In 2003, the Institute of Aboriginal Peoples’ Health (IAPH) within CIHR awarded a research grant to Cheryl Bartlett for a project entitled “Integrative Health and Healing: co-learning our way to expanding wholeness through restoration of relationships with the land”. Mi’kmaw Elders in this project worked with researchers to envision outreach activities that could pilot the Elders’ belief that children need experiential learning with and in the natural world. Elders felt that such helps stimulate a child’s senses of creativity and interconnectiveness and this, in turn, would then help to encourage the child understand that healthy, creative life options are there to recognize, choose, and follow once they get older.

One of the major activities we decided upon was the “sunflower project” - a hands-on activity to help inspire imagination, cultural awareness, community relationships, and positive personal growth. The project was brought to life largely through the work of artist Basma Kavanagh and graphic designer Kristy Read who created a colourful and visual booklet for children that could guide them in the planting of sunflower seeds and encourage them to provide TLC (tender loving care) after the seeds germinated and while the young plants grew.

The booklet also encouraged children to make observations and drawings of the sunflowers through the spring, summer and fall seasons and to involve family, teachers, RCMP officers, and other community members in their project. Our hope was that the children, i.e. the sunflowers’ care givers, would learn to see some of the relationships that the plants form within the larger web of life ... and more: that the sunflower care givers would also come to see the young plants’ relationships as similar to the caring relationships that they, the children, have and can draw upon within their own home community. Mi’kmaw Elder Murdena Marshall provided Mi’kmaw translations for the booklet’s numerous illustrations and Youth Outreach Worker Andrew Sark distributed the book to a few thousand children in elementary schools in Cape Breton and elsewhere during 2005 and 2006.
The booklet can be viewed in the pages that follow. It is important to note, however, that we provide two versions. The first is in the correct page order. The second, with better quality images, is in the page order appropriate for double-sided printing.

Andrew spoke about the sunflower project and his other youth outreach activities at the 2006 "Healing Our Spirits Worldwide" conference held in Edmonton, AB. Look for his presentation in the articles and presentations section of our website; Andrew's is in the 2006 year category and is listed alphabetically: Sark, A.

In addition to the enabling funding from Cheryl’s CIHR research award, the sunflower project received supportive funding from the Mounted Police Foundation (MPF) in the form of a community grant to print 5000 copies of the sunflower booklet (our sincere thanks to the Eskasoni First Nation Detachment of the RCMP who supported our application). And, an additional research grant to Cheryl Bartlett from the IWK Health Centre Foundation enabled hiring a youth outreach worker.
Everything in nature is connected: the people, trees, rocks, flowers, fish, bugs and birds. We are part of that connection through our family, our community, and our spirituality. The sunflower, like you, is part of those connections. The field where the sunflower grows is like the home where you grow. Use this Booklet to record all the happy memories you will have learning, growing and sharing with your sunflowers.

Toqikutimk
LET'S GROW TOGETHER

I am a seed that's starting to grow.
I am a seed that's starting to grow.
I am growing, I am safe.
The Earth is healthy and I will be great.
It's time to greet my Mother.
Now I will sprout and greet my Grandfather.
I am very small and need my family.
I am fragile and need my shelter.
My family gives me food and hugs so I grow.
Mother Earth and Grandfather Sun will help me grow.
I grow strong, following my family's lessons.
I grow strong following Grandfather across the sky.
Now I am learning so I can help others.
Now I grow seeds so there will be others.
Now I share so others can know.
Now I provide shelter so my young seeds can grow.
It takes the whole family for young ones to grow; in addition to food and water, we need light and love in our home.
**Ika'taqute'n Skinmin**
[planting my seeds]

- mkne'n ta'n tet na'ku'setewik
- jila'te'n maqamikew
- ikàtaqawte'n skinmin
- anqute'mn
- wtaqapatu
- jikapte'n sqalian

**Maliapte'n Ta'n Kis Ika'tu'nl**
[caring for my sunflower]

- wula ketusamqwakd
- wula welikwek mita meski'k wtupn
Sunflower Visitors in Different Seasons:

- In early summer, caterpillars visit the juicy leaves of the young sunflower.
- When the sunflower blooms, honey bees, bumble bees and wild bees will visit to gather nectar.
- Sometimes butterflies and beetles will visit.
- Leaf-hoppers and other insects often spend time on the underside of the leaf, drinking the juices of the plant.
- In autumn, as the seeds ripen, many birds will visit the sunflower: goldfinches, chickadees and blue jays love to eat the nutritious seeds.
- Squirrels like sunflower seeds too ... and if they can’t reach the flowers, they will pick up seeds that the birds drop on the ground.
**Ntasueml Aq Wtanim**
[my sunflower and my community]
draw inside your sunflowers

- **Nuji**
  - Kina'mua'tijik
    - [school teachers]

- **Nitapk**
  - [friends]

- **Ta'nik**
  - Ajipjutu'tij
    - [RCMP Officers]
  - Nusaptmi'tij
  - Mawi Kisitaqn
    - [natural resource guardians]

- **Jiksu'k**
  - [family]

- **Toqi Kejik**
  - [neighbours]

- **Nuji Npitaqtijik**
  - [health care people]

[me]
The Medicine Wheel can help us to understand the life cycle of a sunflower.

**Ewikasik Ta'n Teli Kwek Kiwasuekn**

[my sunflower journal]

- Ta'n skinmin kis ika'tu/n?  
  When did you plant your seeds?  

- Ta'm ika taqmin elik?  
  Where did you plant your seeds?  

- Ta'skí skinmin kis ika'tu/n?  
  How many seeds did you plant?  

- Draw the different kinds of seeds:  

- Ta'n saqálikaq șiip?  
  When did you see the first sprout?  

- Me't saqáliq?  
  Did all of your seeds sprout?  

- Talí pitaqip ktsuet km ikaq nekt eńdie' wink? (Me't nkate'n.)  
  How tall was your sunflower plant after a week? (If you have many plants, you can choose one or many.)  

- Katu nevte'jit tepunuset pámie jál pitaq ktsu ekm?  
  How tall was your sunflower after one month?  

- Tapuníjí tepkueesk?  
  After two months?  

- Ne'lujík tepkueesk?  
  After three months?
**Mena’taquitmn Kskinminm**
([harvesting my sunflower seeds])

When are the seeds ready to harvest?

They are ready when all the flowers fall off and the seeds become hard and dry. At this time the flower-seed head will turn yellowish and dry out. Pull out a seed with your fingers and try it! The seeds are very tasty.

**how to harvest seeds in flower-heads:**

You can use your thumbs to loosen the seeds,

or you can rub two flower-heads together to loosen the seeds,

or you can leave them for the birds to eat!
**Mese'kw Wasuuk**
[sunflower – a large flower]

The scientific name for sunflower is *Helianthus annuus*.

There are more than 50 species of sunflowers in North America.

Native Americans have been using sunflowers for food and medicine for at least 8000 years.

Native Americans have been cultivating the sunflower for at least 4000 years, but no one is sure where cultivation of the sunflower began.

Sunflower as Medicine:
Crushed plants were applied to snakebites and spider bites, and the juice from the plants was applied to cuts.

An infusion (a tea) of flower-heads was used to relieve chest pains.

The sap was chewed by Elders to diminish thirst.

Pieces of the stem were used for wart removal.

A decoction (a boiled tea) of the root was used to soothe rheumatism.

Other Uses of Sunflower:
Seeds were used to make blue, red, and black dyes for baskets.

Petals were crushed to make yellow paint.

The bright yellow flowers were often used as decorations.

The tough stalks (stems) were sometimes used as building materials and as poles for beans to climb.

Sometimes the stalks were made into musical flutes!

Dried stalks were used as kindling for fires.

The fibres in the stalks were used to make bird snares.

Some people used the fibres in the stalks to make dolls.

**Na’ku’setl Miamuj Nemiatl Ntasuekm**
[following the sun]

- eksitpu’k (morning)
- miawtaw’kek (noon)
- walqwasiyet (evening)

Sunflowers are called “sun” flowers because their yellow flower-heads follow the sun’s path across the sky every day.

Here are some ways that First Nations peoples used sunflower seeds:

- Seeds were crushed and mixed with grease and made into breads and cakes.
- Seeds were crushed and rolled into balls for a portable, nutritious snack.
- Seeds were used to thicken soups and make gravy.
- Seed covers were roasted and made into a coffee-type drink.
- Seeds were eaten to stimulate the appetite.
- Seeds were crushed into flour and used to make porridge, gruel and mush.
- Seeds were crushed to make an oily paste, like peanut butter.
- Seeds were dried and saved as a winter food.
- Seeds were used to feed livestock.
- Seeds were a prized source of oil; the oil was used for frying foods like dumplings and artichoke tubers (the roots of a different kind of sunflower). Also, the oil was also used for making paints and for making hair shiny.
Kids Helpline  1-800-668-6868

RCMP Detachments:
Baddeck • Wagmatcook .................................. 902-295-2350
Eskasoni ...................................................... 902-379-2822
Membertou .................................................. 902-564-2885
Potlotek ...................................................... 902-535-2120
We’koqma’q .................................................. 902-756-3371

NADACA ..................................................... 902-564-6466
Crisis Intervention ........................................ 902-567-7767

Special thanks to Murdena Marshall for translations.
This project has been made possible by:

Royal Canadian Mounted Police
Gendarmerie royale du Canada
Canada Research Chairs
Cities de recherche du Canada
CAPE BRETON UNIVERSITY
Canada Research Chairs
Cities de recherche du Canada
KECCA
IWK Health Centre Foundation
CIHR
IRSC
Social Sciences and Humanities
Research Council of Canada
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This project has been made possible by:

This Booklet Belongs To:

Toqwa’tu’kl Kijjitaqnn • Integrative Science • http://msit.capebretonu.ca
Everything in nature is connected: the people, trees, rocks, flowers, fish, bugs and birds. We are part of that connection through our family, our community, and our spirituality. The sunflower, like you, is part of those connections. The field where the sunflower grows is like the home where you grow. Use this Booklet to record all the happy memories you will have learning, growing and sharing with your sunflowers.

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**Meski’k Wasuek**
[sunflower – a large flower]
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• Seeds were crushed to make an oily paste, like peanut butter.
• Seeds were dried and saved as a winter food.
• Seeds were used to feed livestock.
• Seeds were a prized source of oil: the oil was used for frying foods like dumplings and artichoke tubers (the roots of a different kind of sunflower). Also, the oil was also used for making paints and for making hair shiny.

SUNFLOWERS ARE CALLED “SUN” FLOWERS BECAUSE THEIR YELLOW FLOWER-HEADS FOLLOW THE SUN’S PATH ACROSS THE SKY EVERY DAY.

I am a seed that’s starting to grow.
I am growing, I am safe.
The Earth is healthy and I will be great.
It’s time to greet my Mother.
Now I will sprout and greet my Grandfather.
I am very small and need my family.
I am fragile and need my shelter.
My family gives me food and hugs so I grow.
Mother Earth and Grandfather Sun will help me grow.
I grow strong, following my family’s lessons.
I grow strong following Grandfather across the sky.
Now I am learning so I can help others.
Now I grow seeds so there will be others.
Now I share so others can know.
Now I provide shelter so my young seeds can grow.
It takes the whole family for young ones to grow; in addition to food and water, we need light and love in our home.
**Ika’taqute’n Skinmin**  
[planting my seeds]

- **mkne’n ta’n tet na’ku’setewik**
- **jila’te’n maqamikew**
- **ikàtaqawte’n skinmin**
- **anqute’mn**
- **wtaqapatu**
- **jikapte’n sqalian**

**Mena’taquatmn Kskinminml**  
[harvesting my sunflower seeds]

When are the seeds ready to harvest?

They are ready when all the flowers fall off and the seeds become hard and dry. At this time the flower-seed head will turn yellowish and dry out. Pull out a seed with your fingers and try it! The seeds are very tasty.

**how to harvest seeds in flower-heads:**

You can use your thumbs to loosen the seeds,

or you can rub two flower-heads together to loosen the seeds,

or you can leave them for the birds to eat!
When did your sunflower flower?

How old was your sunflower when it flowered?

What did your sunflower look like? Use the Medicine Wheel to draw your sunflower as a seed, when it sprouted, when it was in full flower, and how it looked in winter.
Sunflower Visitors in Different Seasons:
- In early summer, caterpillars visit the juicy leaves of the young sunflower.
- When the sunflower blooms, honey bees, bumble bees and wild bees will visit to gather nectar.
- Sometimes butterflies and beetles will visit.
- Leaf-hoppers and other insects often spend time on the underside of the leaf, drinking the juices of the plant.
- In autumn, as the seeds ripen, many birds will visit the sunflower: goldfinches, chickadees and blue jays love to eat the nutritious seeds.
- Squirrels like sunflower seeds too ... and if they can’t reach the flowers, they will pick up seeds that the birds drop on the ground.

Goldfinches and chickadees will visit throughout autumn and winter looking for leftover seeds.

When seeds begin to open, blue jays and chickadees will come to feed.

When the sunflower begins to bloom, bees will visit to gather nectar.

When seeds begin to form, goldfinches will come to feast.
The Medicine Wheel can help us to understand the life cycle of a sunflower.
Ntasuekml Aq Witanm
[my sunflower and my community]
draw inside your sunflowers

Nuji
Kina’mua’tijik
[school teachers]

Nitapk
[friends]

Ta’nik
Nusaptmi’tij
Mawi Kisitaqn
[natural resource guardians]

Jiksu’k
[family]

Ta’nik
Ajipjutu’tij
Wantaqo’ti Ten
[RCMP Officers]

Toqi Kejik
[neighbours]

Nuji Npitaqtijik
[health care people]

Nuji
Toqomajo’tk
Mawi
Kisitaqn
[scientists]