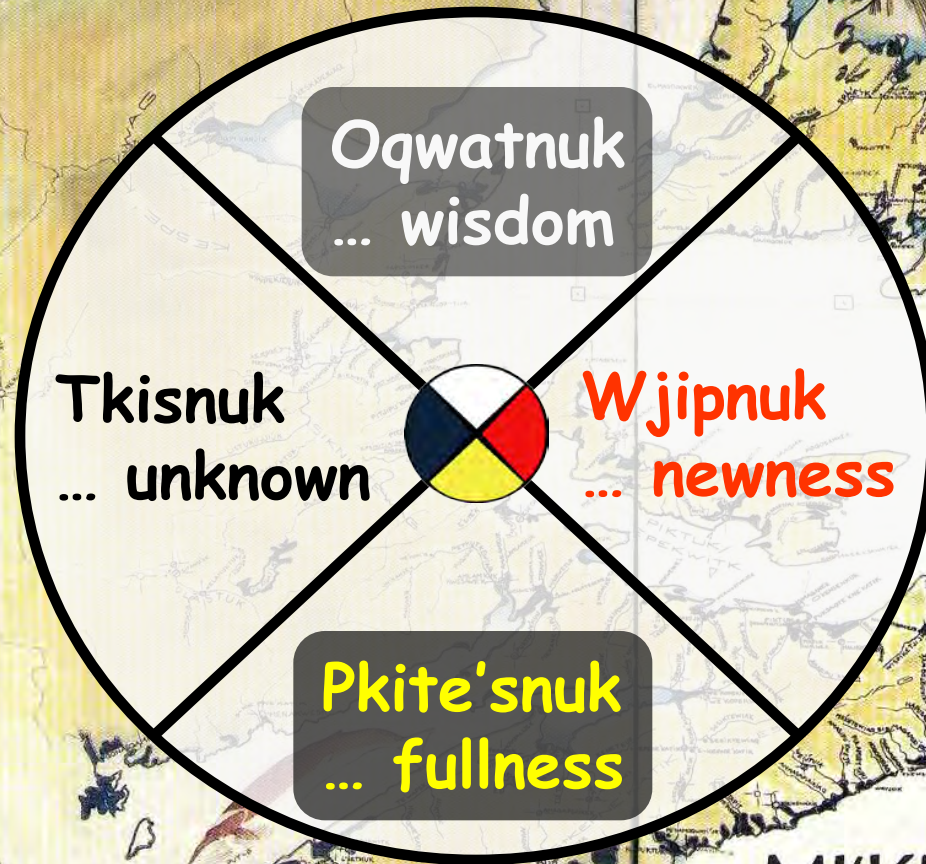


# Human



Artist: Rod Restoule  
from: Into the Daylight;  
C. Morrisseau, 1998

# Medicine Wheel: lived relationships



Circle  
Of Life

MI'KMA'KI

# expanding wholeness

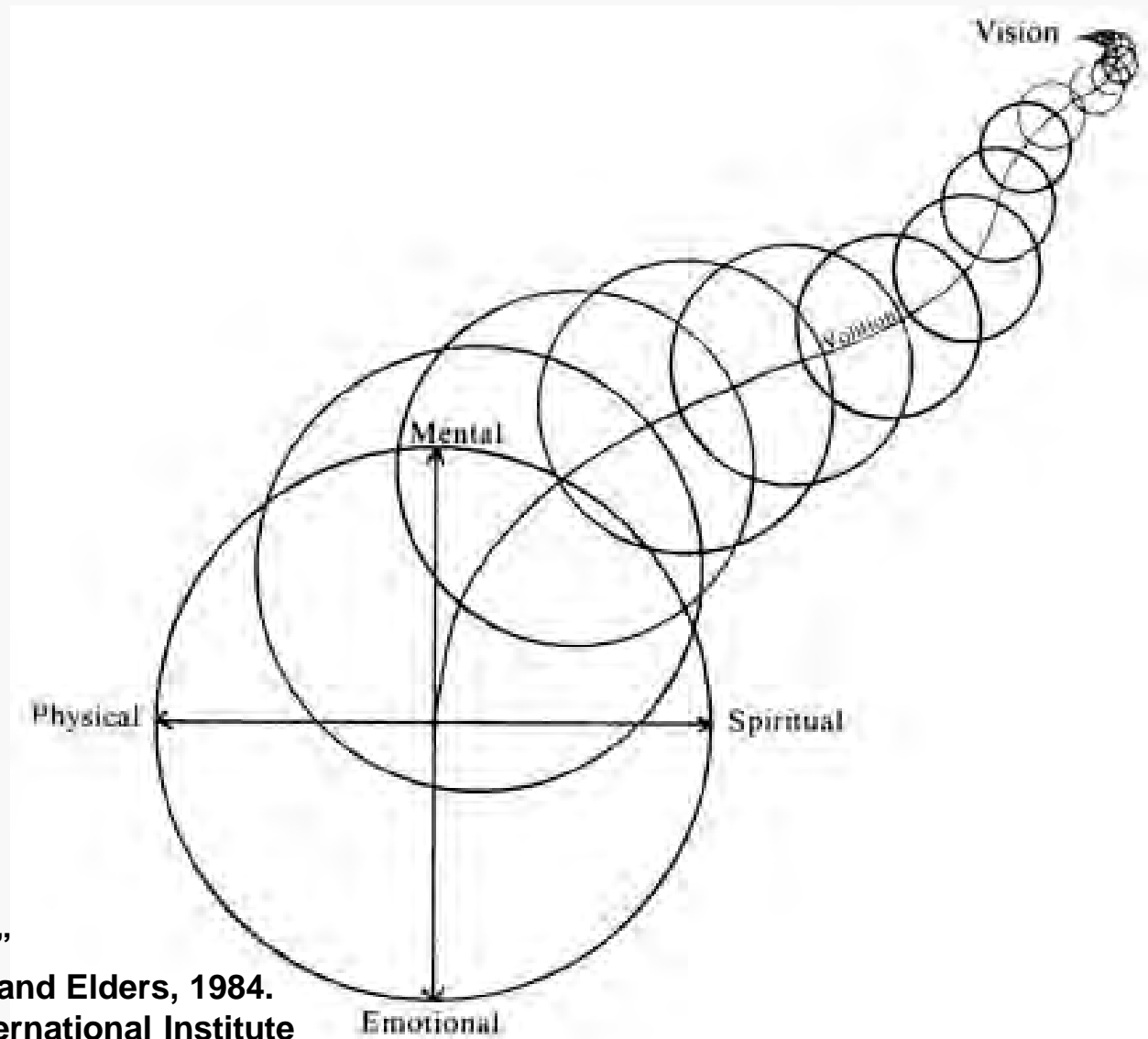
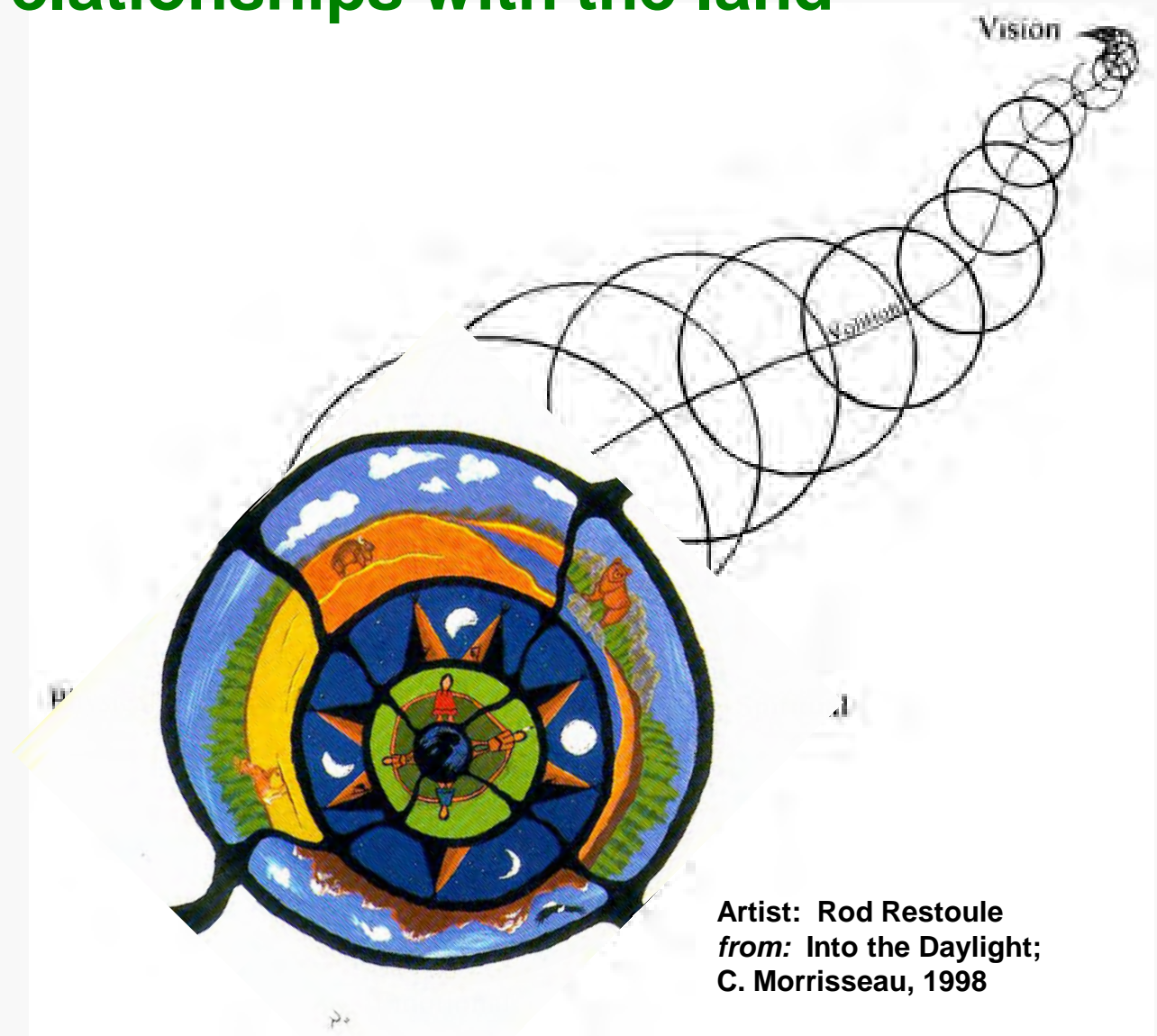


image from: "The Sacred Tree"  
by: Lane, Bopp, Bopp, Brown and Elders, 1984.  
published by: Four Worlds International Institute

# expanding wholeness through restoration of relationships with the land



Artist: Rod Restoule  
from: Into the Daylight;  
C. Morrisseau, 1998

# Wjipenuk Etek Lnuimlkikno'ti

## Spirit of the East



Artist Basma Kavanagh

**creative choice**

East (sunrise)

... a place of  
beginnings and  
enlightenment

... where new  
knowledge can be  
created or received  
to bring about  
harmony or right  
relations.

# Integrative Health & Healing:

- creative relationship
- creative choice
- two-eyed seeing

IAPH



CAPE BRETON  
UNIVERSITY



Artist Basma Kavanagh

It is also about healthy communities and a healthy environment, and understanding that many factors outside of the health system influence an individual's wellbeing.

National Primary Health Care Strategy

## Pillar #4: Healthy Living

CAPE BRETON UNIVERSITY

Canada Foundation for Innovation / Fondation canadienne pour l'innovation



CIHR IRSC / Canadian Institutes of Health Research / Instituts de recherche en santé du Canada

IWK Health Centre Foundation

IAPH

NOVA SCOTIA Health Research FOUNDATION

THANK YOU

UNAMA'KI INSTITUTE OF NATURAL RESOURCES



Mi'kmaq Elders

NSERC CRSNG

National Primary Health Care Strategy

Pillar #4: Healthy Living

Mi'kmawey Debert



Royal Canadian Mounted Police

Gendarmerie royale du Canada