the Jane Goodall Institute of Canada
FOR WILDLIFE RESEARCH, EDUCATION AND CONSERVATION

Learning for a Sustainable Future
LSF

Protecting our Sacred Water

Supporting First Nations, Métis and Inuit Youth to make Positive Changes in their Communities: A Guide for Educators and Youth Program Facilitators

With the Support of:
RBC
RBC Blue Water Project™
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Jane Goodall Institute

The Jane Goodall Institute of Canada (JGI) supports wildlife research, education and conservation. The Institute promotes informed and compassionate action to improve the environment, which is shared by all Earth's living creatures, and recognizes the importance of local and Indigenous knowledge in the development and implementation of development projects.

Participation with local villages and Elders is a focal point of the Jane Goodall Institute's work in Africa. Community discussions and participatory community mapping are the starting point for many projects. They provide the foundation of shared and Indigenous knowledge from which to build projects through community-centred conservaton (CCC). Community-centred conservation is a multi-disciplinary model to protect ecosystems and maintain biodiversity, while improving human living standards. This approach relies on local communities sustainably managing their natural resources, while simultaneously addressing their socio-economic, health and education needs. CCC recognizes that communities are not homogenous or static, and thus uses dynamic and inclusive strategies to empower, build capacity, and find solutions that are relevant and effective.

JGI's education programs all around the world aim to promote sustainable citizenship; children and youth who understand the interconnectedness of the environment, society and the economy and have the skills, values and knowledge to take ethical and sustainable action on community development and conservation issues. JGI achieves this by providing professional development, resources and support to educators.

Please visit www.rootsandshoots.ca for more information on opportunities for professional development and to download our resources for teachers.

the Jane Goodall Institute

FUNDING MAY BE AVAILABLE TO SUPPORT YOUTH-LED WATER-BASED ACTION PROJECTS DEVELOPED USING THIS GUIDE!

JGI offers funding for projects that address community issues. JGI places great value on the process of youth-led action planning.

Applicants for funding must demonstrate that the proposed project is youth-led and that activities from this guide have been used to develop specific skills, values and knowledge throughout the action planning process.

For more information, please email:
roots_shoots@janegoodall.ca

Learning for a Sustainable Future

Transforming Canada's Education System

Learning for a Sustainable Future (LSF) is a Canadian charity, founded in 1991 to help prepare youth to become responsible citizens with the knowledge, skills, values, perspectives and practices to address the rising economic, social, and environmental challenges of the 21st century.

LSF works together with educators, students, parents, government, community members and business leaders to integrate the concepts and principles of sustainable development into education policy, school curricula, teacher education, and student-led action across Canada. Please visit www.lsf-lst.ca

To support educators with the integration of sustainability-related concepts into their teaching practice, LSF created *Resources for Rethinking*. *Resources for Rethinking* (R4R) is a free online database of hundreds of teaching resources. Educators can search for the highest quality, *teacher*-reviewed, curriculum-matched lesson plans and children's literature on the interwoven environmental, social and economic dimensions of our world. The resources promote learning that is interdisciplinary and action oriented. Teachers can search by jurisdiction, subject, grade, and sustainability issue. Resources are available in English and French. Please visit www.R4R.ca

LSF Funding to support youth-led water-based action projects developed using this guide!

LSF offers funding for projects that address water issues through Project FLOW – For the Love Of Water.

Project FLOW action projects must be interactive, educational, and address a local water-issue through an awareness campaign or other action component.

For more information, please visit: www.r4r.ca/project-flow

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Figure 1 – Ron Brent Elementary students checking for bugs. Prince George, BC.

Overview – Key things about this guide

1. Connections to the Ontario curriculum

This guide helps students to achieve the Ontario curriculum outcomes. It is not something 'extra'. Students will learn 'through' the development and implementation of their action projects, rather than 'about' action. See Appendix A for specific Ontario Curriculum connections.

2. Connections to Youth Programs for Program Facilitators

Action projects develop the knowledge, skills and attitudes that are central to many youth programs. Action projects:

- develop communication skills
- foster critical thinking skills
- promote leadership skills
- help young people to identify things that are important to them and support them to think through the process required to make positive change
- offer opportunities for young people to experience meaningful success
- offer youth an opportunity to learn about and understand FNMI spiritual teachings, including the teaching that all living beings have a Spirit

3. Funding may be available to support youth-led water-based action projects developed using this guide!

- JGI offers funding for projects that address community issues and are youth-led.
- Applicants for funding must demonstrate that the proposed project is youth-led and that activities from this guide have been used to develop specific skills, values and knowledge throughout the action planning process. For more information, please email info@lsf-lst.ca or roots_shoots@janegoodall.ca

Figure 2 - Ron Brent Elementary students catching bugs. Prince George, BC.

4. Importance of youth-led water projects

Action projects:

- offer *authentic, relevant, meaningful* opportunities for learning and for taking responsibility create *a natural relationship between* the people in the school/program and their community
- can help show young people, and the wider community, what active citizenship looks, sounds and feels like. This increases the likelihood that participants will engage in future action cultivate skills, knowledge, and attitudes necessary for active citizenship
- are experiential and cater to different learning styles
- illuminate the trans-disciplinary and deeply interconnected nature of real problems
- can provide students with opportunities to fall in love with the Earth—which then becomes its own motivator to act

Part One: Developing a respectful understanding of FNMI people, culture and knowledge

A. Introduction

What is in this Guide? Who is this Guide for?

This guide provides information to help teachers and community program facilitators engage students and youth in action projects related to water issues.

The guide focuses specifically on how to help engage First Nations, Métis and Inuit (FNMI) youth to take action to create change on an issue they care about, and how to respectfully incorporate FNMI knowledge and culture into your classroom or program. The Action Process has been designed to utilize and honour FNMI ways of knowing. We believe that this is integral to the creation of sustainable communities.

> In Aboriginal traditions, leadership is taught through service—helping others is a critical component of learning. Traditionally, being a good helper is an important value to live by. If people help one another with kindness, things will go well. Silent leadership, or living in "right relationship" with others, can be a very powerful learning force. Aboriginal students need opportunities to create change in their classrooms, their schools and in our complex world. *Our Words Our Ways* - p. 50

Part One of this guide provides information to help you develop a respectful understanding of FNMI people, culture and knowledge. Much of the information presented in these sections is geared toward readers who are not First Nations, Métis or Inuit, but who work with students/youth who are FNMI. For this reason, some of the information in this section of the guide may not be of as much benefit to FNMI readers who may already have a better understanding of the concepts discussed.

Part Two of this guide will be of benefit to all readers as it provides a detailed overview of an action process as well as activities to support each step in the design and implementation of your action projects. This section also includes suggestions for ways to develop a respectful understanding of FNMI knowledge with your students/youth participants and ways to incorporate traditional FNMI knowledge into your action project.

A large number of supporting activities are provided in this guide. You probably will not be able to do every activity provided. When choosing which activities you will use, we encourage you to consider the following:

- Listen carefully to what your young people care about (see Activities on pages 75 and 78).
- Take time to fan the flames of the young peoples' concern about the issue (see Activities on pages: 74, 79, 82, 83 and 83).
- Help students to choose a project and goals that are achievable so that the young people will experience success. See steps 5 and 15 in the ***Project Planning Template*** on page 97.
- Do something real. This is not a guide about simulations or theory.
- Celebrate.
- Ask for help from JGI and LSF and from resources within your community.

Figure 3 - Source: Alberta Education, FNMI Education

A Note About the Language in this Guide

Since this guide is intended for teachers and community program facilitators, sometimes young people/youth are referred to as ***participants*** rather than ***students***. In general, the terms students, youth and participants are used interchangeably throughout this guide. Group leaders may also be referred to as a ***facilitator or educator*** rather than a teacher.

FNMI refers to First Nations, Métis and Inuit People.

How to Use this Guide

1. Review the section headings in Part One of this guide to see which topics may be of interest to you and your students. Then, read those sections keeping in mind how the information might apply to the specific circumstances of the students in your class or the youth in your program.
2. Use the action process and accompanying activities in **Part Two** to effectively bring the ideas from **Part One** into your classroom or youth program.
3. Periodically revisit the relevant sections of Part One of this guide to reflect on the work you've been doing with your students or youth participants.

Guiding Principles of This Guide

1. **Water is a vital resource**. It is important for youth to understand how water issues affect them today and in future.

2. Opportunities to make positive changes in our communities are **beneficial for everyone.**

3. Action projects are a great way for both FNMI and non-FNMI young people to learn because they are **holistic, reflective and collaborative.**

4. To get the most out of action projects, participants need **good, well-equipped facilitators**.

5. It is important for all people to try to develop an understanding and respect for FNMI knowledge and spiritual ways, especially teachers and facilitators who work with FNMI youth.

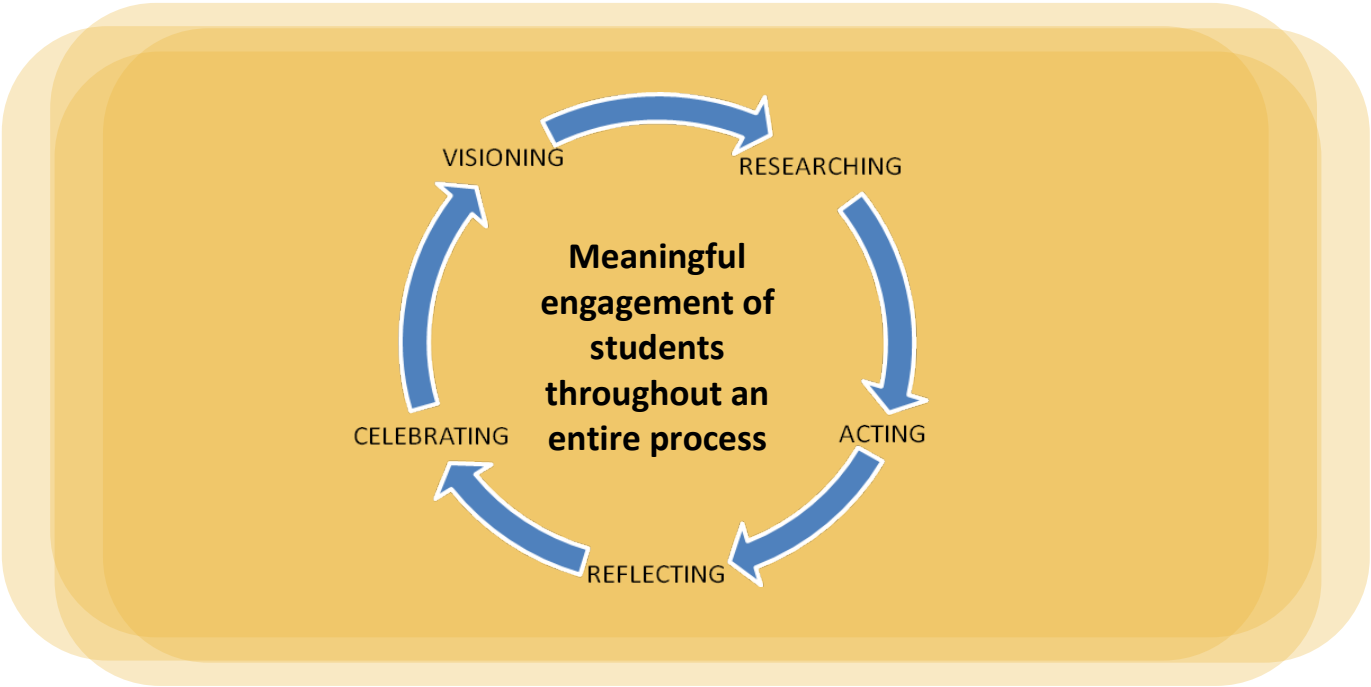
Figure 4 - Louis Riel School – student dancers (Kodi B., Phoenix H., Mia O., Kyra R., Faith S.) demonstrate their talents for the audience. Source: Calgary Board of Education

What are Action Projects?

This guide provides information and activities to support teachers and program leaders to facilitate action projects with young people.

Although *activities* and A*ction Projects* are both experiential, there are many differences between them. For example, an 'activity' may involve hands-on work and it may be fun and engaging, but it is not necessarily an action project. An example of an activity would be a tree-planting event adults organized without consultation with young people and that is ***not*** in response to concerns expressed by young people.

In comparison, when doing an 'action project' students are meaningfully engaged throughout the entire process—from deciding on the topic of the project to how it will be carried out. The following graphic illustrates some of the distinguishing aspects of Action Projects:



B. Developing an understanding and respect for First Nations, Métis and Inuit peoples

Who are First Nations, Métis and Inuit People?

As of the 2006 census, First Nations, Métis and Inuit people in Canada made up 3.8% of the national population. This figure includes 389,785 Métis people and 50,485 Inuit people. As of 2011, there were 704,851 First Nations people in Canada and 614 First Nations communities.

> After participating in an experiential unit about First Nations people in Saskatchewan, one young person reported: "Before this unit, to me – as rude as it is – it was 'Indians'; it wasn't 'First Nations.' They were all like one. I didn't even think about how it was different people – they were just 'Indians.': Capello and Tupper p.15

First Nation, Métis and Inuit populations are the fastest growing in Canada:

- From 1996 to 2001, these populations grew by more than 22 percent while the non-Aboriginal population increased by only 3.4 percent[i].
- The median age of First Nations, Métis and Inuit peoples is well below that of the non-Aboriginal population. In 2001, 50 percent of the First Nations population was less than 24.7 years old.[iiiii]

First Nations, Métis and Inuit cultures are also very different. There can also be major differences between First Nations, for example between Ojibway and Mi'Kmaq Nations. This includes having distinctive cultures, languages, art, music and knowledge/learning systems."[iv]

What is the right term to use when speaking about First Nations, Métis and Inuit peoples?

In Canada, the term '*Aboriginal*` encompasses three different groups of peoples: First Nations, Métis (people of mixed First Nations and European ancestry) and Inuit (Indigenous people of the Arctic). Although it is acceptable to use the word Aboriginal, the most appropriate and respectful thing to do is to use the full names of the three groups: First Nations, Métis, and Inuit. The acronym FNMI is also growing in use across Canada and particularly in written documents.

The term Native has a similar meaning to Aboriginal. Native Peoples is a collective term used to describe the descendants of the original peoples of North America. The term is increasingly seen as outdated (particularly when used as a noun) and is starting to lose acceptance.

The term *Indigenous* is generally used to refer to Indigenous peoples collectively around the world. According to the United Nations, "Indigenous communities, peoples and nations are those which, having a historical continuity with pre-invasion and pre-colonial societies that developed on their territories, consider themselves distinct from other sectors of the societies now prevailing on

those territories, or parts of them. They form at present non-dominant sectors of society and are determined to preserve, develop and transmit to future generations their ancestral territories, and their ethnic identity, as the basis of their continued existence as peoples, in accordance with their own cultural patterns, social institutions and legal system."[v]

Self-Identification and First Nations, Métis and Inuit Youth

It is important to understand that there are significant differences between First Nations, Métis and Inuit peoples. They are distinct peoples in the same way that all nations are distinct, as for example Canadians, Italians and Guatemalans. As such, it is inappropriate and disrespectful to attempt to apply a sense of homogeneity to FNMI peoples. Nevertheless, there are some common threads that link FNMI peoples and can be used to help develop an understanding and respect for their language, cultures and traditional knowledge.

Figure 5 - Source: Hamilton-Wentworth Catholic District School Board

The teaching resource, *Our Words, Our Ways: Teaching First Nations, Métis and Inuit Learners,* identifies some common threads and differences between the experiences of FNMI learners.

> *"Although common threads may run through the experiences of Aboriginal students, each student will bring a varying degree of involvement with aspects of traditional and contemporary Aboriginal cultures and mainstream cultures. […] Aboriginal students:*
>
> - *may identify themselves as First Nations, Métis or Inuit—or they may not identify themselves as Aboriginal at all*[1]
> - *may live anywhere along a continuum of the following lifestyles: traditional*[2]*, bicultural*[3] *or assimilated*[4]
> - *may have an urban, rural, reserve or settlement background*[5]
> - *may speak an Aboriginal language at home, or may hear and understand an Aboriginal language but not be able to speak it."*[vi]

[1] Some FNMI peoples are totally unfamiliar with their traditional language and may not know or adhere to their traditional teachings or way of life. These people are often members of families who suffer intergenerational affects of residential school and the "sixties scoop."

[2] A traditional lifestyle is one in which a person lives completely, or almost completely, according to the traditional teachings about their way of life as passed down from their ancestors who were given the knowledge from the Creator.

[3] A bicultural lifestyle is one in which a person incorporates elements of their traditional way of life with the dominant "Western" culture's way of life. Many FNMI peoples live a bicultural lifestyle, particularly those who live in urban centres and those who are working to regain their way of life, which was lost through colonial practices like residential school.

[4] An assimilated lifestyle is one in which a person has adopted the mindset of the dominant "Western" culture. In doing so, this person has put their spirit bundle down and does not acknowledge their traditional way of life. Often these people are survivors or the children of survivors of residential school or the "sixties scoop."

[5] Métis people have settlements and are the most likely to have a settlement background.

Work Toward a Greater Understanding of the Context of the Youth`s Lives

Canada has a complex history in its relationship with First Nation, Métis and Inuit peoples. This complexity is deeply rooted in the differences in understanding of land ownership versus shared use when European settlers arrived in Canada and began trading relationships with Canada's First Nation and Inuit peoples. This difference in understanding began evident through the treaty process, which has resulted in issues of equity around resource use and access to land for First Nation, Métis and Inuit peoples. It has also led to inequity in access to services such as education, health care, community access and clean water. Issues of inequity for FNMI peoples has led to multiple overlapping crises in many FNMI communities, like the housing crisis in Attawapiskat, the water crisis in Kashechewan, and the ongoing education crises faced by most FNMI communities.[vii] To begin to fix these inequalities, Canadians need to understand what it means to be First Nations, Métis and Inuit in the modern context. Canadians also need to develop an understanding and respect for the inherent value of FNMI traditional ways of life, knowledge and learning.

- The following Declaration, from the Assembly of First Nations, provides some insight into First Nations identity:

"A Declaration of First Nations

- ➔ *We the Original Peoples of this land know the Creator put us here.*
- ➔ *The Creator gave us laws that govern all our relationships to live in harmony with nature and [human]kind.*
- ➔ *The Laws of the Creator defined our rights and responsibilities.*
- ➔ *The Creator gave us our spiritual beliefs, our languages, our culture, and a place on Mother Earth which provided us with all our needs.*
- ➔ *We have maintained our Freedom, our Languages, and our Traditions from time immemorial.*
- ➔ *We continue to exercise the rights and fulfill the responsibilities and obligations given to us by the Creator for the land upon which we were placed.*
- ➔ *The Creator has given us the right to govern ourselves and the right to self-determination.*
- ➔ *The rights and responsibilities given to us by the Creator cannot be altered or taken away by any other Nation."*[viii]

Why is it Important to Understand and Respect Cultural Diversity?

Understanding other peoples and cultures, particularly those of FNMI young people, provides important knowledge and benefits for everyone. For example:

- Recent research has demonstrated that the intelligence of a group is correlated with the ***diversity*** of a group, not with the intelligence of its individual members.[ix] Respecting diversity may help all of us to more effectively address environmental, social and economic challenges.
  - Traditional First Nations teachings about the four sacred colours discuss this and illustrate the interconnectedness and importance of diversity.
- "Respect for the diversity of cultures, tolerance, dialogue and cooperation, in a climate of mutual trust and understanding are among the best guarantees of international peace and security."[x]
- "Culture is at the heart of contemporary debates about identity, social cohesion, and the development of a knowledge-based economy."[xi]
- "The defence of cultural diversity is an ethical imperative, inseparable from respect for human dignity. It implies a commitment to human rights and fundamental freedoms, in particular the rights of persons belonging to minorities and those of Indigenous peoples."[xii]
- We are losing cultural diversity faster than we can create it. For example, less than 50 years ago, there were 6000 languages on the planet. Today, half of those languages no longer exist.

For more information about cultural diversity see Wade Davis's fabulous video about the importance of cultural diversity at:
http://blog.ted.com/2008/08/11/ archive_wade_da/

Action Project Example

This project celebrates the hard work of a small group of students (grades 3-6) led by two staff members at Riverview Elementary School: Riverview Elementary School has a commitment to both taking action to help the Earth and educating our students on environmental issues. During the last school year... our school did an evaluation of what our garbage output was. We used part the Waste Generation unit from LSF's *Resources for Rethinking* and the survey as tools to study what our garbage was composed of. Our green group then brainstormed ideas to reduce our waste based on what we knew; they brought in a couple of changes which lowered our garbage output. This school year we wanted to go further. We knew that one of the major sources of waste, in terms of volume, were the single serving milk containers almost every one of our students consume daily. As an inner city school, these milk cartons are a donation and an important nutritional supplement for many or our students. At the same time they were creating a lot of waste each day. A little research led us to the knowledge that our community, Verdun, would recycle the cartons if they were rinsed. The obvious solution would be for each class to recycle the cartons and send them to the recycling area. Unfortunately the staff felt this was not possible, would lead to too much lost class time, students out or class, etc. This initially seemed to be an insurmountable obstacle. Then two staff members came up with the idea of a small team of students who would take on this project. The principal agreed, the team was formed and so far this year we have filled 80 large recycling bags to date and have lowered our garbage considerably. As well the team created a giant thermometer to measure how many bags have been filled. This giant poster is prominently displayed at the main entrance of our school. Because of this, our small team has become environmental heroes to the school. This is particularly moving since some of the team have learning and behavioural challenges. This program has not only changed our schools thoughts on recycling, it has provided these students with self-confidence, the ability to work in a team and to complete tasks. It has also given them the opportunity to actively be a part of the school and to promote positive behaviour.

C. Incorporating Respect and Understanding of FNMI Cultures and Knowledge in Your Classroom or Program

Incorporating respect and understanding of FNMI cultures is a step toward enhancing cultural diversity.

…But I Don't Know Enough to Incorporate Aspects of First Nations, Métis and/or Inuit Culture in My Teaching/Program

Dr. Susan Dion at York University coined the term "perfect stranger" to describe non-FNMI people who feel that they don't know enough about FNMI culture to get involved in FNMI issues.'[xiii] Dr. Dion suggests that people take this stance as a way to deflect responsibility; "if you have no relationship to a group of people, you also have no obligation to learn more or play a role in redressing historical injustices."

Instead of taking the "perfect stranger" approach, we hope that you will behave in the same manner that you hope your students will take when they encounter gaps in their knowledge: be respectful, practise humility, seek wisdom, and recognize that it is okay to make mistakes.

Remember, it's okay if you get it wrong ––***the bigger mistake is not taking the opportunity to act, or to learn, because you're afraid of getting it wrong.*** To help make it easier, try one or two of the suggestions in this guide and/or contact us for help: carissa@janegoodall.ca or teri@lsf-lst.ca.

Ideas for Supporting the Learning Needs of First Nations, Métis and Inuit Young People

Common themes emerge from research on how to support the success of FNMI students. In general, FNMI students' are more successful when:

Figure 6 - Ron Brent Elementary students learning to measure the pH of the water. Prince George, BC.

1. FNMI ways of knowing (FNMI knowledge) are incorporated into the learning process.
   - Suggestions for how to do this can be found below in this section and in the section of this guide entitled *Respecting Traditional FNMI Ways of Understanding Nature 32.*
2. Teachers are educated about FNMI cultures and ways of knowing (which you've started to do by reading this guide—kudos!).
3. Mentorship relationships are cultivated
   - See the explanation below and Step 1 of the Action Process section on page 72.
4. Priority is given to developing strong relationships with parents and the community.[xiv]
5. FNMI students know you believe in them and support them.

- Research by Anishnabek teacher and writer Dr. Pamela Toulouse has shown that for:

> *"Aboriginal students', self-esteem is a key factor in their school success. …It is crucial that Aboriginal students feel they have a place in our schools and that teachers have high expectations of their potential. This can be achieved by ensuring that our own belief in the Aboriginal student is one of utmost respect. Educators can promote a positive learning experience for Aboriginal students by ensuring that their culture is represented in the classroom. It is also key that these students know that their teachers care about them and have the highest regard for their learning. Respect (in Ojibwe terms) means knowing that we are sacred and that we have a place in this world. This is how we need to foster and support our Aboriginal students."*[xv]

- Both FNMI and non-FNMI young people perform better when they feel cared for by their teachers. Study after study identifies that First Nations, Métis and Inuit students need to feel cared for in order to succeed in school. We need to demonstrate our care in a way that 'works' for FNMI students. Here are some suggestions on how to do this:

    - If you are not First Nations, Métis, or Inuit recognize this and acknowledge that your ways of demonstrating care may be different from what your FNMI students' need, want or may do in return. Be reflective about what your students need from you.
    - See the RESPECTFUL COMMUNICATION section of this guide to learn about cultural differences in communication on page 38.
    - Reflect on your own ancestry and your own preferences for caring and being cared for. How do they interconnect with your students needs?
    - Ask your students what makes them feel cared for and motivated.

For notes about the preferred learning styles of some FNMI Students see the "HONOURING DIVERSE WAYS OF COMING TO KNOW" section of this guide on page 25.

Demonstrating respect for First Nations, Métis and Inuit cultures and knowledge

1. **Engage young people in a discussion about culture.**
   - It is important that conversations about culture take place in a safe environment where mutual trust and understanding, cooperation, kindness and respect are maintained at all times.

2. **Find ways to learn and explore FNMI cultures** with young people, so that they can develop an understanding and respect for traditional cultures.

   - For some, this may seem daunting at first so here are some examples to help you get started:
     - Try to use some words from the FNMI language(s) of your students
       - Use the Internet to learn a few helpful words.
       - Ask your students and their families for words.
     - Create a sign for your door that acknowledges the First Nation on whose territory the school is located.[xvi]
     - Hang posters of artwork by FNMI peoples.
     - Invite FNMI guests, particularly Elders or traditional teachers, to share knowledge and skills related to the curriculum.
     - Hang posters and signs that are in FNMI language(s). These can be:
       - Student-made
       - Created by other organizations
         - For example the Metro Toronto Zoo's Turtle Island Conservation project has posters that provide names of turtles and other species in FNMI languages.
     - Use books that feature people from diverse backgrounds. Many bookstores carry a variety of FNMI authored and related books. For example, GoodMinds.com is an Aboriginal owned distributor of a wide variety of FNMI books.
     - Look for appropriate opportunities to attend culturally specific events, like Powwows, or any type of celebration/event that is important to the communities of the young people with whom you work.
     - Consider starting a new project or an event with a ceremony. It is important to understand that not just anyone can do this. The right to lead a traditional ceremony or circle must be earned from an FNMI lodge, longhouse or through other appropriate sources. Elders and Traditional Teachers can generally lead ceremonies and circles. It may also be appropriate to ask a member of a local FNMI community or an FNMI student if it is a basic ceremony like a smudge.

3. Become comfortable inviting the "whole child" into your classroom.
   - Some teachers and leaders within the public school system in Canada may have an uncomfortable relationship with spirituality, yet for traditional FNMI students, spirituality is an integral part of their understanding of themselves and their world. Given the holistic nature of the FNMI worldview, one's spirituality cannot be separated—it comes into the classroom with the student.

4. Learn to understand and respect FNMI learning systems or ways of knowing.
   - See the Traditional FNMI Ways of Understanding Nature section on page 32 and the Stories and Teachings section on page 49 of this guide.

5. Explore how FNMI and other Indigenous cultures communicate. Look for different ways that people communicate (i.e. with words, gestures and eye contact) and try to make connections between communication methods and morality, respect and Spirituality.
   - See the Respectful Communication – Consider Cultural Differences in Communication Styles section of this guide on page 38 for some information about cultural differences in communication.

6. Balance historical and contemporary views of FNMI cultures.[xvii]

7. Include FNMI perspectives on contemporary discussions.
   - Use examples of research and writings by Canadian and global FNMI and Indigenous leaders/contributors in curriculum units.
   - Keep abreast of local, national and international issues facing FNMI communities.

> "Only after we become aware of the [cultural] differences and understand them well enough to accept them as equally valid and good are we prepared to teach [FNMI] students. Then neither the teacher nor the child will be pressured to adopt the other's culture, and mutual respect and understanding can develop." Gilliland 1999, p. 5 as quoted in *Our Words Our Ways* p. 21

8. Acknowledge and discuss Eurocentrism in the curriculum, the school and the society in which you and the youth live.

Ideas about How to Confront Eurocentrism with Young People

- Reflect on your own ancestry and how it has impacted you and your family. Consider how you are similar to and different from other people of similar ancestry.
- Explore the differences between the dominant "Western" cultures emphasis on individualism, control and competition and FNMI cultural approaches. For example, many First Nations emphasize collective responsibilities and sharing over individual rights.

"Today the Aboriginal peoples and other Canadians stand on opposite shores of a wide river of mistrust and misunderstanding. Each continues to search through the mist for a clear reflection in the waters along the opposite shore. If we are truly to resolve the issues that separate us, that tear at the heart of this great country … then we must each retrace our steps through our history, to the source of our misperception and misconception of each other's truth. (pp. 21-22 Rod Robinson, Nishga First Nation, cited in Battiste (why is this blue?)

- If you are not an FNMI person, recognize that your concept of an FNMI person may be steeped in characterizations or stereotypes created by popular culture and by your own schooling experience; your students are more complex and contemporary than these characterizations.
- Identify and reflect on how you feel about FNMI issues and have a similar discussion with your students/participants.
- Saskatchewan researchers argue that feelings of guilt and anger are important parts of anti-racist education.[xviii] They suggest that without working through these feelings, racist ideas about FNMI people cannot be addressed. Without addressing racism, it is difficult to transform power relations that allow others to see FNMI students as inferior in schools. St. Denis and Schick explain:

"Without a critical analysis, an information session designed to teach more about Aboriginal peoples [may] reinforce processes of Othering whereby the customs and people themselves are taken up as exotic, quaint, or problematic, as something that happened in the past, as part of the nation's celebrated history. Multicultural education that emphasizes cultural difference and ignores the salience of race is inadequate as a preparation for pre-service teachers and for any other form of cultural awareness education intending to increase understanding between Aboriginal and white Canadians in a post/colonial society." [xix]

- Come to terms with First Nations, Métis, and Inuit history. This means learning about:
  - "Systematic attempts to colonize, assimilate, and at times, extinguish the peoples who are indigenous to the land."[xx]
  - Residential school systems. The mandate of these schools was to 'kill the Indian in the child.' Residential school systems were responsible for the attempted cultural assimilation of Canada's First Nation children by forbidding their own cultural practices such as speaking their own language, engaging in their own spiritual ceremonies, and not allowing traditional dress.
  - The "sixties scoop." This was the Canadian government's practise of taking FNMI babies from families, often without consent, and adopting them into non-FNMI families in unusually high numbers from the 1960s to the 1980s.
  - How colonization attempts and systemic discrimination remain recent and current events. For example,
    - the last Residential School in Canada closed in 1996.
    - today, First Nations children in Band Operated schools are still underfunded. Funding for Band operated schools is, on average, $3000 per year per student less than students in provincial schools.
    - today, the care of First Nations children in the Children's Aid system is dramatically underfunded compared with non-First Nations children.
  - Learn, appreciate and grieve.
    - Provide yourself with time and space to emotionally process what you have learned.

- Celebrate new found understandings. Reflect on how they can inform your work.

"School curriculum, practices, and programs that value and incorporate local Indigenous knowledge have proven to be successful in increasing Aboriginal student success and academic achievement" (Pattniak, 2004 as quoted in CCL Promising Practices document p.8).

Understanding the Levels of Integration of FNMI and Multicultural Content

Educators and program facilitators can integrate multicultural content into their classrooms, lessons and programs in a number of ways. The level of integration can go from more superficial (Level 1) to truly transformative (Level 4).

Level 1: The Contributions Approach

- Focuses on heroes, holidays, and discrete cultural elements, like the 13 moons of the Anishinaabe calendar. When seeking to use this approach with FNMI cultures you can explore sacred ceremonial days and celebrations with the understanding that they are usually different for each nation.

Level 2: The Additive Approach

- Content, concepts, themes, and perspectives are added to the curriculum without changing its structure.

Level 3: The Transformation Approach

- The structure of the curriculum is changed to enable students to view concepts, issues, events, and themes from the perspectives of diverse ethnic and cultural groups.

Level 4: The Social Action Approach

- Students make decisions on important social issues and take action to solve them.[xxi] This approach would include doing water-based Action Projects using this guide.

Incorporating Mentorship Relationships in your Action Project

Traditionally, mentorship has been an important component of education for many FNMI peoples. Using mentorship relationships for an action project can help to:

- Demonstrate an authentic approach to respecting traditional FNMI ways of being.
- Create a learning situation that meets the needs of your students' learning styles and cultures.

Guidance for Fostering Mentorship Relationships

Consider creating a mentorship relationship between your students and available adults and/or senior students. For example, grade 10 students could go through the Action Project process once on their own and then be partnered with a grade 8 class for the next Action Project.

Some things to consider:

- Mentorship relationships do not have to be 1:1—small groups with one mentor can work too.
- Provide mentors with an orientation to the project and the student(s) and create ways to explicitly check in with mentors and mentees (younger participants) about how the process is going.
- Make good pairings:
  - Consider interests, gender, skills of mentors, the needs of the youth and other information before setting up the mentoring relationship.
- Ensure that there is appropriate preparation and support for mentors. Carefully describe the expectations for the mentors (before they agree to participate) and the mentees.

Other benefits to mentorship relationships are:

- If the relationships are between secondary and elementary students, having a relationship with a secondary student can assist the elementary student with a smooth transition to high school.
- They provide opportunities for communal celebrations of the student's culture and accomplishments.
- They create a safe place to seek support on other issues.
- Mentorship builds skills for mentors and mentees.

Look for this symbol throughout the guide. It indicates activities that would be well suited to sharing with mentors.

An Example of a First Nations Teaching and How to Incorporate it into your Program

Applying the Seven Grandfather Teachings to Education

The 7 Grandfather Teachings were given to the Anishinaabe people by the Creator. First Nations peoples are traditionally taught that if you understand and live by these teachings you will have a good life.

Teaching	*Implications for Education*
Respect	Have healthy and helpful expectations for FNMI students. Honour their culture, language and world view in the school and teach others to respect and understand their history and way of life.
Love	Demonstrate your belief (as an educator/facilitator) that your FNMI students can and will succeed through your, and their, commitment to their learning.
Bravery	Commit to changing your school curriculum by including the contributions, innovations and inventions of FNMI people.
Wisdom	Share effective practices in FNMI education through ongoing professional development and research that focuses on imbuing equity and incorporating other ways of knowing/learning/teaching.
Humility	Acknowledge that Canadians need to learn more about the diversity of FNMI peoples and develop respect for the inherent value of FNMI knowledge and ways of life.
Honesty	Accept that Canadians, and all people, have much to learn from FNMI peoples. Review and find ways to overcome social and institutional barriers and stereotypes that marginalize FNMI peoples and knowledge. For example, increase parental-guardian involvement, teacher education, opportunities to incorporate traditional ways of understanding nature and other types of FNMI knowledge in the curriculum.
Truth	Redefine success by developing culturally appropriate and measurable outcomes for FNMI student success and use them as key indicators of how inclusive our curriculum and pedagogy really are.[xxii]

D. Honouring Diverse Ways of Coming-to-Know

Incorporating successful *Learning Strategies* for FNMI youth into your Action Projects

First Nations, Métis and Inuit students are a diverse group, yet in general FNMI students experience more success when learning:

1. **Is Holistic** - in this context holistic means learning about the whole first and then breaking it down into parts.[xxiii]
   - An action project is a good way to help students to learn from whole to part. Avoid the temptation to frontload the project with pre-teaching about concepts that are initially abstract. ***The action project is not the culminating activity; it is the vehicle through which students learn important skills and knowledge that meets stated provincial or territorial curriculum outcomes/expectations.***

2. **Incorporates strong visual components or tools and offers opportunities for hands-on work**.[xxiv]
   - Activities that integrate the use of visual components and organizers are provided in this guide to help students with Steps 2, 3, 4, 5 and 12 of the Action Process.

3. **Involves reflective modes of learning**.[xxv]
   - Step 12 of the Action Process is a formal reflection on the project; however, **students are encouraged to reflect throughout the project.** If you are assessing the project, this could be done through written, visual, audio/visual reflections for the Project Portfolio assignment on page 123.

4. **Incorporates cooperative group work and talking.**[xxvi]
   - In action projects, cooperative group talking is encouraged through:
     - Mentorship relationships (see page 23).
     - The small group nature of many of the activities.

> "Only after we become aware of the [cultural] differences and understand them well enough to accept them as equally valid and good are we prepared to teach [FNMI] students. Then neither the teacher nor the child will be pressured to adopt the other's culture, and mutual respect and understanding can develop."
> Gilliland 1999, p. 5 as quoted in *Our Words Our Ways* p. 21

5. **Is embedded in real life**, rather than by practice in artificial settings.[xxvii]
   - This should be the essence of the action project.

6. **Focuses on people and relationships rather than on information**.[xxviii]
   - This can be particularly emphasized in Step 2, Step 3, Step 5, Step 7, Step 8, Step 11, and Step 12 of the action process.

- Consider building mentorship relationships into your project (see page 23 for tips on how).

Honouring and Incorporating FNMI Ways of Coming to Know

Like the dominant "Western" culture, FNMI peoples have many sources for gaining knowledge and learning. This section of the guide highlights some examples of FNMI learning systems or ways of coming-to-know and provides suggestions for incorporating them into the Action Project process.

Spirit Bundles: A Spiritual Way of Coming to Know

Many First Nations learning systems are based on teachings about the Spirit Bundle, the Medicine Bundle, the Medicine Wheel and the Seven Grandfather Teachings. All of this knowledge is given to First Nations people while they are in their mother's womb. This knowledge is all that is needed to have a very Good Life. Where this knowledge is forgotten, the traditional way to regain it is by fasting and sitting with Mother Earth until the individual has relearned what they have forgotten. Nurturing guides—Elders, teachers, leaders, parents, aunties, uncles and grandparents—and the knowledge gained through our foundations are helpers that are provided to First Nations individuals to give them the spiritual, mental and emotional help they need to remember and use the spirit bundle teachings they learned in their mother`s womb so they can live in a Good Way.

A Spirit Bundle Teaching

Figure 7 - Spirit Bundle by Paul Morin

The Elders teach that all things on Mother Earth—the land, the water, the animals, and humans—have a Spirit. The Creator gives all children, regardless of colour, a spirit bundle when they seek to enter their chosen mother's womb. The nine moons a child spends in her or his mother's womb are the foundation for life. When the child's spirit enters the mother's womb it is in balance. It is the mother's responsibility to teach the child about her or his spirit bundle—the child`s name, clan, traditional teachings and traditional tools—while the child is in the womb. These things remain with the child for her or his entire life.

Surrounded by the mother's waters of life, children listen and communicate during this time, so it is important that pregnant mothers provide the child inside of them with mental, emotional, spiritual and physical nourishment. The child's time in the womb is also when the child is able to develop a strong connection between their mind and heart, which is necessary for individual wellbeing. Wellbeing is enhanced when individuals have strong self-esteem and understand the importance of self-care and care for others. The spirit of the child in the womb knows and learns about the importance of caring for her or his spirit, her/his future children's spirit and the Spirit of the water and Earth on which she/he lives. When the child is born it is her or his mother's responsibility to remind the

child's spirit about these spirit bundle teachings during the First Stage of Anishinaabe life. And when needed throughout the rest of the child's life.

Incorporate Storytelling in Your Class or Program

The importance and power of stories in human history cannot be overstated.

Louise Profeit-LeBlanc is a storyteller from the Nacho Nyak Dun First Nation in north-eastern Yukon. She explains:

> *When I go to the schools I help the teachers to realize the power of story. Then I begin by sharing these myths with them, these ancestral stories of a great distant past which establishes strength within our children, not just First Nations children, all children. Look around us; how many heroes do we have? The world is bankrupt of heroes. I grew up with heroes. I grew up with giant killers. People, and we were a small bunch of people, used to kill giant beavers, giant jackfish, giants! I wasn't really scared of anything. I figured, well, my great-great-great-great-grandpa did that, so I can handle it. But the children nowadays don't have this. They don't have the continuous training and education about how not to be afraid of what lies before you, what lies around you, what's in your environment. And certainly they don't have the training to be inquisitive about it, to talk about the fears they might have. Their teachings are embodied in the myths to dispel all those fears, so people realize that we can move ahead (Profeit-LeBlanc 2002, 49).*[xxix]

Many FNMI peoples use different types of narratives to convey knowledge. It is important to know that each type of narrative may have specific protocols for when and how it can be told. For example, a "story" is about something that really happened, such as a Creation Story. A legend is a tale that gives lessons for us to learn from but may not have actually happened, for example a story about an Otter learning a life lesson. Many First Nations stories can be told any time of year, but some First Nations legends can only be told within the first snowfall and the last snowfall.

Native stories, which may be 30 to 50000 years old, have the ability to integrate and synthesize all the living relationships or events at any given moment in life. When we rely on a story to guide us, we are not only integrated with the natural environment around us and with our living relations, but also with the timeless past and culture of our ancestors. (Pam Colorado 1988,10)

When incorporating stories and legends in your action planning process you can use them to:

- motivate young people,
- build understanding about the water issue the students have selected,
- teach about how to deal with people who may block their ideas,
- learn how to see things from different perspectives.

Here are some suggestions about how to incorporate stories into your action process:

- talk to Elders to see if they have stories that they think may be helpful to your project
- use the stories in the Stories and Teachings section in this guide
- see Appendix E for suggestions for printed stories, and below for an explanation of how the story by Basil Johnston explains our relationship to Mother Earth?

"Traditionally, Aboriginal cultural knowledge is transmitted and documented primarily through the oral tradition, but also through such things as dramatic productions, dance performances, and they are documented on such artifacts as wampum belts, birch bark scrolls, totem poles, petroglyphs and masks. This is the Aboriginal way of transmitting knowledge and of recording information and history."

– Greg Young-Ing in Royal Commission on Aboriginal Peoples 1996c, p. 591 as Quoted in *Our Words Our Ways* p25

Many first peoples, including First Nations, use a combination of figurative and literal language in stories to provide insight into different aspects of creation and life. This is an important method of both teaching and coming to know for First Nations people. The story Thou Shalt Honour Earth Mother (page 59) by Basil Johnston is a wonderful example of how First Nation stories are used as a way of teaching and learning or coming to know about self and the world we live in.

For example, the opening paragraphs to the story offer ways of coming to know/teachings on a variety of levels. On the surface it teaches us that all beings are free and equal. At the same time it teaches us to question and think analytically about ourselves, how we interact with others, why people fight and why things are as they are. We then learn the importance of identity and place as well as the transience of life and about creation and reproduction. The story also offers a way of coming to know about ownership through the observation of wildlife. At the same time it offers knowledge about loss, the importance of gratitude for all things and stimulates the listener to question notions of entitlement and look at the purpose of life.

In this way the story offers the listener the opportunity to develop analytical and observation skills for coming to know things in their own way and provides knowledge and guidance about important aspects of life that support both the individual's and the community's wellbeing.

These are just some examples of the knowledge and ways of coming to know that are conveyed at the beginning of this story. We encourage you to further explore and discuss the story with your students to see what other knowledge and ways of coming to know the story has to share with you.

Incorporate the Arts

It is well documented that arts education offers positive experiences for all of us. Three important themes about the benefits of arts education for the lives of FNMI people emerged during recent consultations between First Nations, Métis and Inuit people and the Alberta Ministry of Education. These themes highlighted that **arts education:**

- **helps students discover their identity and culture**
- **makes healing and well-being possible, and**
- **provides a positive outlet for expression.**[xxx]

According to some First Nations Elders, each stroke of a paintbrush is a way of communicating with the Creator. Whether you are creating or observing an art project it is essential that you recognize the Spirit of the Project by naming it and celebrating the completion of the project by having a circle, feast and give away. By doing this everything will be connected and complete.

Figure 8 - Ron Brent Elementary students showing off their art work: paintings of salmon in the traditional Westcoast colors and using traditional FNMI art shapes. Prince George, BC.

Incorporate drama, photography, painting, murals, collage, music, and/or dance throughout the process of the action project both **as a means of learning about the selected water issue and as a means of reflecting on the action project. Consider having an arts-based celebration of the project.** See activities related to Steps 2, 3, 4, 9, 11, and 12 of the Action Process in this guide.

Invite Students to Share Cultural Knowledge

Respectfully ask your students' if they would like to share their cultural knowledge.

- Be careful not to publicly single out FNMI young people nor consider them an ambassador for all FNMI people.
- No one person can speak for an entire group.
- Speak to the youth individually or in small groups before the class/program to see if they would be interested in sharing. This will give them time to prepare and ensure they don't feel like they've been put on the spot.
- Be respectful when approaching FNMI youth, or any FNMI person, to ask them to share their traditional culture or knowledge. Remember, in Canadian residential schools, FNMI children were not permitted to practice their own cultural traditions. As a result, youth may have been brought up to be cautions about sharing cultural knowledge.

Reflect on what gets Prioritized and Evaluated

- When it comes to assessment, are the knowledge, skills, and attitudes that are important to your students and essential to effective action being appropriately valued? For example, if we understand that communication skills are essential to most of the work we all do in a modern context, are they being properly assessed? Are they being given as much value as 'information' students may have learned through the project? Do assessment questions/tasks celebrate authentic action skills...or simply ask for recall of Action Steps?

- Are there other ways in which the knowledge, skills and attitudes important to FNMI students can be implicitly and explicitly celebrated and prioritized?

Look for Opportunities to Provide Students with Choice

With very little effort on your part, students can be given important choices: choice of topic, process, and/or product. Providing students with meaningful choices helps students to feel:

- heard and valued,
- engaged, and
- like they can choose a medium that showcases their unique skills/talents/knowledge.

E. Respecting Traditional First Nations, Métis and Inuit Ways of Understanding Nature[6]

In Canada, conventional science is the dominant way of understanding the natural world and it is the foundation of 'school science'. However, there are many ways of understanding the natural world[7] including Traditional FNMI Ways of Understanding Nature, which is also commonly known as Traditional Ecological Knowledge. It is important to our development as individuals and our survival as a species that we appreciate and are able to critically analyze all ways of Understanding Nature, including conventional science.

Dr. Jane Goodall has spent many years working with Elders in communities around the world and recognizes the value of Indigenous Knowledge. Dr. Goodall has also worked with many Elders from the FNMI communities in Canada, valuing traditional FNMI Ways of Understanding Nature. The Jane Goodall Institute encourages all of us to try to understand and respect diverse ways of Understanding Nature.

The discussion below is intended to encourage respect for different ways of understanding and learning. It is not definitive. It is provided as a launching point for our collective efforts to understand the world around us, to reflect on how we interact with different ways of coming-to-know and to provide some assistance to help our students explore these complex ideas with us.

Ohén:ton Karihwatéhkwen is an Opening Address that Haudenausonee people, also known as the Iroquois or Six Nations, recite before any meeting, ceremony or event. The name literally means "what we say before we do anything important." The Opening Address is a source of immense knowledge, it teaches about

- The importance of having a common understanding among people who live and work together,
- How caring loving parents and grandparents support and nurture the growth and development of their children,
- respect and responsibility for self, all other types of humans, and all life forms,
- and instils a sense of self-worth and an understanding that being alive is a privilege and a gift to be valued and treasured,
- water ecology, the sacredness of water and that all things have a spirit,
- the medicinal and natural properties of plants, the importance of protecting these resources for future generations, and about traditional horticulture,
- humanity's roles and responsibilities to care for Mother Earth, and the Earth's cycles of life, death and rebirth, and how pollution interrupts that balance,
- concepts of interconnectedness, including how the cosmos and the Earth interact with and provide balance to each other,
- the importance of Spirituality and balance between the mind, body and spirit.

The Ohén:ton Karihwatéhkwen Opening Address provides a great example of how FNMI stories and ceremonies are a repository of great scientific and social knowledge. A translated version by Tom Porter called Respect – The Words That Come Before All Else can be found on page 49.

First Nations, Métis and Inuit Ways of Understanding Nature

FNMI Ways of Understanding Nature incorporate a number of learning methods, including ***rational, emotional, spiritual, active,*** *and* ***experiential*** processes. This is a ***holistic*** approach to understanding the world that respects the fact that there are many different avenues for coming to know or learn. Some of the different ways of learning used by FNMI peoples include: ***observing, using, making, doing, listening to stories, singing songs, dancing and spiritual connections****. Some examples of sources of FNMI knowledge include:*

- Creation Stories which were given by the Creator
- the ability to recognize that everything has a Spirit
- fasting,
- visioning,
- and Medicine Wheel teachings that provide insights for an individual's Life Plan.

Unlike the conventional science used by the dominant "Western" culture, FNMI ways of knowing are based on a holistic approach that incorporates the body, mind and spirit.

Traditional FNMI knowledge is also founded on a vast field of experience practice and observation, much more so than conventional science. . This is because FNMI knowledge, understanding and skills have been passed down, and built upon, from generation to generation without end. As a result, some FNMI people who study and work with the natural environment are able to do things that even scientific equipment cannot match. For example *"detect*[ing] *changes in taste, water, tissues, and other substances at levels below that of contemporary testing equipment."* A fact acknowledged by biologists and chemists in the field of conventional science.[xxxi]

The following is a review of some of the different approaches to understanding the natural world that are used by the dominant "Western" culture, FNMI cultures and people from other cultures around the world.

Conventional Science in Canada

Conventional science in Canada is one way of learning about and understanding the world. Conventional science involves a community of practitioners who try to determine scientific truth through sharing their learning and comparing it to that of other scientists. Knowledge or research that can be confirmed by other scientists is declared to be true. This process is thought to maximize objectivity although it is understood that it does not actually achieve total objectivity.[xxxii]

Conventional science is often presented as an objective, strictly rational process involving concrete steps known as the scientific method. In practice, however, both Traditional FNMI Ways of Understanding Nature and conventional science use reasoning AND other ways of knowing to learn about the natural world. For example, conventional science also incorporates intuition as a way of knowing.

Action Project Example: Ron Brent School BC

*45 storm drains painted in the Ron Brent Community

*at least 200 houses received flyers about the painted fish on their storm drains

*54 salmon painted and given for Father's Day

* Our schools Aboriginal Youth Care workers were part of the salmon painting process as we used Westcoast art designs and the traditional 3 colors (red, black and white) – these are also highly connected to our school – our symbol is a raven in the traditional Westcoast art and in those colors.

Other ways of knowing in conventional science and other sciences from around the world

The following are some famous examples of the importance of intuition in conventional science:

- "In an attempt to gauge the role of intuition in Eurocentric science Marton et al (1994) reviewed interviews with 93 Nobel laureates in science and medicine for the years 1970-1986. Of the 83 Nobel laureates who responded to the question 'Do you believe in scientific intuition?', 72 responded affirmatively. 40 laureates 'implied that scientific intuition represents a process radically different from normal logical reasoning processes."[xxxiii]
- Almost all of the Nobel laureates who said they believe in and/or use intuition as a way

of learning seemed to agree that conventional science needs to explore and develop the area of scientific intuition more.[xxxiv]

- Some famous and dramatic examples of the use of intuition in conventional science include Einstein's discovery of the theory of relativity, Darwin's realization of the theory of evolution, when "Archimedes [found] the principle of displacement in the bath...and Poincaré's realization in the very act of stepping on a bus—that his 'fuchsian functions' were identical to those of non-Euclidean geometry'.[xxxv]
- Famous examples of intuitional ***dreams*** in conventional science include Kerkule's dream of the snake biting its tail that led him to 'see' the benzene ring and Mendeleev's dream in which he saw the periodic table of the elements.[xxxvi]

Other ways of knowing in other cultures

- "Islamic science incorporates many ways of knowing. The Islamic concept of knowledge, *ilm*, incorporates almost every form of knowledge from pure observation to the highest metaphysics. Thus *ilm* can be acquired from revelation as well as reason, from observation as well as intuition, from tradition as well as theoretical speculation."[xxxvii]

- Some Nations in Africa incorporate spirituality in their science.[xxxviii]

Why Include Traditional FNMI Ways of Understanding Nature in Your Teaching?

Figure 9 - Source livingwatersmart.ca

It is important to include Traditional FNMI Ways of Understanding Nature in your teaching because it provides students with an important opportunity to develop and expand their critical analytical skills and cultivate an authentic respect for different ways of understanding the world, different ways of learning, and different ways of being. Conventional science has many of us in the habit of dualistic thinking (i.e. something is either right or wrong). It is important to remember that the point of including Traditional FNMI Ways of Understanding Nature in one's program is ***not*** for the purpose of deciding which is the best approach to learning about the world around us.[8] The point is to cultivate an authentic respect for different ways of understanding the world, different ways of learning, different ways of being, etc.

Including learning experiences that help young people appreciate *Traditional FNMI Ways of Understanding Nature* is important because:

- It can help FNMI students feel their cultures are respected and give them a sense of inclusion.
- It honours and encourages different learning styles in a real and meaningful way.
- Traditional FNMI Ways of Understanding Nature provide important knowledge about our world and Mother Earth.
- Examples of knowledge gained from scientific approaches other than conventional science help students to think critically about the benefits and limitations of conventional science and the way Western culture comes to know things. Concrete examples of alternative understandings of science and the natural world can provide young people with authentic opportunities to ***practise*** their critical thinking skills.
- The holistic approach of *Traditional FNMI Ways of Understanding Nature* can help us to question some aspects of conventional science, for example *mechanism.* Mechanism is the belief that all things can be broken down into individual, understandable, non-related parts. For example, the belief that if we understand the smaller and smaller parts of the physical world, we will have a better and perhaps thorough understanding of the whole world.

> *"Critics of the mechanistic paradigm do not suggest that it is wrong; only that it has a very limited scope and usefulness and that, taken beyond those limits, it can have adverse, even disastrous, consequences. The orientation of [Western] culture towards analysis and reductionism, objectivity and the exploitation of a machine-like physical world has yielded enormous technological advances. It is a good orientation for making cars and putting human beings on the moon. It is a dangerous orientation, however, if applied comprehensively and monopolistically to the sum total of human activity and experience." xxxix*

[8] For an exploration of why we believe we should avoid debates, please see Appendix C.

How to Share and Include Traditional FNMI Ways of Understanding Nature

- Be explicit about and use language that shows young people that:
  - Traditional FNMI Ways of Understanding Nature, such as the underlying themes and knowledge transmitted through traditional FNMI stories, and findings by conventional science are equally likely to be true, partially true or not true.
  - FNMI knowledge about the natural world is not static and is not simply a relic from 'long ago.' It is a constantly changing, evolving body of knowledge that continues to be used today by FNMI and conventional science practitioners around the world.
- Provide young people with opportunities to study examples of conventional science that are now deemed to be erroneous/currently contentious. This may aid discussions about the socio-political aspects of conventional science. Students should be exposed to the idea that: sources of funding, political interests, egos, gender, race, tradition, and seniority all play a part in determining what knowledge gets accepted and promoted by the Western scientific establishment and what does not.[xl] A good example of this is the evolution of debates around climate science and climate change.
- Provide examples of Traditional FNMI Ways of Understanding Nature that have:
  - Not been corroborated by conventional science.
  - Been corroborated by conventional science.
    - For example, Inuit observations related to climate change
      - See http://mother-earth-journal.com/2010/04/23/scientific-weather-meets-inuit-knowledge/
- In Step Three of the Action Process ("*Build Understanding/Moving Toward Coming to Know*")
  - Look for traditional stories about the issue/concept that your students are interested in.
  - Invite Elders or traditional teachers to come in to talk about the issue/concept.
  - Provide experiences where students can:
    - Directly experience and observe the natural world.
    - Use the arts to reflect on their relationship with the natural world. For example, introduce your students to the works of:
      - Alex Janvier
      - Blake Debassige
      - Michael Robinson
      - Brian Jungen
      - Daphne Odjig
      - Norval Morrisseau

Figure 13 - Michael Robinson

Figure 12 - Alex Janiver

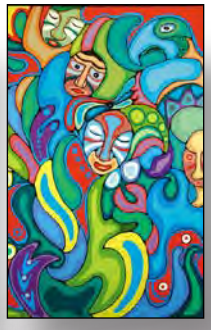


Figure 11 - Daphne Odjig

Figure 10 - Norval Morrisseau

F. Respectful Communication and Collaboration

Choosing words carefully, trying to understand someone else's choices, or finding the appropriate way to do something often takes a little more time but is worth the benefits. Mindful communication is a good step on the road to sustainability and respect. It models the importance of respecting others. It builds bridges that may be helpful in solving problems in the future.

Please consider the suggestions below to help you on your journey toward communicating even more respectfully with people from other cultures.

> "Our perceptions of the ways others think and act depend on our cultural perspective, which depends, in part, on our understanding that cultural differences do exist among groups. Equally important is the ability to recognize the vast diversity within cultural groups. Without such a recognition, we run the risk of stereotyping people."
>
> – Chamberlain 2005, p. 197 as quoted in OUR WORDS, OUR WAYS © Alberta Education p.22

Learn Some Words in the Language

As in all places, knowing and using a few simple phrases in the local language is a powerful way to communicate your respect for a culture.

Acknowledge the First Nation on Whose Traditional Territory You are Working

Make an effort to find out on which First Nation's traditional territory your class or program is located. It may be helpful to:

- Ask your students.
- Search on the Internet—for example, search 'map of First Nations territories Ontario'.
- Each province/territory in Canada has a Federation of Indian/Aboriginal Friendship Centres. Call and ask for help.

Learn about Traditional Protocols

- First Nation people traditionally deliberate in how they articulate themselves in terms of both what they say and how they say it. Both the verbal and the non-verbal communication is important, as is speaking truthfully, from the heart and listening from the heart. It is equally important for non-FNMI peoples to put attention towards how they articulate themselves, including not saying things that are untrue or that they will not follow through on.
- For many First Nation cultures it is important to thank the habitat for having you on the land where you are working. This can include thanking the animals, birds, plants and insects. See Respect – The Words That Come Before All Else on page 49.

Approach Elders Respectfully

Elders are people of great esteem in First Nations, Métis and Inuit communities. They are consulted for their knowledge of traditions, history, laws, culture and/or healing, and their ability to help maintain balance in the community. Different communities have different ways of selecting who is an Elder. Generally, they are selected based on their dedication to teaching and volunteer work in the community, and recognition as an Elder by other Elders. Age is not necessarily a requirement for being an Elder, which means that a person who is not elderly could be an Elder and someone who is elderly (i.e. a senior citizen) or a Traditional Teacher may not be an Elder. The term Senator is sometimes used by Métis people to refer to Elders.

Below are some things to consider when approaching an Elder for help.

- In many First Nations and Métis cultures, tobacco is offered to Elders, Senators and Traditional Teachers when asking them for help. Tobacco is a sacred medicine that creates a spiritual contract between the person who offers it and the recipient. It also helps Elders to seek guidance from the Spirit world regarding what the person offering the tobacco has asked for help about.
  - One way to offer tobacco to an Elder is to place the tobacco in a square of red cloth, twisted into a bundle, and tie it with string or a piece of red cloth. The tobacco is generally held in your left hand—your heart hand—when you offer it to the Elder.
  - In the modern context, where many conversations start over the phone or by email, it is not always possible to offer an Elder or Traditional Teacher tobacco when you ask them to come and speak with your class or youth program. Do not worry, you can just explain that you appreciate their help and would like to offer them tobacco as soon as you see them in person. Alternatively, you can offer to send the Elder or Traditional Teacher the tobacco in the mail.
  - Traditional tobacco may be purchased online. Do a search or consider contacting: http://www.beadeddreams.ca/ or http://motherearthtobacco.com

Figure 14 - Anishinaabe women arrive in Winnipeg on the 2011 Mother Earth Water Walk. Photo credit: David Lipnowki, Winnipeg Free Press

- When you speak with an Elder or Traditional Teacher, make sure to introduce yourself and then "state your request in a respectful way. Be clear, open and honest, and speak plainly. For example, 'We would be honoured if you would give a prayer at our next meeting'; 'I would be honoured to benefit from your advice and guidance.'; 'we would be honoured if you would visit our class to share your knowledge on… .' It is also important for the Elder to understand what kind of guidance you are requesting: spiritual advice or traditional

knowledge [or some other type of help]. If the Elder accepts the tobacco from you, he or she is accepting your invitation or request. The tobacco will then be offered to the Creator during a prayer for life and good health. If the Elder declines the tobacco, he or she is declining your invitation or request. The Elder may have prior commitments or be unable to help you."[xli]

- It is always important to offer some form of compensation to Elders and Traditional Teachers for the service they provide. Traditionally, the day-to-day needs of an Elder were taken care of by their community so that they would be free to offer their services to anyone in need. Unfortunately, today many Elders, , experience considerable financial hardship. A general rule for determining compensation for an Elder's services is to pay what you can afford and then add a little bit more. If you are unable to pay using money, try to provide some sort of gift as a means of showing that you respect the Elder's time and knowledge.
- Always try to arrange transportation or cover travel expenses.
- If you are new to this, you may consider asking an FNMI person to help you, but it is not necessary.

Action Project Example: Ecole Riverside—Grade 6

[The] issue is the disappearance of Sturgeon in our Lakes and Rivers in Northern Manitoba. Sturgeon have a cultural significance to our Aboriginal and northern populations... We raised four sturgeon from newborns and we [gave] them to Natural Resources to be released into the Burntwood River.

The sturgeon were provided by Manitoba Natural resources from the Grand Rapids hatchery. Manitoba Natural Resources [also] provided technical advice on equipment purchase, set-up and ongoing maintenance. They also provided us with a care kit that included chemicals and water condition indicators to help keep our fish alive. They also provided us with the food for the fish.

We took care of the Sturgeon by twice daily feeding them bloodworms, making sure their water was safe and balanced, changed when necessary, and that the filter was maintained. When the sturgeon showed signs of stress we gave them salt baths. When the water had an algae-bloom we changed the water (50% a day) for 2 weeks until the situation was solved.

We invited a fisheries expert to speak with us about Sturgeon. [The expert] spoke about sturgeon disappearance from our waters, and their cultural significance.

We were successful in that 100% of the fish we started the project with survived.

At our end of year release party,we invited our parents to come to a pot-luck feast where we will celebrate our project and say goodbye to our fish.

Because the sturgeon were located centrally in our school library, all of our 365 students were able to see the fish grow, talk to the project lead students when they were feeding the fish and maintaining the tank. Parents also were interested in the project and other visitors to our school were usually provided with a tour of our Sturgeon project.

Consider Cultural Differences in Communication Styles

Of course, being equal does not mean being the same. It is important to consider how people from different cultural backgrounds may differ so that you can prepare yourself to be open, flexible, and forgiving, as necessary. The following common areas in which cultures differ are from the Alberta Education guide, *Our Words, Our Ways (p. 22)*:

Communication styles

Within different Aboriginal communities, individuals may verbally or nonverbally acknowledge what is said, for example, by nodding or saying "yes" or "ummhmm." This may simply be recognition of a person's right to speak and to share ideas or opinions. It does not necessarily signal agreement with the idea or opinion.

Attitudes towards conflict

In some cultures, conflict is seen as a positive opportunity to work out differences, while in others it is something to be avoided because it is demeaning or embarrassing. Survival in small traditional Aboriginal communities depended, in part, on the ability of their members to work together. In many Aboriginal cultures, direct confrontation was avoided in order to maintain cooperative relations. Instead, a more indirect approach was often taken, for example, by telling an individual a story with a lesson. Teachers report that their Aboriginal students may avoid conflict by quietly leaving the school or the community for a time.

Approaches to completing tasks

Approaches to tasks vary from culture to culture. In some cultures, people get to know each other through the work rather than taking time to establish relationships before the work begins. Different concepts of time may affect task completion. In Aboriginal communities, individuals tend to take the time to greet each other and establish a relationship before they begin to work. This time of establishing a relationship is considered a necessary part of addressing the task. Different communities have different protocols for introductions and approaching others, gathering information, and working with others. It is important to ask about and follow the established protocol for the community. Traditional Aboriginal education emphasizes contextual and meaningful learning. Thus, educational activities need to be relevant to the daily activities of the students. If they do not see a clear and immediate connection to their world, then it is likely that other activities will take precedence over schoolwork. By taking the time to establish a strong relationship with students, teachers increase the likelihood students will give higher priority to the tasks teachers assign.

Decision-making styles

In some cultures, decisions are made by a leader; in others, they are made by delegation or by consensus. In many Aboriginal families, decisions are made collaboratively rather than by one individual. This allows everyone who is affected by the decision to have an opportunity for input. Rather than making decisions on the spot, time is often taken for reflection. Women play an important role in making key decisions. In many traditional Aboriginal societies, women were engaged in prominent leadership roles. They participated actively in political and cultural life,

either publicly or behind the scenes. They had considerable influence on family affairs, especially as they grew older and were seen as women of wisdom. Although colonialism disrupted cultural practices and introduced discrimination against women, Aboriginal women are once again becoming an increasingly strong voice on both the political and home fronts. When making decisions or solving problems, Aboriginal parents and students may consult with supportive family or community members. Reflecting this collaborative approach, decisions about student learning should be made using a consensus model, with parents and students as key partners in the process.

Attitudes towards openness in personal matters

In some cultural groups, it is appropriate to be open about emotions, about reasons behind a conflict and about personal information, as a way of building trust. In other cultures, trust must be developed before personal information can be shared. People's degree of openness in personal matters will vary from community to community and from individual to individual. Developing a relationship built on trust and acceptance is paramount when working with Aboriginal students and families. Knowing and respecting the situations faced by many Aboriginal students and families will go a long way in developing this trust. When trust is established, students and their families will relate in a more meaningful and personal way with teachers and other school personnel.

In order to ensure that education is "culturally relevant" for Aboriginal students, it is important for educators to do more than add Aboriginal perspectives, voices and stories to the curriculum. Rather, it is necessary also to understand ways in which dominant culture teachers' and students' perceptions of culturally-based interaction patterns are different from, and perhaps in dissonance with, those of Aboriginal community members." (Piquemal and Kouritzin, p.33 as quoted in CCL Promising Practices p. 17)

A Sustainable Future

This guide has been created to help all of us work toward a sustainable way of living here on Turtle Island. It is important to understand Turtle Island is the name many FNMI groups give to the continent conventionally referred to as North America.

> *"Indigenous peoples are caretakers of Mother Earth and realize and respect her gifts of water, air and fire. Indigenous peoples' have a special relationship with the Earth and all living things in it. This relationship is based on a profound spiritual connection to Mother Earth that guide[s] Indigenous peoples to practice reverence, humility and reciprocity. It is also based on the subsistence needs and values extending back thousands of years. Hunting, gathering, and fishing to secure food includes harvesting food for self, family, the elderly, widows, the community, and for ceremonial purposes. Everything is taken and used with the understanding that we take only what we need, and we must use great care and be aware of how we take and how much of it so that future generations will not be put in peril."* [xlii]

A sustainable lifestyle is one which:

- Values cultural diversity and the importance of understanding and respecting each other
- Respects other life forms and acknowledged that everything on Mother Earth has a spirit
- Works toward some shared values amongst the members of the community. Teaches about an individual's roles and responsibilities to their community
- Makes decisions and plans in a manner that includes the perspectives from the social, health, economic and environmental sectors of the community
- Makes best use of local efforts and resources
- Uses renewable sources of energy
- Fosters activities which use materials in continuous cycles
- Does not compromise the sustainability of other communities (human or non-human)
- Does not compromise the sustainability of future generations
- Has a stable, dependable and diversified economic base
- Provides a range of opportunities for rewarding work
- Satisfies the basic needs of every one of its members including the opportunity to fill her or his potential.[xliii]

Action Project Example

My task was to drive down to where the Mother Earth Water Walkers were – approximately one hour away and to bring them to Sudbury in time for our noon press conference and BBQ. As I drove in with the water walkers, there were cheers of joy and a drumming for our welcoming. We sang honour songs for the walkers, and said a speech about the importance of what they did. We feasted and many pictures were taken. Some were interviewed by the press about the project.

The next day, many Sudburians met with the Mother Earth Water Walkers to walk with them through our city. At dinner time, they had finally reached the reserve where we hosted a traditional feast for them. The chief of Atikameksheng Anishnaabek said a few words of welcoming and we had a smudging ceremony. Gifts were then given to the walkers.

They're called the water walkers. They wake up at 3 a.m., get on the road at 3:30 and walk. And walk and walk and walk. On average, the group of six or so...walk for 12 to 15 hours a day, with a break at noon to change their socks and rub some powder on their feet. Their goal is simple, to collect water from the Pacific Ocean, Atlantic Ocean, Gulf of Mexico and the Hudson Bay. The walkers, most of whom are from the Anishinaabe Aboriginal community, have four groups, and will all meet up in Bad River, Wisconsin, to perform a spiritual ceremony. The walk, called the Mother Earth Water Walk, is a way to promote water conservation and raise awareness about water pollution.

Josephine Mandamin started the water walk because of a chief's prophesy."(The chief prophesized) that by 2030, an ounce of water will cost as much as (an ounce of) gold if we continue with our negligence.

That's an if," she said. Mandamin, who passed through Sudbury on Saturday with her team of walkers, is determined to stop that. "This is what I'm doing," she said. "If you don't have water, you don't have life in any city. If it's polluted, you can't drink it.

Mandamin and her supporters believe that women are the keepers of the water. It's their job to protect this natural resource. Natalie Neganegijig knows this well. "I know that our water's at risk. I guess there's lots of pollution and exploitation of it," said Neganegijig, president of the Indigenous student circle at Laurentian University. "My mom was one of the first water walkers. She walked Lake Superior," she said. Neganegijig understands the importance of water conservation. "(Water) is the gift of life. Without water we can't be healthy, and I guess it's the women's gift," she said.

Isadora Bebamash, one of many to greet Mandamin in Sudbury, takes her role seriously. "Woman are the life givers, and that's when life starts. It's in the womb," said Bebamash, who sang with other women to show her support for the water walk.

"Without water, there can be no life. We want to support Josephine."

Written by Melanie Smits Aboriginal Education Consultant. Conseil Scolaire Catholique du Nouvel-Ontario

G. Interconnectedness

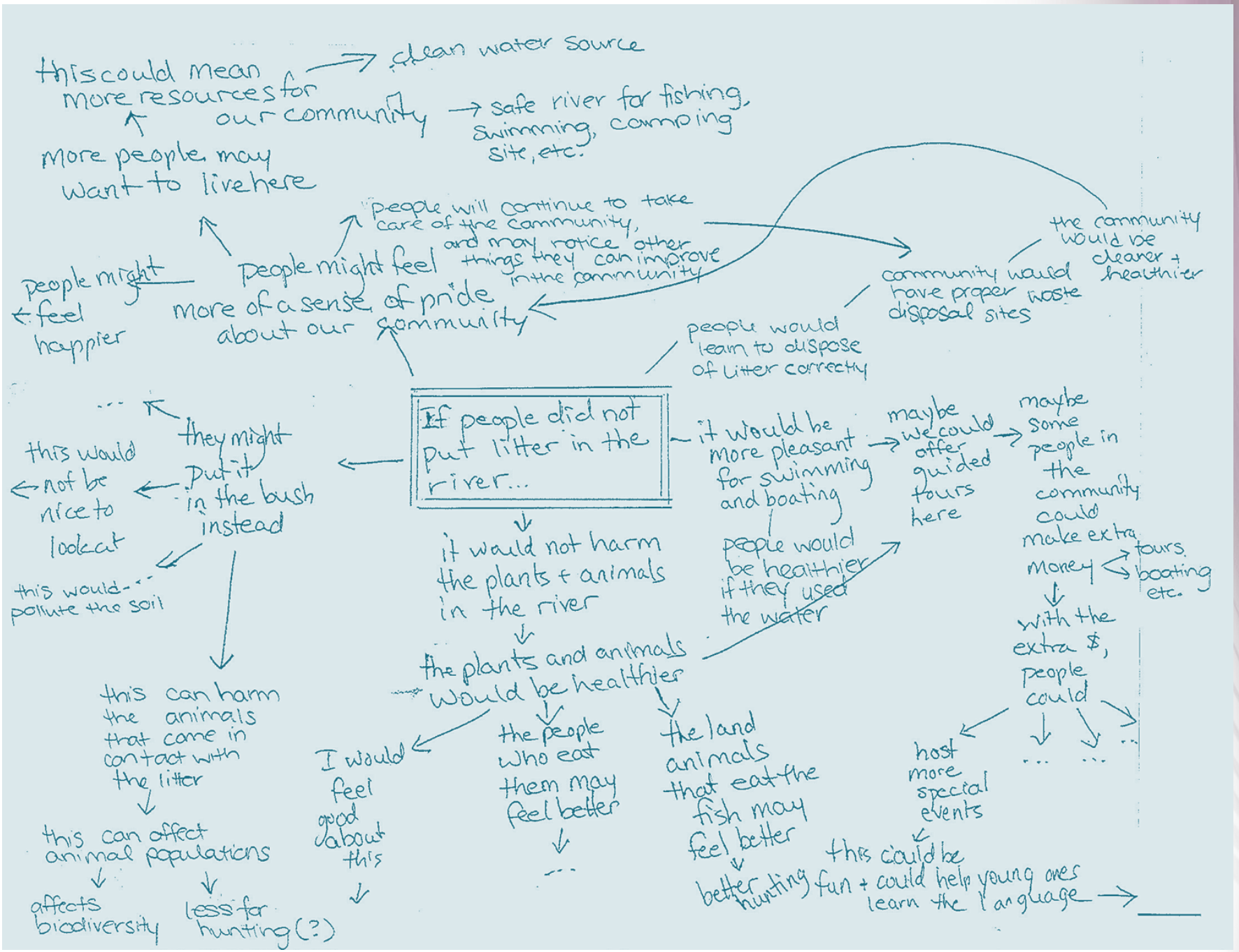
Conventional science has overtime grown to respect the importance of concepts of interconnectedness. Science teachers who are teaching today were probably taught about 'food ***chains***'—linear systems with a beginning an end but no discussion about how the top predator is related to decomposers. Those same science teachers probably now teach about food ***webs***—complex and deeply interconnected systems that involve nutrient cycles. As a society, we still sometimes seem to make decisions based on a mechanistic understanding of the world—we introduce new species to an area in the hope that it will help us with one problem, with the hope that it will not upset the ecosystem (and yet we know that somehow the ripples in the web will impact us in surprising ways). However, conventional science, led by ecology, is working its way toward an appreciation of interconnectedness.

> A relationship framework sees humans as intrinsically interdependent on one another, as well as on other life on the planet and beyond. What we think, say and do impacts, directly and indirectly, everything and everyone else — and these in turn affect us. We are further impacted by ancestors, and will ourselves impact generations to come. By virtue of being human, we are members of a community of living, non-living, once-living and soon-to-be-living entities. We need others to survive — not only to provide the sustenance that ensures our physical well-being, but also to provide love in all of its emotional and physical manifestations. We further need a healthy concept of self, which implies limits, roles and responsibilities.
> Zainab Amadahy

Traditional First Nations, Métis, Inuit (FNMI) worldviews embrace interconnectedness. The Medicine Wheel teaches us about the deeply interconnected aspects of ourselves—the spiritual, emotional, physical, and mental. Traditional FNMI understandings of nature are based on a relational view of the world with no distinction between animate and inanimate beings in.

One of the objectives of the LSF/JGI Action Project Process is to help young people to understand the interconnected nature of the issues in our communities. Almost all issues have dimensions that involve: human physical health, human mental health, justice, education, the natural environment, economics; and any and every other aspect of our communities. FNMI Ways of Coming to Know provide a vibrant framework for exploring and understanding concepts of interconnectedness. The examples of concepts maps below are included to generally illustrate this interconnectedness. They may also be used as examples to help young people to prepare to do the "What are the Consequences of That?" activity found on page 79. The responses on the concept maps are not intended to be exhaustive; they are simply provided to illustrate some of the directions in which a concept map could travel.

If people did not put hazardous waste in the garbage...
This might have positive consequences for animals' health
Plants health
This could have positive consequences for human health
This might get People thinking about other things they can do to be kind to Mother Earth
this might make people feel good
the community might organize a special hazardous waste depot
this might create a job for someone
this might educate the community on the importance of properly disposing of hog waste.
hazardous chemicals would not seep into the ground water
hazardous chemicals would not get into the rivers and lakes
They might dump their hazardous waste in the bush
this could be harmful to humans, animals, plants


this could mean more resources for our community
clean water source
safe river for fishing, swimming, camping site, etc.
more people may want to live here
people might feel more of a sense of pride about our community
people might ← feel happier
people will continue to take care of the community, and may notice other things they can improve in the community
the community would be cleaner + healthier
community would have proper waste disposal sites
people would learn to dispose of litter correctly
If people did not put litter in the river...
it would not harm the plants + animals in the river
they might put it in the bush instead
this would not be nice to look at
this would pollute the soil
this can harm the animals that come in contact with the litter
this can affect animal populations
affects biodiversity
less for hunting (?)
the plants and animals would be healthier
I would feel good about this
the people who eat them may feel better
the land animals that eat the fish may feel better
better hunting
it would be more pleasant for swimming and boating
people would be healthier if they used the water
maybe we could offer guided tours here
maybe some people in the community could make extra money
tours, boating etc.
with the extra $, people could
host more special events
this could be fun + could help young ones learn the language

Why Focus on Water?

The *Jane Goodall Institute* and *Learning for a Sustainable Future* have chosen water as the focus of this guide for many reasons including:

> "As Indigenous Peoples, we recognize, honour and respect Water as a sacred and powerful gift from the Creator. Water, the first living spirit on this earth, gives life to all creation. Water, powerful and pristine, is the lifeblood that sustains life for all peoples, lands and creation. We know that by listening to the songs of the Water, all creation will continue to breathe. Our knowledge, laws and ways of life teach us to be responsible at all times in caring for this sacred gift that connects all life." - WATER IS LIFE: PROTECT WATER NOW! Indigenous Declaration on Water July 8th, 2001 Musqueam Territory

- Many FNMI communities and other communities in Canada are faced with water issues everyday. Many FNMI communities do not have access to potable water.
- Water is sacred.
    - The importance and sacredness of water, and the Spirit of the water, can be seen in Creation Stories and legends from around the world, including those of: Anishinaabe, Haudenosaunee, Inuit, Aztec, Egyptian and Ugandan peoples. First Nation's teachings about the four scared colours tell us about the importance of the other peoples who share Mother Earth with us.
- Roughly 70% of the Earth's surface is covered with water, but most of this is salt water. Only 3% is fresh water and most of that is frozen in polar ice caps and glaciers. Less than 1% of all the water on Earth is "usable water," the water that we depend on for our needs.[xliv]
- Just about every living thing relies upon water.
- Our bodies are 66% water and rely upon water to live.
- We play in water.
- Many modern manufacturing processes rely upon water.
- Our food relies upon water to grow.

Despite all of this, we are not being careful with our sacred resource. For example, half of the world's wetlands have been lost since 1900.[xlv] In 2000, 57 percent of Canadians were served by wastewater treatment plants, compared with 74 percent of Americans, 86.5 percent of Germans, and 99 percent of Swedes.[xlvi]

See Appendix D in this guide for an easy-to-use chart that indicates how pollutants affect our waterways.

For more facts about Water, see the Safe Drinking Water Foundation's fact sheet at: http://www.safewater.org/PDFS/resourcesknowthefacts/Facts_Statistics_Did_Know.pdf

H. Traditional FNMI Stories and Teachings

Creation stories teach about how to live in right relation with the other beings who share this place with us. Many of them also illustrate the profound importance of water to creation. This guide provides examples of local stories from First Nation peoples in Canada and tribes in Uganda. Although the stories from Uganda are not creation stories, readers will see similarities in the important role water plays in these communities and its spiritual powers. JGI will be keeping a bank of traditional stories which involve water on our website at rootsandshoots.ca If you have a story you would like to share, please email us at roots_shoots@janegoodall.ca and we will include them in this bank.

Respect – The Words that Come Before all Else[xlvii]

Haudenosaunee Opening Address

We always begin with the Thanksgiving Address. The Iroquois nations, when they have meetings or they have ceremonies or they have social dances or any big thing, always do what they call Ohén:ton Karihwatéhkwen. In English, some people call it the Opening Prayer, probably for a lack of a better way to say it. Some people call it the Thanksgiving Address. Others call it the Greetings. But in my language, Mohawk, this is what we call it - Ohén:ton Karihwatéhkwen. A more literal translation would be what we say before we do anything important. It starts this way:

Our Creator made the whole world, the whole universe. And he made everything that grows, every animal and every bird and every kind of water – everything. And when he finished that, then the last ones he made were the human beings. In fact, of all the human beings, our elder people say the Aboriginal people were the very last ones to get made. And then he put us here on this earth. And then when he put us here, he didn't just throw us here and say, "You're on your own. You do what you can do." He didn't do that.

When he let us be here at the beginning of the world, when it was new, he instructed us about how the world goes, how it operates, and how you live here. He told us that. And that's what we call Ohén:ton Karihwatéhkwen. It's what we say before we do anything important, what you have to observe before any important events. And our Creator gave us this miraculous life from ever since we are born until wherever we are traveling today in our life's path. And so we say to our Creator, "Thank you for the privilege that I can walk again today. And our mind is agreed." And if it is, you will say, "Huh."

And then the Creator said that whenever you come together the first thing you have to recognize is the different human life: your family, your village, your community. And so what we do is we give our kindness and our love to one another and we say thank you that we will share these moments today with each other. And our mind is again agreed.

The Creator made the earth. And when he made the earth, the Creator said that the earth is going to be a woman. And not just any woman, she's going to be the mother of all women, of all life forms. And she will have the powers to give life to the trees and the birds, to the bears, to the deer, to the humans. That's why she's exceptional.

And when our Mother Earth has given life and birth, then the big job begins. Now she has to nourish us from her body with the food that we need to live. What a job that woman does. And that's our Mother, the Earth. And as my elders suggest to us, she has never thrown us away, discarded us or abandoned us since the beginning of time. And so what we're going to do because of that is we will bring our minds together as one. What you and I will do is we will put our thankfulness one layer after another layer, here. And then we will take our greetings and make layers of it. And then you and I, who are the children of our Mother the Earth, will pick it up, and we'll carry it. And we say, "Mother Earth, today, we who are your children, salute you with love." And we say, "Thank you because our life is nourished again. Mother Earth, thank you, with love." And our mind is agreed.

And then the next thing that happened after our Creator made Mother Earth is that he made the water that is in the creeks and the streams and the lakes. And when he did this, he said that water isn't just water, it is sacred. Every water is sacred. Every water is holy everywhere in the whole world. He said, "The water has spirit, it's got soul, it's got life in it."

And he talked to the water. He said, "And your job, Water, is to move, to look for the humans, look for the birds, look for the bears, look for the deer." And that's why the water is moving. It's doing its job, going looking around for the live. And then it goes into the big river and then into the big ocean and then back into the clouds, around and around, refreshing because it's alive. It's refreshing because it gives life. The waters quench our thirst and they clean and purify our body so that we may have a healthy, good life.

And then when you listen to the oceans and the big lakes, you hear the heartbeat of the water. You see that it is living. The big waves come, and they hit Mother Earth. It is the same thing as what is going on in your heart. It is beating with a rhythm because it is living. And so we will put layers of thanks, greetings and love in our heart. And we send it to the Spirit of the Waters of the World. And we say, "We, who are your human relatives, thank you for the quenching of our thirst yesterday and today." And on behalf of our children, we say, with love, thank you to the Water. And our mind is agreed.

And then another thing that our Creator did is he put in the water, the fish, and all kinds of water creatures. And he told those fish what their job is going to be. It is that whenever the bear or the human needs nourishment, they will sacrifice their life for us but only when we are hungry. No more. And also he said, if anything falls in the water, the fish are going to grab it, eat it up right away, keep it clean – that water. So those fish are doing their job. Even if it is hard today, because of the pollution, those fish never give up. They just keep on trying to fulfill what the Creator told them to do. And so what we will do is with one mind, we send our thanks, greetings, and our love to all the Fish and the Water Life of the Waters of the World. And our mind, again, is agreed.

And then our Creator, what he did after that is he planted medicine next to the river and next to the ponds and next to the lakes. And then he planted medicine in the big hills and the valleys and in the big fields. And he said, "For every sickness that there is known to the animals and the humans and the birds, there is a medicine or two or three that can jointly or singularly take away all the sickness." And so to the Medicines of the World who patiently wait for us to doctor our sick,

we say thank you for staying with us and for doctoring those of us that you do doctor. To the Medicines of the World, with love, we thank you today. And our mind is agreed.

And then the Creator did another thing. He gave us the food that is in the garden. There are all kinds of food in there, but he chose three to be the leaders. Those ones are the corn and the beans and the squash. We, the Iroquois, call them the Three Sisters. The turnips, the carrots – they are all under their leadership. And so I ask us people to put in front of us our thanks and greetings and love. And then we send it to that Corn and to the Beans and to the Squashes and all the Vegetables that grew on vines and to all the other things that grow. And so the Gardens of the World, we say thank you with love. And our mind is agreed.

And then what our Creator did is he made berries. And when he made the berries, he made lots of different kinds of them. For instance, the leader of them all is the strawberry because once the snow from winter goes away, it's the first berry to flower. And because it is the first one to wake up, it was chosen to become the leader of all the berry world. And we call the strawberry, because it looks like a heart, the Big Medicine. And so I ask that all of us put our minds together as one, and we send our thanks and our greetings and our love to the Strawberries and to all of the Berry World because they sweeten our life. They taste so good. We say thank you to them. And our mind is agreed.

And then our creator did another thing. He made the trees, all kinds of tress. And then he chose one – they call it the maple tree. And he said, "Once the snow starts to melt, that maple tree is the first one that is going to wake up. Its blood is going to start to flow. And that sap of the maple tree, you can drink that. It too becomes a great medicine for you. And then you cook it, that sap, and it turns into a sweet syrup. You can even make sugar out of it. And then shortly after all the other trees wake up and give us apples, peaches, pears, cherries. And then from those trees also we use fallen limbs, and we chop them up. Then when it gets cold, we can make warm fires in the woodstove.

And then those trees make the oxygen in the air we breathe, the oxygen that you and I need every day. And the buffalo need it, and the deer need it, and the birds need it. And if those trees were to stop being trees, they would no longer make oxygen. And then you and I and all life would suffocate, there would be no more life. So you see, the tree is not just a tree. The tree is one of the sources of our life. And we need to stand by them. And we need to watch over them and protect them as much as we can. For they do that for us. And so we shall become of one mind, and what we do is put many thanks and greetings and love again in front of us. As it piles up in a big heap, you and I will grab its perimeters, and we will throw it to the east, to the north and the west and to the south so that every tree will hear and feel our hello and feel our thankfulness and feel our compassion. And then they will be so touched by that that they will grow again another year. And we and our families will live again. And so to the Trees of the World, and their leader the Maple, with love, we say thank you. And our mind is agreed.

And then in those trees, in the forest, our creator put the animals. The deer, when we need food for our ceremonies, they will give their lives. From them, from the skin of their hides, we can make shoes. And from those deer, there are medicine societies that help to heal the sick. To all animals we say thank you. And our mind is agreed.

And the next ones are the birds. And everything was done, and the Creator made us, he did not want us to be sad in our life. The Creator did not want boredom or lonesomeness to come into our lives, although it will now and then, but not to find a home in our minds. The Creator likes to see us smile. He likes it when we joke. Laughter is called “a big medicine”. And to guarantee that that should be the way it is – laughter and dance and song – the Creator made the robins and chickadees, the sparrows and the mourning dove, every kind of bird. And he put beautiful coloured feathers on their bodies. So they look pretty. And then he took those birds, and he threw them everywhere in the air. And he said to them, “You will zoom by where the men and women walk on the earth, with all your bright, beautiful colors. It will be nice to see”.

And then he gathered them together, and he had a big meeting with them. And he gave them their songs and the rhythms of them, the way they are. And when he finished, he said, “Now your job is to make sure that the deer and bears and the moose and the elks and the humans do not get lonesome, and do not get bored with life. So every morning before the sun shows his face, just when the dawn light comes and it is still a little dark, I want all of your birds to get up and start to sing the songs that bring the miraculous new day, every day.” He said, “You will welcome the miraculous day and life.” And so everyday those birds were flying and those birds were singing the songs of joy of life. And so what we will do, the people, is we shall become of one mind, and we will put thanks, greetings, love, and kindness together in one big pile. And then we will grab it at the edges and throw it to the north and the west and the south and east, so that every Bird that sang this morning will hear our thanks. They will hear our kindness. And they will sing again tomorrow because they know we are going to say thank you to them. And they are so happy to do it because we said thank you. And so to the Birds of the World, for the songs that they sang this morning, with love, we salute you. And our mind is agreed.

And then there are four winds in t he universe. They are coming from the north, south, east, and west. And those winds, some elders say, are two sets of twins. It is nice to hear it that way. It is a nice story. They say that Mother Earth got tired from giving birth. And so when our Mother Earth gets tired, they say that the wind of the north and the wind of east together, they try to help. They bring a white blanket of snow, and they cover her body so she can rest. And when she has rested sufficiently, the other two brothers from the south and the west, they take the white blanket of snow off. And the next thing you know is wall-to-wall, green carpet of grass all over Mother Earth. And flowers are popping up here and there of every color imaginable. And life is reborn.

And so the four sacred winds, they keep the balance so that life can go on with energy. If there is no air, they come and blow the strong breezes. They carry the stagnant air away and revitalize it so that it is fresh, what we breathe. And so those winds never rest. They are doing the job that the Creator told them to do. So we shall become of one mind again, and we will put thanks, greetings, and love right there. And we will throw it to the east, to the north, to the west, to the south. And we say, “Four Winds, thank you for brining the changing of the seasons so that there will be life.” And our mind again is agreed.

And then what our Creator did, this time up in the sky in the west, he put our Grandfathers, the Thunders. And so the Creator said to the Thunders, “Your job is to be the grandpa. And the people are going to be your grandchildren. And a good grandfather periodically comes to see his grandchildren. But when you go see your grandchildren, do not just go abruptly there. Always hit

your big drums, send your big thunder voice across the sky. Let them know you are coming so they can get ready to receive you." And so with oneness of mind, we are the grandchildren today, we put many thanks and many greetings and much love and compassion and kindness right in front of us. And then you and I, the grandchildren, will pick it up, all around the edges, and we will throw it high into the sky, especially to the west. And we will say, "Grandpa Thunder, thank you for all the work you did last summer. Thank you, we have food. Thank you, we have water to drink. Thank you, we can have water to bathe in and clean our bodies. Grandpa Thunder, with love, we thank you." And again, our mind is agreed.

And then there is another thing that our Creator did. They say he made two suns in the sky. And the one sun we call the daytime sun. They call him the Big Man. Some elders even say that the rays of the sun are like the hands of the Creator. And so you see how sacred it is, our life. And how privileged we are that the Creator touches each one of us. No matter that there are millions of us, that light surrounds every one of us simultaneously. And such is the power of our Creator. And so to the Sun, our Eldest Brother, we say thank you with love. And our mind is agreed.

And then there is a night time sun, our Grandmother. And her, she walks twenty-eight to thirty days on a single predictable path in the universe. That is what we see. And as she does this, they say, she orchestrates all the women of every nation. And so, on behalf of all the children that were born yesterday and last night and today, Grandma Moon, we say, thank you for allowing this good life. And our mind is agreed.

Grandmother Moon is a woman, and so she likes to get dolled up when she goes out at night. Every night, she has beautiful diamond earrings on her ears, hanging way down. And she has a diamond necklace every night. And she has all over her body beautiful diamonds. Those are the stars in the sky that surround her when she walks. And so to the Stars that beautify our Grandma Moon, we say thank you, and our mind is agreed.

And then of course we the humans were the last ones to be made of all Creation. We are last. If all we humans died, everything else would keep going. So we are the ones that are the most in need of help. And for that reason, The Creator made the Four Beings. They are four powers of the Sky World, of the universe world. Their job is to help the Creator keep the world going, keep life going. They have been assigned especially to babysit us because of that one fault we have, of not being able to tell the truth for what it is. And so, at various times in history, in various parts of the world, the different races have forgotten their teachings, neglected them. And when they have, fights have begun, and disruptions have come, and they have begun to kill each other in wars. They have thrown away the Creator's instructions for peace.

And so what our elders say to us is that whenever that happened, he would summon these Four Sacred Beings, these four powers, and one of them or jointly (usually one of them) would volunteer to be born as a human. He would be born as the Peacemaker for that region or for that particular people. He would remind them to go back and recover what they had given up that caused their wars and their disarray. And so to those Four Sacred Powers, the Peace Prophets of the World, we say thank you now on behalf of our people. And our mind is agreed.

And then there is our Creator. In your body, God is in there; the Creator is in there. And every life form that grows, the Creator is in there. And when the Creator finished everything, he said, "I did

not make a coliseum for you or an archival institute, a building for you to put all the philosophical or spiritual doctrines in. I did not write it in books or anything." He said, "The only thing I did is let you live on your Mother Earth. And everything you need is at your fingertips. Do not be greedy. Share. And if you do this, your life will be everlasting. But I want you to know, I wait every day for every woman, every man, and every child to take just a couple of minutes, a couple seconds and face me every day. And just say, 'My Creator, I thank you for this miraculous life. Thank you, Mother Earth.'"

And that is all that is necessary for us. There is no big cathedral. There is no Library of Congress that holds our knowledge. Just a simple word, thank you, a true word to the Creator, and there will be everlasting life. And so that is why we say the Ohén:ton Karihwatéhkwen. That is what comes before any important thing. Then we will be grounded for life.

And so to our Creator, I ask you and I to simultaneously spin out many layers of thankfulness and many layers of hellos and greetings and much kindness and love. And then what we will do is stand back at its perimeters, you and I, and grab it all at the edges, and throw it high into the universe. And say, 'Creator, our Maker, thank you for this wonderful life." And our mind is agreed.

Thou Shalt Honour Earth Mother

Honour Earth Mother by Basil Johnston

Long before the Anishinaubaek or other people were set upon the earth, and continuing to this day, birds, animals, insects and fish were abiding by certain principles.

Robins, as did their kin and kind, came and went as they pleased; they left their perches and returned when they pleased. No master commanded them where, when or how to build their nesting places. It was they, and no other, who decided where, when and how to carry out what Kitchi-Manitou had intended them to do. Robins are free, as are other creatures.

And who among the ravens, buffalo, ants contributed more to the earth, to their kin and neighbours, to creation? Who among the ravens is the blackest, swiftest, keenest of eye? Who among the buffalo scores and scars the earth more deeply? Whose hooves thunder more loudly than any other? Who among the ants carries the heavier burden? Or draws more sweat? Whose passing draws more tears? Do such questions arise among them? Do they fight about these matters? Does one life mean more than any other to Kitchi-Manitou? Does Kitchi-Manitou give more to some? Less to others? No! No one is more important than any other. They are all born equal, all have some purpose in furthering creation, Kitchi-Manitou's work.

There is not a bird, animal, insect, fish that is without a place where, with a mate, it will create new life and where it will serve its own needs in its own way, and where it will nourish its soul and spirit. Hawks build their nests in trees, badgers dens within the earth, and spiders their webs in dark recesses. The homes that hawks, badgers and spiders make for themselves belong to them and to their offspring, and so long as they need to dwell in one place and draw what they need to eat from the neighbourhood so long may they drive off intruders and trespassers from their homes.

Beating back invaders and raiders is the way that hawks, badgers and spiders proclaim ownership of their homes. "This is my home! Kitchi-Manitou has granted me this place as my home. I mean to keep what the Creator has given me."

All creatures, great and small, whether they be bears or bees, have the sense of ownership.

Every spring, even before the snow has melted, birds begin their return from their winter sanctuary somewhere in the south. They are filled with song and chant, warble and whistle from sunrise to sunset. They chant through snow, rain and cold winds. And for what purpose do they chant? They chant to proclaim their joy and thanksgiving to Kitchi-Manitou, to Mother Earth and to each other. Robins, bluebirds, sparrows are grateful for life, beauty, health, food, music, home, offspring. Each one thanks Kitchi-Manitou and Mother Earth in his own way, with his own song.

To our ancestors it was self evident that all creatures were born equal and free to come and go and fulfill their purposes as intended by Kitchi-Manitou. All were entitled to a place on this earth where they might raise their offspring and offer their thanksgiving to the Creator.

Kitchi-Manitou has done no less for men and women. The Creator has made us all equal, given us freedom to come and to go, a place to grow in spirit and nurture our dreams, and leave to talk to the manitous in our own way whenever it was meant to do so.

And so the Anishinaubaek came and went as they pleased, without having to ask permission of the chief or some master.

Men and women stood, sat, talked, walked, and worked with chiefs and leaders. They were equal.

Men and women had homes for to have them was an inborn need. They needed a place unto themselves and their mates where they could create new life and being, nurture the gifts that Kitchi-Manitou had bestowed upon them, and where they could be themselves and reflect upon the progress that they had made in their passage along the Path of Life and dwell upon the fulfillment of their dreams and duties.

For Anishinaubae men and women, home was and is “aeindauyaun,” a place that belongs to me and where I long to be. It’s a place where I can be myself and not disturb neighbours. The term “indauwin” comes from the same root as does “indiwin” which means culpability, accountability, mood, disposition. The good or evil that men and women did was understood to have been bred and nurtured in the home; and credit or blame assigned as deserved.

The owners of dwellings had no need to proclaim to their neighbours or the world that the wigwaum they occupied and the land that their home was settled on belong to them and to no other. Kitchi-Manitou endowed this sense of ownership into the hearts of all men and women. Only Kitchi-Manitou can endow such a sense in human beings; only Kitchi-Manitou can take back this sense, but doesn’t.

Our ancestors had everything to be thankful for: the land that Kitchi-Manitou had given them was beautiful and fertile. Its mountains glistened with snow; its valleys were lush with orchards; its forests echoed with the calls of birds and animals; rivers and lakes flashes silver with the forms of fish; its meadows were o’erspread with flowers. The land yielded harvest more than enough to feed all living creatures.

The land gave forth food in abundance; it also unfolded whatever men and women needed to understand to know about life and being. Every day, every season, every year something takes place that reflects some aspect of our world, our existence, our conduct, and our destiny. There is birth, growth, maturation, degeneration, death, regeneration and transformation. What a man or a woman gleans that adds to his or her understanding is revelation. The earth holds nothing back from those who open up their senses (except the next life).

Some glean more from their observations, others less, but each one in proportion to his talents. What one person understands of what he sees or hears is not to be belittled, demeaned, or ridiculed. For how is anyone to know for certain that he is right and another, wrong, it would be arrogant. Where differences in opinion occurred, men and women said Kitchi-Manitou has given me a different understanding.

By sharing their observations our ancestors increased and spread their knowledge. Storytellers would spin stories about creation, where the living came from, where the dead went; they told

stories about the Path of Life and how to remain on the right trail, and warned listeners what it was that caused people to lose their way and what they were to do to get back on the right trail.

What our ancestors found about the world was sacred; everything was sacred by virtue of its creation by Kitchi-Manitou, and everything was sacred because every form of life had an element of mystery. A deer, buffalo, bear, partridge having something called chechauk (soul) that holds flesh and spirit together. A tree, a blade of grass, a seed has this element. It is the breadth of life that Kitchi-Manitou has given to every being. It belongs to the creature receiving it and to Kitchi-Manitou who granted it. When a hunter needed to kill an animal or a bird or a fish for his family, he asked Kitchi-Manitou to grant him permission to take the life of his intended victim. On killing his quarry the hunter offered tobacco in thanksgiving to Kitchi-Manitou and words of regret to his victim. Life is sacred.

Our ancestors talked and chanted to Kitchi-Manitou, to the grandfathers and grandmothers, to the spirits of the birds, animals, insects and fish to thank them for benefits receive or to beseech Kitchi-Manitou to help them control selfishness, dear, jealousy, vengeance, pride and other shortcomings, and to grant them instead of selflessness, courage, health, goodwill, good dreams, kindness, humour, a forgiving spirit and wisdom.

Men and women talked to Kitch-Manitou, Earth Mother (Mizzu-kummik-quae) and other manitous, alone, using their own words. Men and women talked to the Creator, Earth Mother, wherever and whenever they felt the need to say something or to ask for some favour. They didn't need a holy person to guide them, nor did they recite prayers from memory. No; they spoke freely from their hearts.

They talked to Earth mother as they would another person, as if the earth could hear and understand and talk back. They told her that she was beautiful, and thanked her for her bounty. Each spring they asked her to be as bounteous as in the past, and beseeched the Thunderbirds to keep Earth Mother fresh and fertile. That every being was indebted to Earth Mother was in their minds.

The pipe of peace ceremony exemplified the regard that our ancestors had for Earth Mother. In the ceremony the celebrant offered the first whiff of tobacco smoke to Kitch-Manitou and the next to Earth Mother. The offerings of smoke were expressions of honour, respect, love, gratitude. If the pipe smoking ceremony were a series of acts depicting commandments, the second whiff to the Earth would decree "Thou shalt honour Earth Mother."

Kitagata Hot Springs-Uganda

Kitagata natural hot springs are situated in Bushenyi district about 350 kms west of Kampala, the capital city of Uganda. The Hot springs, Ekitagata, where the township and the administrative area derive their name from, provide one of the nice attractions to any visitor to Kitagata in Bushenyi district. Two big springs lie adjacent to each other and have water to temperatures as hot as 80 degrees centigrade. The hot springs have great historical and cultural importance to the local people as one was used by the King of Ankole and hence referred to locally as 'Ekyomugabe', the Kings Spring while the other adjacent one is more known for its medicinal value and referred to as Mulago in reference to Uganda's national referral hospital. Kitagata hot springs are therefore well known for their curative waters. Patients from as far as 100 kms, flock the springs to soak themselves in the spring waters to heal them. They lie for hours in the hot water or pour it over open festering wounds, while other patients drink the sulphur rich waters for cure from rheumatism, arthritis, hypertension, scabies and other diseases. The water in the springs can warm up to 80°C (176 °F). *Kitagata* is a vernacular for warmth, but because of the popularity of the place, the village and sub-country are also called Kitagata. Many people from within and outside Uganda come to bathe in the warm waters of Kitagata Mulago, the one believed to possess curative powers.

Origin of the hot springs

According to Geresom Kabasekye the care taker of the hot spring, it was discovered by a hunter named Kahigi in 1904 while hunting in the morning hours. Kahigi saw steam released by the spring in the morning, which attracted him to look for the origin of the smoke-like steam, only to find it was hot water oozing from the ground. From that time on, the word of the hot spring has spread especially in the area of healing, says Kabasekye. The hot springs have attracted many people to this place to witness the curing water that burbles from the ground. Many such natural wonders are a result on geological processes, which are also responsible for the formation of other landforms like mountains and rift valleys. However, the local people in the area believe that the Kitagata hot springs are not a result of tectonic forces but rather they were sent by God to treat His people.

Local people also believe that since the water in the Kitagata hot springs is God given, it should be free to everyone for use. It is also believed that if money is charged for using the hot water, then it may cool down thus losing its medicinal value.

The Story of Ssezibwa Falls in Uganda

Ssezibwa falls are found in Mukono district, 27kms away from Kampala the capital city of Uganda. The water falls emerge from rocky grounds falling deep into a kind of oasis water collection surface, before draining into Ssezibwa River which is 150 kilometers long. Ssezibwa is a local idiom implying “something endless”. The beautiful and spiritual Ssezibwa Falls have long been one of the favorite nature preserves for Buganda Kingdom. One of the Buganda Kings, Ssekabaka Mwanga II planted a giant tree at the site to demonstrate his respect and high esteem he had for the wonderful Ssezibwa Falls and Muteesa II planted another. Both trees are regarded as sacred gifts from the Kabakas (Kings). It is for this reason and the wonderful nature of the falls that many people flock the area for blessings for wealth and prosperity, marriage stability and general fortunes in their daily social lives.

These falls are believed to have been born by humans many years ago. It is said that a woman, Nakangu of the Ekibe (wolf) clan gave birth to a twin river, which split into two distant streams by an island immediately below the waterfall. It is believed locally that the spirits of Nakangu’s unborn children-Ssezibwa and Mobeya-still inhabit the river, and it was once customary for any Muganda passing its source to throw a handful of grass or stones into it for good luck and great fortunes in life.

The presence of “Mbuga Ya Musoke” a cowry shrine believed to be a home a python called Nalongo (mother of twins), is the guardian of the place and many people bring gifts like eggs, chicken, milk, local brew and coffee to honour the spirits such that they may receive blessings of giving birth to twins and getting wealth.

Part Two: Action Process

What is an Action Project?

Activities and *Action Projects* are experiential. An 'activity' may involve hands-on work and it may be fun and engaging, but it is not necessarily an action project. An example of an activity on the left end of the spectrum is a shoreline clean-up event that was organized by adults without consultation with students and that is ***not*** in response to concerns expressed by students. An 'action project' on the other hand has meaningful engagement of students throughout the entire process. The following continuum illustrates some of the differences between activities and action projects.

The Action Project Process: 12 Steps for Taking Meaningful Action!

The teachings of the Medicine Wheel are vast and incorporate knowledge of many things including where we began and where we are going. There are Seven Sacred directions, the four cardinal points on the Medicine Wheel show four of the Sacred Directions, which are represented by the colours yellow, red, black and white. "The Seven Stages of Life are also found on the Medicine Wheel. They begin in the East and move across the Wheel to the West. The Seven Stages of Life are: The Good Life, The Fast Life, The Wandering Life, the Stages of Truth, Planning, and Doing, and The Elder Life."[9]

Teachings about the four Sacred Directions and the Seven Stages of Life found in the Medicine Wheel provide a foundation for understanding the 12 steps for an action project process.

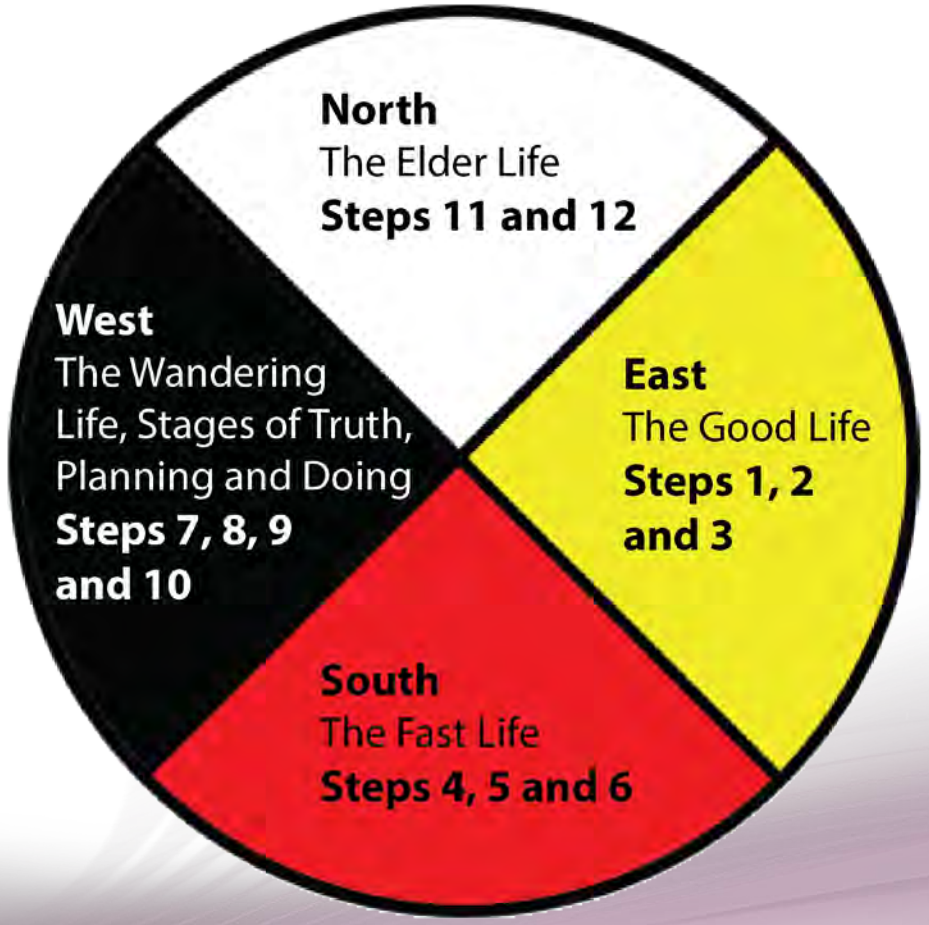
- **East (yellow):** is where everything begins, it's where the sun rises, it represents birth and infancy (the first seven years of life), it is where you start your journey. In this way it relates to Steps 1, 2 and 3 of the Action Process.
    - Step 1: Decide on Goals, Parameters, and an Assessment Plan
    - Step 2: Choose an Issue
    - Step 3: Build Understanding

[9] Lillian Pitawanakwat, Ojibwe Four Directions Teachings. Online at: http://www.fourdirectionsteachings.com/transcripts.html

- **South (red):** represents adolescence (the Fast Life), learning, pushing boundaries and exploring who and where you are. In this way it relates to Steps 4, 5 and 6 of the Action Process.
    - Step 4: Generate Ideas for Action
    - Step 5: Choose an Action and Make a Plan
    - Step 6: Build Motivation

- **West (black):** represents Adulthood (the Wandering Life, the Stages of Truth, Planning and Doing), this is a place of knowing, where we apply knowledge learned from the earlier stages. In this way it relates to Steps 7, 8, 9 and 10 of the Action Process.
    - Step 7: Defining and Measuring Success
    - Step 8: Identify Barriers and Supports
    - Step 9: Teach/Learn Skills
    - Step 10: Do it!

- **North (white):** represents the Elder Life and the need for reflection, review and preparation for going forward and on to the next journey. In this way it relates to Steps 11 and 12 of the Action Process. It is a time to reflect on and celebrate what we have learned and prepare to share our knowledge with others.
    - Step 11: Celebrate
    - Step 12: Reflect



Step 1: Decide on Goals, Parameters and an Assessment Plan
Step 2: Choose an Issue
Step 3: Build Understanding
Step 4: Generate Ideas for Action
Step 5: Choose an Action and Make a Plan
Step 6: Build Motivation
Step 7: Defining and Measuring Success
Step 8: Identify Barriers and Supports
Step 9: Teach/Learn Skills
Step 10: Do it!
Step 11: Celebrate
Step 12: Reflect

How to Use this Action Process

Each of the action steps is described below. After the step-by-step overview, there is an activities section. The activities help you facilitate each step of the action process.

Throughout the action process:

- Look for opportunities for FNMI Elders and Traditional Teachers to inform your work.
- Incorporate practices that honour and encourage diverse ways of learning (see page 16 in this guide for more detail). For example:
  - Focus on people and relationships rather than on information.
  - Use visual tools, visual organizers.
  - Look for opportunities to meet curricular expectations ***through*** working on the big picture of the action project. Do not front-load the teaching out of the context of the project.
  - Require reflection throughout the process and at the end of the project.
  - Respect the need for participants to talk to each other.
  - Incorporate stories—oral and written. See page 27 and page 49 and Appendix E.
  - Look for opportunities to learn and demonstrate learning through the arts. See page 30 and page 37.
  - Get students into the community and environment that they are studying.

The Twelve Steps of an Action Project

STEP 1: Decide on Goals, Parameters and an Assessment Plan

- It is important that you clarify the goals and parameters of the project so that you may: Communicate them clearly to the young people.
- Be consistent with the young people. This will foster trust.
- Be thoughtful about your own boundaries. Push yourself to offer the young people as much power and choice in the process as possible.

Carefully work through each of the steps below.

i. As a facilitator, decide on your own goals—why are you facilitating an action project?

ii. Decide on your priorities. For example, is it ***most*** important to you that you:
   a. Address a particular content area of the curriculum?
   b. Help your students to develop a particular skill?

c. Help your students to experience success?
d. Or...something else?

iii. Offer tobacco to an Elder to ask him or her to help guide your work.

iv. Decide how you will measure your own success with the project—from a facilitator`s perspective (participants will also determine indicators of success from their perspective in Step 7):

a. Create modest goals and create a manageable process for yourself—set yourself up for success. Hopefully this will be the first of many action projects that you facilitate.

v. If you are a teacher, will the group be your class or an extra-curricular club?

vi. Decide on your own boundaries:

a. Consider doing the "What would You Condone?" activity (page 72) by yourself or with your colleagues.
b. Read the *Dealing With Sensitive Issues* section in Appendix B in this guide.

vii. Seek mentors and/or mentees (see section *Needs of First Nations, Métis, Inuit Students on page 23* in this guide for information about why and how this could be done).

Look for this symbol throughout the guide. It indicates activities that would be well suited to sharing with mentors.

viii. Prepare to facilitate a discussion with the group about how you want your team to work:

a. What decision-making model will you use? (e.g. majority-wins, consensus decision-making, etc. See the activity on page 108 of this guide)
b. When and how often will you meet?
c. How will discussions be handled to encourage constructive dialogue?
i. See the Deliberative Dialogue and Debate information in Appendix C.

Reflect on your role in the group:

- See the "ladder of meaningful student participation" found on page 70.
- Facilitating effective action projects requires that the facilitator moves along the continuum away from a conventional 'conductor' role toward a 'coaching' role. This is no small task! A facilitator role helps to distribute the power more evenly. Consider the following questions:
  - What are you already doing that supports a 'coaching' relationship?
  - What will need to change in order for you to successfully be more of a coach rather than a conductor?
  - What skills will you need to work on in order to be an effective coach?
  - How will this change in dynamic feel for the young people?
  - How will students' past experiences (at home, with other teachers, etc.) influence their perception of/feelings about this type of relationship?

- What skills will the students need to develop in order to effectively capitalize on the new power-sharing dynamic?

Create an Assessment Plan (for action projects facilitated within classes)

- List the knowledge and skills that you would like to assess.
- *See the assessment tools on page 123.*
- Create your assessment plan.
- Check in: does your assessment plan align with your priorities for this project? Ensure that you implicitly as well as explicitly prioritize the stated goals of the project (for example, avoid saying that the main goal of the project is to build communication skills but assess only scientific knowledge about the issue).

STEP 2: Choose an Issue

a) Where necessary, expose students to a number of different water-related issues facing your community (if your students are already aware of many different sustainability-related issues, you may wish to skip directly to the next step). You could do this by:

i. Using Activity 2E on page 82 about the impact different common pollutants have on water.

ii. Attending a conference that presents a number of different issues. Visit www.r4r.ca/ecoleague to see if LSF is hosting a Youth Forum, or contact roots_shoots@janegoodall.ca to see if JGI is hosting a conference, in your area.

b) To decide on a water related ***issue*** that is important to the group, you may choose to do one or more of the following activities:
- Value line activity on page 75
- *Visioning a Change* activity on page 78
- An environmental and social justice audit at your school (email Teri Burgess, teri@lsf-lst.ca for an example of an audit)

Where necessary, help young people to differentiate between symptoms and root causes of the issue. To do this, you might start by breaking down an example to which the students can relate well (for example, getting poor grades in school). The "*Exploring Root Causes*" activity sheet 83 can be used to help young people do this.

PROBLEM	POSSIBLE SYMPTOMS (=something that arises because of something else—but it isn't the real cause)	POSSIBLE ROOT CAUSES (=the underlying cause of something. If this were changed, the problem would be addressed.)
Students come to school without healthy food.	▪ Students may have extreme highs and lows and may have trouble concentrating as a result of excess sugar and caffeine. ▪ There may be lots of food packaging litter in the desks and the school yard.	▪ A lack of knowledge about healthy food choices. ▪ A lack of time at home to experiment and make healthy food options. ▪ A lack of money for healthy food

To choose your ***issue*** you might consider using consensus-based decision-making. See page 108 in this guide for help.)

c) Explore why the students care about the issue. Take time to do this well. The students' concern for the issue is the fire that will keep the students working. Listening to this fire will help them to take action on a future issue, even if you're not around to fan the flames.
You may wish to use the following activities:

- Activity 2C: Exploring why we care on page 74
- Activity 2D: What would the consequences be…? on page 79
- Activity 2E: How did that get in the water? on page 82

STEP 3: Build Understanding

- Consult Elders
- Consult traditional stories and teachings
- Explore traditional First Nations, Métis, Inuit (FNMI) ways of understanding nature (see the related section in this guide)
- See Activities on page 83 for help with the research process
- What has already been done on this issue? What can you learn from those experiences?
- Is there anyone else in your community who is already working on this, or has knowledge that could help you? Don't feel you need to reinvent the wheel!

STEP 4: Generate Ideas for Action

1. As a group, explore types of projects that can be tackled through action projects. (See activities on page 90)
2. Brainstorm ***action*** ideas. What could your group do about this issue? See item 4 in Project Planning Template on page 97.
3. As a group, brainstorm and decide upon the criteria you will use to choose an ***action***. For help, see criteria in the chart below.

- Choose an action (see the chart that guides students through the action selection process in item 6 in the Planning template on page 97). You may wish to use the consensus model of decision making to pick the action project. The activity on page 108 will help you to teach young people how to build consensus.

Possible Action Selection Criteria	
✓ Is this action consistent with my own values? ✓ Does an Elder or community leader believe that this action is a good idea? ✓ Are relevant resources and information available to us? ✓ Can we finish an important piece of this project within our time limits? ✓ Is the action that the group has chosen the most effective one available? ➢ Does it address a root cause of the problem rather than just a symptom? ➢ Does the action 'walk the talk' so that it will be perceived as credible? ✓ Are there ecological consequences of this action? If so, what are they? ✓ Are there legal consequences of this action? If so, what are they? ✓ Will there be social consequences of this action? If so, what are they? ✓ Are valuable relationships formed as a result of the project?	✓ Will there be economic consequences of this action? If so, what are they? ✓ Do the personal values of members of the group support this action? ✓ Does this action address short or long-term causes? ✓ Does the group understand the procedures necessary to take this action? ✓ Does the group have the skills needed to complete this action? ✓ Does this group have the courage to take this action? ✓ What educational benefits will be obtained? ✓ Will people feel empowered as a result of working on this project? ✓ Does the action feel like a good idea?

- Once you have chosen the action project, decide if you need to do more research related to the specific action. For example, in an effort to protect ground water, if students wish to encourage the community to stop throwing hazardous materials in the landfill, they may need to find out different recycling and waste disposal options for things like batteries and engine oil.
- As a group, make a very detailed plan including timelines and clearly state who is doing what. See item 16 in the Action Planning Template on page 97.
- Post the plan somewhere that everyone in the group has access to it. Check in with the plan frequently and revise as necessary.
- Create milestones that can be celebrated along the way and will help you to track your progress.

STEP 6: Build Motivation

Having young people choose their own issue inherently improves young peoples' motivation; however, everyone needs a little extra motivation some times, so please consider the suggestions below.

Spend time allowing students to describe the reasons they ***care*** about this issue. This will be the foundation of motivation you will draw on throughout the project—take time to build it well and to revisit it often. Some ways that you may do this are:

- Visit the important humans and other animals and/or places that you are working to protect. Consider inviting an Elder or Traditional Teacher to come on a walk with you. You may wish to ask the Elder or Traditional Teacher to speak about traditional activities on the land, traditional uses of plants, and/or stories about plants and animals.
- Create a group mural about why your care about this issue. Post it somewhere highly visible to the young people and to others.
- Take and display photos of the important humans and other animals and/or places that you are working to protect.
- Get students outdoors —whenever possible, not just when necessary.
- Tune students in to what is going on outdoors (see the following resources: *Step Outside* [yellow button on www.resourcesforrethinking.ca website], *Up North* and *Up North Again* by Doug Bennett and Tim Tiner and *Backyard Almanac* by Larry Weber).

STEP 7: Defining and Measuring Success

It is important to define and measure success so that:

- Success is achievable.
- Success is acknowledgeable.
- You know whether or not your strategy was successful so you can use this information in the planning of future projects.

Defining success is especially important when working with FNMI learners because Western methods of determining success do not necessarily reflect the values and beliefs of First Nations, Métis and Inuit communities and may not be the same as traditional FNMI definitions of success.

Help young people choose appropriate goals. For example, for an anti-idling campaign, does "success" mean that 100% of the visitors to the school never idle their cars? Is this realistic? Constructive? Does success mean that most of the students involved in the project become comfortable and effective when educating people they do not know very well?

As a group, choose definitions of success that are appropriate and motivating. Formally assess your 'success' against the criteria the students developed in the action plan (see item #16 in the

action planning template on page 97 ***)*** at least once ***before*** the end of the project as well as at the end of the project.

STEP 8: Identify Barriers and Supports

Look at the barriers and the supports that may affect your success and reflect on productive ways to deal with them. (See Force Field Analysis Activity on page 107).

Encourage students to consider multiple perspectives. Focus less on opinion and argument, or right and wrong, and encourage students to share and extend their own thinking through discussion with others.

Explore the relationships between concepts. Encourage young people to go beyond dichotomous 'this OR that' thinking. Check out Appendix C.

STEP 9: Teach/Learn Skills

Decide on the skills and knowledge people in the group need to complete the project and teach them these skills for example, interview skills, letter writing, etc.).

Ask Elders and other members of your community for help with community protocols and with the teaching of new skills. Check out the *Respectful Communication* section of this guide on page 38 for help.

Remember that one of the goals of the project is for students to feel equipped and motivated to do another project.

STEP 10: Do it!

a. **Review Action Plan:** As a group, check in with your action plan frequently and revise as necessary. Formally assess your 'success' against the criteria the youth developed in the action plan at least once ***before*** the end of the project as well as at the end of the project.

b. **Reflect:** Have the young people reflect on your action project *throughout the process.* How are you doing? Are there any changes that could be made to make your project better? See *page119.*

c. **Log your progress:** Have the young people take turns making entries into a group journal or log book tracking what you're doing and how they are feeling about it. The information and the reflections will be helpful to:
    i. Your own group at the end of the project.
    ii. You for the next project you facilitate.
    iii. Another group who wants to do a similar project when they hear about yours.

STEP 11: Celebrate

Celebrate milestones along the way and at the end of the project. Check in with your goals for the project (Steps 1 and 7) to celebrate different types of accomplishments like a challenging but effective discussion, new skills, or the new-found support of someone who was previously a barrier.

Consider making the celebration arts based: sing songs, make up a song, create a music video, create a dramatic performance, create a dance, make a photographic display, build a multi-media mural. These creations can be small or big...as long as you celebrate.

Share your celebratory creation with your local community and the wide community with JGI's facebook page, using the hashtag #projectblue: .
https://www.facebook.com/JaneGoodallCAN?ref=ts&fref=ts

Invite an Elder to lead the celebration.

STEP 12: Reflect

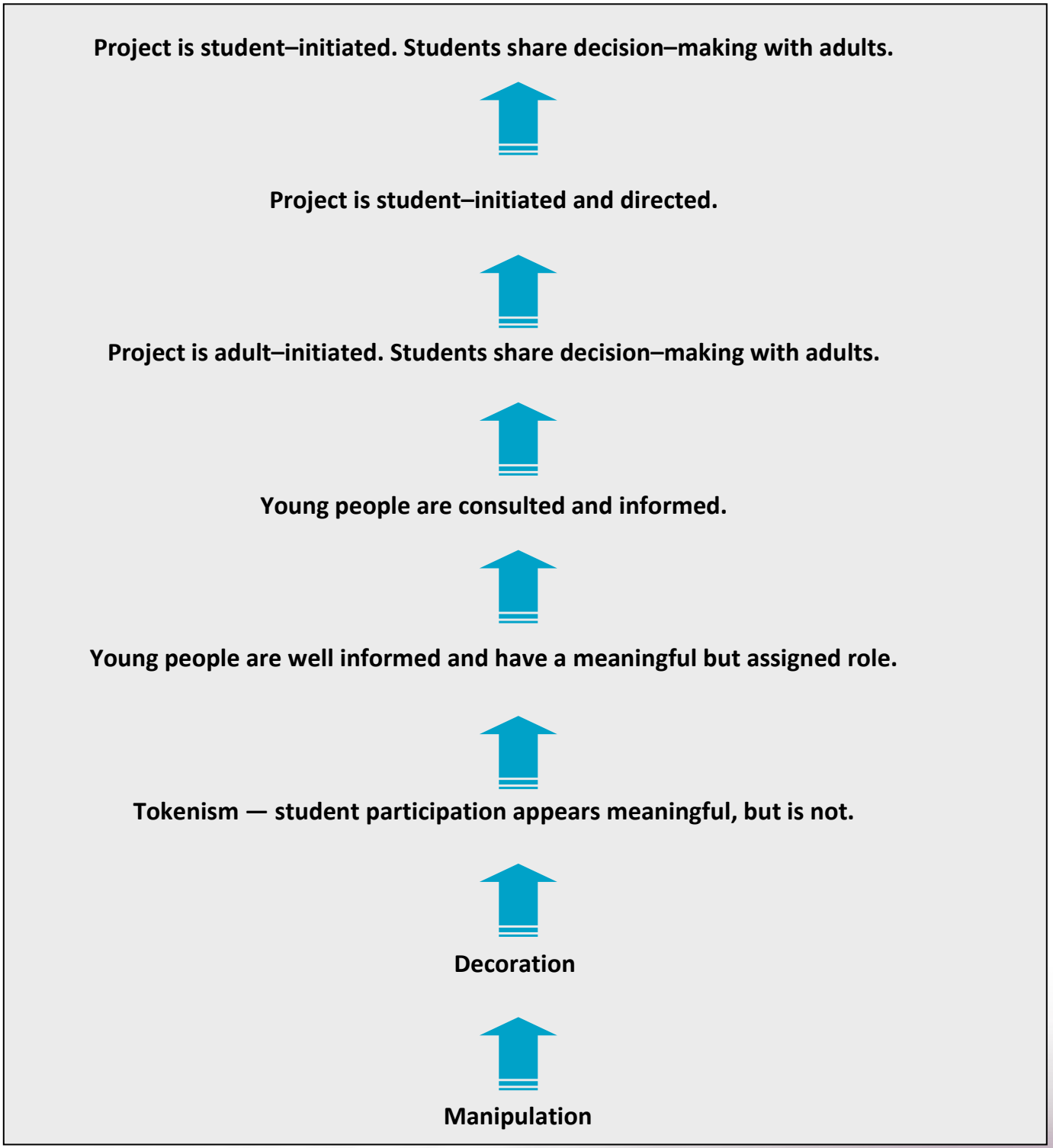
Facilitate a formal reflection activity at the end of the project. Consider using the creative arts as a vehicle for at least one of the reflections. See *Activities on page 119* for suggestions.

CONGRATULATIONS! Rinse and Repeat.

Figure 15 - Art by Blake Debassige

Meaningful Student Participation

Roger Hart's "Ladder of Participation" has the following rungs[10]*:*



[10] From: Hart, Roger (1997). *Children's Participation: The Theory and Practice of Involving Young Citizens in Community Development and Environmental Care.*

I. Activities Which Support the 12 Action Steps

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Step 1: Choosing Parameters[11]

Activity 1A: What Would You Condone?

What is Going On?

By examining different types of actions young people can take, facilitators and young people can reflect on what they personally consider appropriate and inappropriate.

Materials

- Chart paper
- Markers
- A copy of the chart on the following page

Time Required

30-60 minutes

Procedure

1. On chart paper, create a Venn diagram using two large, overlapping circles. In one large circle write, "Would not Condone" and in the other, write "Would Condone". The overlapping section in the center of the diagram is for the actions you would condone if they were changed ("WCIC") in a significant way (specify the change required).

2. Read each action listed below. Discuss the student action and decide if you would condone the action described taking place.

3. Write the number of the activity in the corresponding area of the Venn Diagram.

4. After you have placed all of the action numbers in the appropriate places on the diagram, look at the overall pattern on your diagram. Discuss the results (for example: What types of action are supported? Are they effective in making change? What types of action are not supported? Is there a pair of activities in which the action is quite similar but the topic is different, resulting in one action being condoned and the other not?).

[11] Adapted from an activity by David Selby from the article *Kaleidoscopic Mindset.*

	Student Action
1	Young people follow a local election in all its stages, interviewing voters in their community and attending local election meetings to raise awareness about the impact low-paying jobs have on working families.
2	Young people host a press conference to alert the community about a law that is about to be passed that would make it easier to sell land.
3	After learning that a new, heavily-polluting industry is hoping to come to their community, young people create a campaign to urge fellow young people to write letters to government representatives and to Band Councillors to prevent the company from setting up shop in their community.
4	Frustrated that the car traffic outside of the school is polluting the air, students create a campaign to educate motorists about the negative effects of idling their cars.
5	Young people choose a heavily-packaged toy and write to the company to tell the company executives that they will not buy the toy until the packaging is minimized. The young people actively encourage other people to boycott the toys through Facebook posts and posters at school.
6	Young people organize a fundraiser to raise money for an organization that promotes water protection in Canada.
7	Young people engage in a letter-writing campaign to local newspaper and radio stations to ask them not to advertise a new film which the young people deem to be too violent.
8	Young people create a Youtube videothat illustrates how the low wages paid to workers in a South American country indirectly accelerate the destruction of the rainforest. A branch of the multinational company in question employs many of the young peoples`parents.
9	Young people host a press conference to raise awareness about the work they are doing to combat racism in their community.
10	Young people create a brochure and distribute it in the community to alert local residents about the impact household chemicals can have on the local water system.
11	After learning that a local company sells goods created in sweatshops in poor countries, young people mount a sit-down protest at the school gates to stop an exhibitor from the company from participating in the community career fair.
12	Students create a survey to find out what teachers would need to have in an “outdoor classroom” in order to use the “outdoor classroom” well. Students then lobby the school board and the parent council to provide funds to build the outdoor classroom. Students even suggest that money should be taken out of other budgets like the library and the phys.ed. budget to ensure that the “outdoor classroom” is built.

Activity 2A: Why Care? What does this Picture Make Me Think About?

1. Search for photos that illustrate the diverse and important uses of water to humans and other-than-humans, near and far. You may wish to search using phrases like: 'photos water justice', 'photos water contamination', 'photos water pollution', 'photos water recreation', 'photos water ceremonies'. Look for photos that are compelling and leave room for discussion. For example you might like to use photos from these sites:

   - http://www.flickr.com/groups/ourworldourwater/
   - http://www.fotosearch.com/photos-images/water-contamination.html
   - http://www.fotosearch.com/photos-images/water-pollution.html
   - http://www.nationalgeographic.com/photography/
   - http://www.greenpeace.org/international/photosvideos/

2. Print the photos so there are enough for each group of four people to have a set of diverse photographs. Consider putting the photos in plastic sleeves for reuse.

3. Have young people work in small groups. Ask each group to pick five photos and discuss how they feel looking at the pictures. What thoughts come to mind? What do the photos show about water and humans in other, diverse parts of Turtle Island (for example: rural areas, urban areas, remote areas)? What do the photos show about water, humans and other animals?

4. Have people choose a title for each of the images and place it on the wall. People can also make their own cards, with hand-drawn images, based on their own knowledge.

5. In small groups, ask students to classify the photos and justify their classification system.

6. As a class, discuss the possible classification options.

7. Ask people to choose one image and create another image (photography, drawing, collage,…) that either:

Explains why the image is important to her/him,

or

Changes the image to something she/he would prefer to see, or

Represents the 'future life' of the characters/place in the photo.

8. Invite an Elder or Traditional Teacher to come in to speak to the young people about the images they created.

If you have mentors, invite them to come to see the images the young people create.

Activity 2B: Value Line Activity

Materials:

- Pieces of paper in 3 different colours (each piece should be approximately 1/8 the size of a piece of letter-size paper). Enough pieces so that each student can use approximately 6 pieces of each colour (=18 pieces per student)
- Open space
- Scrap paper
- Masking tape
- Markers
- 8 shoeboxes, plastic bins, or buckets etc.
- Chairs or pylons that can go outside

Preparing for the Activity:

1. Read the entire procedure below; it will help to make sense of these instructions.
2. Distribute pieces of coloured paper so that every person has access to many pieces of each of the different colours of paper.
3. On the board or on an easel (if outside), write the code for what colour matches what venue. For example: pink=home, blue=school, white=community.
4. Outside, create a space where there is an imaginary line upon which your whole group could stand. This line is a scale. Put a sign on one side of the line that says “don’t care” and a sign on the other side of the line that says “really really care”.

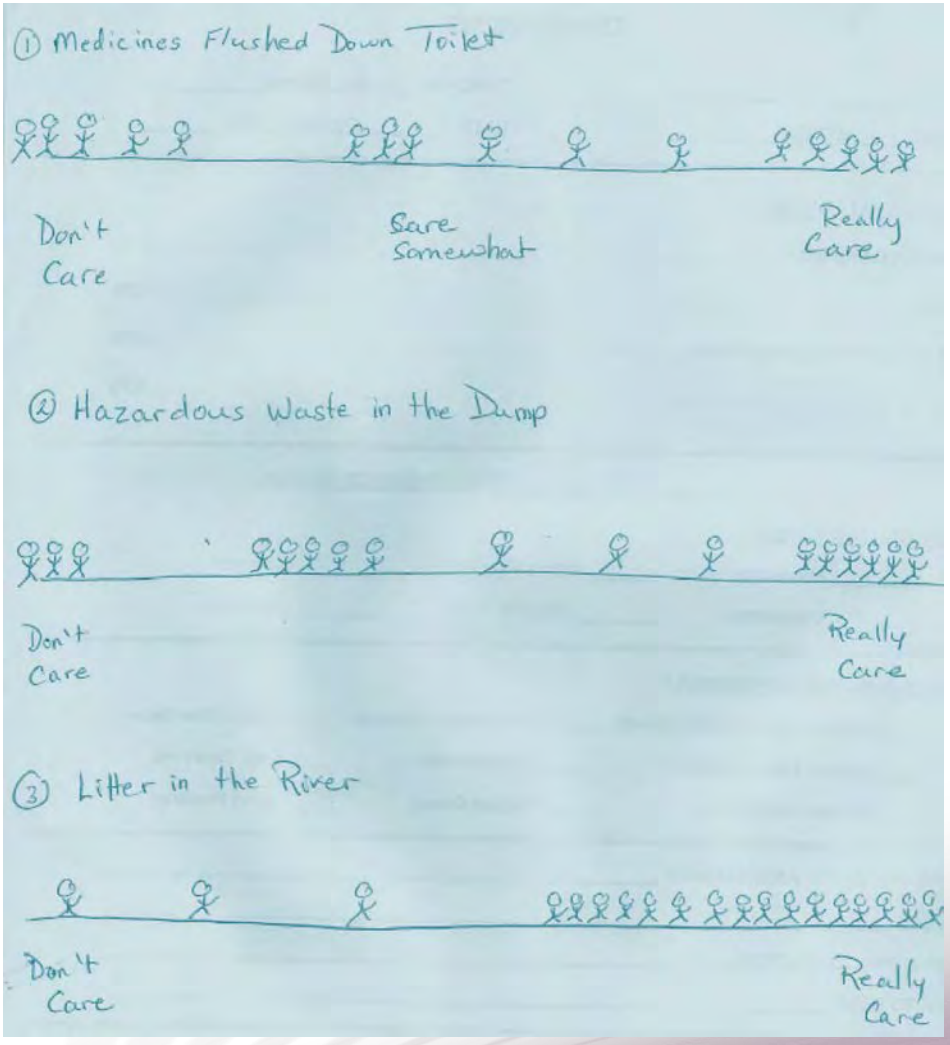
Procedure:

Part I

1. Give young people examples of things that bug you. For example, idling cars bug me because of the noise and air pollution they create. Tell students that when you say “go” you would like them to use the pink pieces of paper to write down things that bug them ***that happen at home***. For example, my brother doesn’t recycle toilet paper rolls, my parents use pesticides on the lawn, my house is too warm at night so we are probably wasting fuel. Students should write one idea per piece ***of paper and try t***o fill as many pieces of paper as possible. Students should put their pieces of paper in a central bin.
2. Repeat step two, this time having students use blue paper to write down ideas about things that ***happen at school*** that bug them.
3. Repeat step three, this time having students use white paper to write down ideas about things that ***happen in their neighbourhood.***
4. Put all of the ideas in a central bin.

Part II

1. Take everyone outside. Create a space where there is an imaginary line upon which your whole group could stand. This line is a scale. Put a sign on one side of the line that says “don’t care” and a sign on the other side of the line that says “really really care”.
2. Tell students that you are going to draw ideas from the bin. For example, one thing that bugs one of the students is that her sister leaves the television on which wastes electricity. Tell students that in response to the idea of wasting electricity, when you say ‘1,2,3, go’, students should go to stand on the line on the appropriate place on the scale, depending on how much they care about that issue. Explain to students that they are not ranking themselves/comparing themselves to each other. Instead, they are just listening to their own feelings about the issue.
3. Choose one student to be the recorder. Ask the person to sketch a line on a piece of paper and to sketch how people are distributed on it. Label the issue. Repeat this for each issue that comes up. For example, the sketch may look like this:



4. Draw a piece of paper from the bin. Read the issue aloud. Ask people to rate their ***feeling*** about the issue. Emphasize that you want them to pay attention to how they really ***feel***, not what they think other people will feel. While you are saying '1, 2, and 3' (slowly), students should decide where they will stand when you finally say "go".
5. Repeat step 3 for as many of the ideas in the bin as you can (depending on time and attention).
6. As a group, reflect on the sketches. You could use these sketches to choose one issue that everyone will work on. It would make sense to pick the issue that got the most people on the 'care a lot about the issue' side of the continuum.

Part III: Use this Activity ONLY if Small Groups of Young People will Choose Whatever Issue they Want

If this is the first time you have facilitated a project, you may wish to have all young people choose the same issue. They can choose different ***actions***, but the ***issue*** must be the same. For example, you may do the value line activity above and find out that all of the young people are concerned about the quality of their drinking water. All of the young people will choose an action that aims to improve and/or protect the quality of your community's drinking water. However, everyone can choose a different ***action*** to do this. Some participants may wish to create a campaign to educate the community about safe cleaning products. Some participants may wish to ask community leaders to help them start a battery recycling program to divert batteries from the local landfill. Other participants may wish to create an online petition to ask Federal politicians to create stronger laws that protect waterways from harm from industry. All of these actions protect drinking water. They are all about the same issue, but the ***actions*** are different.

If you want to allow the participants to pick different **actions**, then you may wish to use the activity below.

1. Use previously prepared signs or make up signs that reflect the top issues the young people seem to care about based on the Value Line activity above. Make 1 sign for every two or three people. Make one sign that says "other". Tape the signs to chairs and spread the chairs around an open space.
2. Ask young people to look at the issues. When you say "go", tell them that you would like them to go to the sign that has the name of the issue in which they are ***least interested***. "1,2,3…go"
3. Ask young people to look at the issues. When you say "go", tell them that you would like them to go to the sign that has the name of the issue in which they are somewhat ***interested***. "1,2,3…go"
4. Ask students to look at the issues. When you say "go", tell them that you would like them to go to the sign that has the name of the issue in which they are ***most interested.*** "1,2,3…go"
5. Have these groups sit together to discuss the issue more specifically. Go to each group and try to put students into groups of 2-4 depending on common interests. From here, you can use these groups to research the issue and/or act on the issue.

Activity 2C: Visioning a Change for a School

Part I:

1. Use the chart below. Discuss the meaning of each of the headings, using the example to illustrate the meaning.
2. Solicit other examples from the whole group.
3. In small groups, have students work on generating more examples.
4. Debrief in large group.

What Would a School that is Working Toward a Sustainable Future Look Like?

OPERATIONAL PRACTICES	ORGANISATIONAL PRINCIPLES	PHYSICAL SURROUNDINGS	CURRICULUM
• Young people are encouraged to bring water bottles to class/meetings • Composting program	• Prioritize tapping into community resources, e.g. Elders, traditional teachers • Decisions are made by consensus wherever possible	• Diversity of indigenous (local) plants thrive in the school yard • Low flow toilets	• Local issues are integrated into the curriculum • Participants are provided with choice wherever possible

Part II:

Ask students to brainstorm in small groups: what are some things that happen at your school that are not Earth-friendly? Think of rules, practices.

Part III

Use the Value Line Activity (page 75) to have students choose: if you could change one thing about your school, what would be the non-Earth-friendly thing from your list that you would most like to change?

Activity 2D: Why Care? What Would the Consequences of That Be…?

General Overview

Young people create a concept map of an issue. The central picture of the map depicts the issue. Each line away from the central ***picture*** asks the question "***what would be the consequences of that" ?*** At the end of each line is a new picture which tries to address the "***what would be the consequences of that?"*** question. See below and page 45 for examples of concept maps.

Objectives

- Students explore the diverse reasons to care about something.
- Students draw upon emotional and rational dimensions of their responses to an issue.
- Students deepen their understanding that diverse dimensions of issues are interconnected: health, environment, economics, justice, well-being, etc.

Materials

- Chart paper (preferably already used on one side)
- Markers that don't bleed through the page (so you can use the other side!)

Time Required

45 minutes

Procedure

1. Have your students choose an issue that they care about. You may wish to do this using the "Value Line" activity on page 75 above to help them choose something. You will need to decide on the parameters that you want to set. Does it need to be a particular issue studied in the last unit you covered in your course (for example, natural resources)? Does it need to fit within a theme in your club (for example, healthy water ways)?...

2. Model the activity described below using an appropriate issue. **It may be easier for your students to learn how to use the tool using a very accessible issue like `What Would Happen if You Spent all of Your Waking Hours Facebooking?' We used a water issue for our example below simply to provide extra information for the facilitator.**

    a. In the centre of a piece of chart paper, draw a square. Inside that square draw a picture that shows what would happen if the issue you care about was dramatically changed in a positive way. For example:

    People in our community do **not** *put their hazardous waste in the landfill.*

    NOTE: trying to use pictures rather than words can help students to try to think about the issue in a more holistic way.

    b. Draw a line away from the picture. On top of the line, write the question, "what would the consequences be?"

    c. Connect the line to a new shape.

    d. Inside the new shape, draw a picture or write a phrase describing one of the consequences of the positive change. The consequence itself can be positive or negative. For example, if people did not put their hazardous waste in the landfill, a consequence would be:

    The chemicals from the hazardous materials would not leach into the water.

3. Draw a line away from the statement/picture from Step d. On top of the line, write the question, “what would the consequences of that be?”.

4. Connect the line to a new shape. In this new shape, draw a picture of the consequences of the situation in the previous picture (e.g. Less hazardous chemicals in the water would mean that more diverse insects would grow).

5. Continue with this one line of thinking until you no longer have an answer to the question “what would the consequences be?”(for example, more insects would mean more fish which would mean more fish for humans to eat. This might have consequences like: my grandfather would spend more time fishing which would result in more relaxation which would result in: healthier relationships and longer life. This would make me happy.)

6. Start a new spoke from the central picture with a new line of thinking (e.g. Less hazardous chemicals in the dump may mean more things going to a recycling plant, which may mean more jobs/hours for people at the recycling plant, which may result in…; however, less hazardous chemicals in the dump may mean more hazardous chemicals being shipped overseas for inappropriate disposal in financially poor countries which may result in diminished health for people far away which would make me sad).

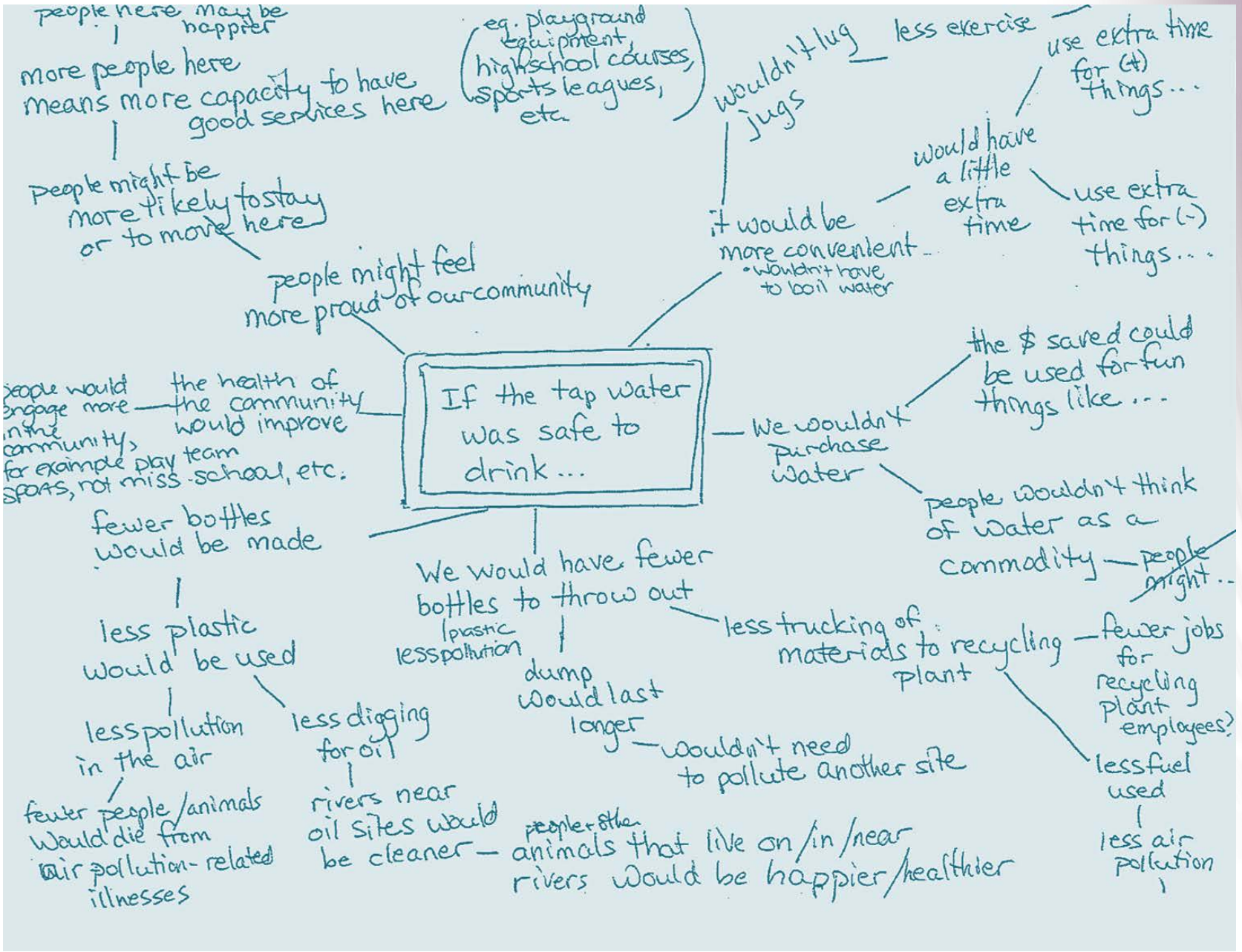
7. Repeat steps b to h as many times as possible. For each line, ask if there is more than one possible consequence for that particular result.
   TIPS:
   - Incorporate environmental, social (e.g. justice, health, etc.), economic consequences.
   - Incorporate consequences for humans and animals.
   - Incorporate consequences for humans and other animals near and far, now and in the future.
   - Try to use emotional reactions as well as logical ‘reasons’.
   - Try to use pictures as well as words.
   - Try to bring each branch of the diagram into as many different directions as possible.
   - Try to use positive and negative consequences.

8. Have the young people create their own “What would the consequences be?” maps using the issue that they chose in Step 2 of the Action Process.

9. Have the students post their maps around the room and invite everyone to look at everyone else’s. Students should be given the opportunity to ***not*** post their maps.

10. Reflect on the interconnectedness of the social, environmental and economic dimensions of the issue.

11. Revisit the maps as your students move through the Action Process to record new learnings.


If the tap water was safe to drink...
people might feel more proud of our community
people might be more likely to stay or to move here
people here may be happier
more people here means more capacity to have good services here
(eg. playground equipment, highschool courses, sports leagues, etc.)
it would be more convenient
wouldn't lug jugs
less exercise
would have a little extra time
use extra time for (+) things...
use extra time for (-) things...
We wouldn't purchase water
the $ saved could be used for fun things like...
people wouldn't think of water as a commodity
people might...
people would engage more in the community, for example play team sports, not miss school, etc.
the health of the community would improve
fewer bottles would be made
less plastic would be used
less pollution in the air
fewer people/animals would die from air pollution-related illnesses
less digging for oil
rivers near oil sites would be cleaner
We would have fewer bottles to throw out
(plastic) less pollution
dump would last longer
wouldn't need to pollute another site
people+other animals that live on/in/near rivers would be happier/healthier
less trucking of materials to recycling plant
fewer jobs for recycling plant employees?
less fuel used
less air pollution

1. Divide young people into 10 different groups. Allow each group to choose one of the types of pollutants listed in Figure 1 (see Appendix D). Provide each group with a slip of paper that has the source and effects information related to their pollutant. Do not allow the other groups to see the source and effects information related to other groups' pollutants.

2. Ask people to draw a picture of what is happening in the centre of a piece of chart paper. Ask them to make the picture as graphic as possible so that someone who had not read the information can tell what is happening.

3. Post the chart papers around the room. Ask everyone to tour the pictures. Have each person choose five of the pictures and write a one paragraph description of what is happening in each picture.

4. As a whole group, ask volunteers to describe what they think is happening within a particular picture. Then, ask the authors/illustrators to add any missing details to the description.

5. Ask each group to take back their pictures. From each effect (for example, high concentrations of pollutants can kill fish eggs and adult fish), ask the young people to draw a line to a rectangle. On the line, write the question "so what?". In the rectangle, use words and pictures to answer the question 'so what?' (for example, if fish eggs die, there will be fewer fish). From the rectangle, create a new line (with the question 'so what?') and a new rectangle (for example, if there are fewer fish, there will be less food for animals, including humans that eat the fish). Have everyone continue one line of thinking until they cannot answer any more 'so what's'. Then, have everyone determine if there are other directions the line should go in (e.g. a different consequence of the same effect). Ask everyone to repeat this process with all of the effects. The finished product could be a concept map that looks something like the one below or those on page 45.

6. Post the pictures again and do another 'gallery' tour. Discuss.

Step 3: Building Understanding/Coming-to-Know

Consider using the activities below. **As young people build their understanding, have them revisit their 'What would happen if' concept map from activity 2D above**.

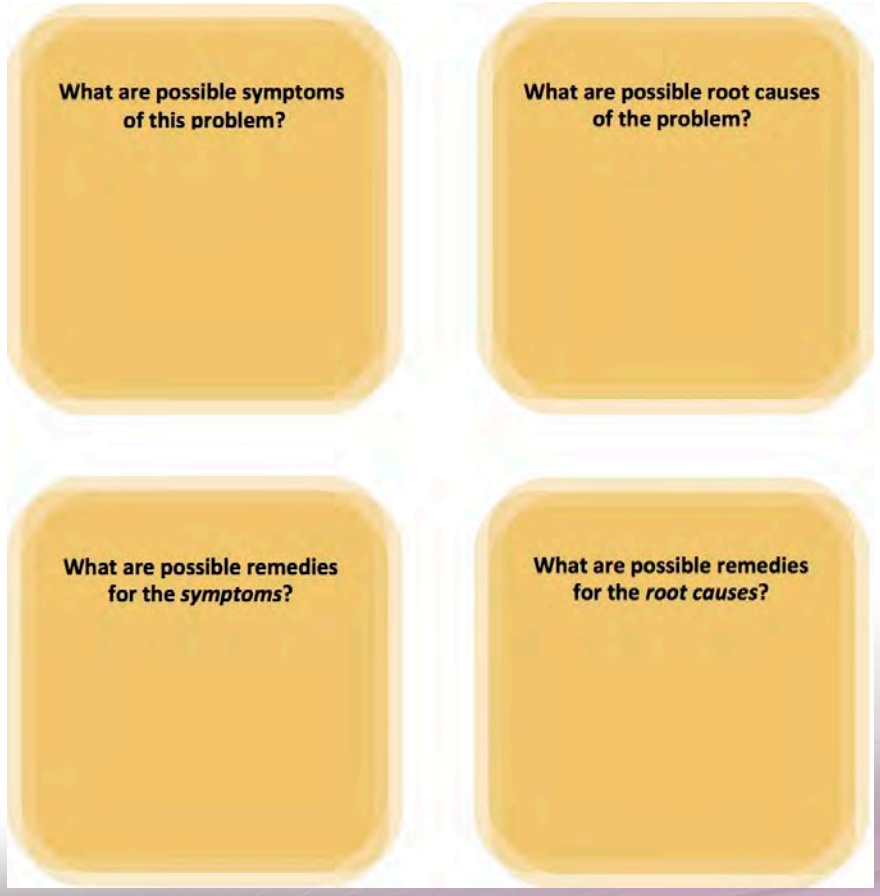
Activity 3A: An Elder's Visit

Invite an Elder in to speak about the issue. See the section in this guide entitled *Respectful Communication* for suggestions regarding how to ask an Elder for assistance.

Activity 3B: Share Stories

- Find stories that involve the issue.
- Invite people from the community to come to tell stories about water (for example, uses of bodies of water in your community).
- See Appendix E for suggestions about books and novels that teach us about water.

Activity 3C: Exploring Root Causes



What problem has your group chosen to work on? (For example: young people purchase bottled water, young people who do not have good food to eat, young people vandalize the community centre, young people get driven/drive to school, etc.)

Activity 3D: Placemat Research Activity

What's Going On?

In small groups, students write as much as they know about their issue as well as their own questions about the issue on a "placemat". The questions are then coded to determine the best way to find the answers to the questions. Young people conduct research based on the method they identified for each question and the young people conduct their research.

Materials

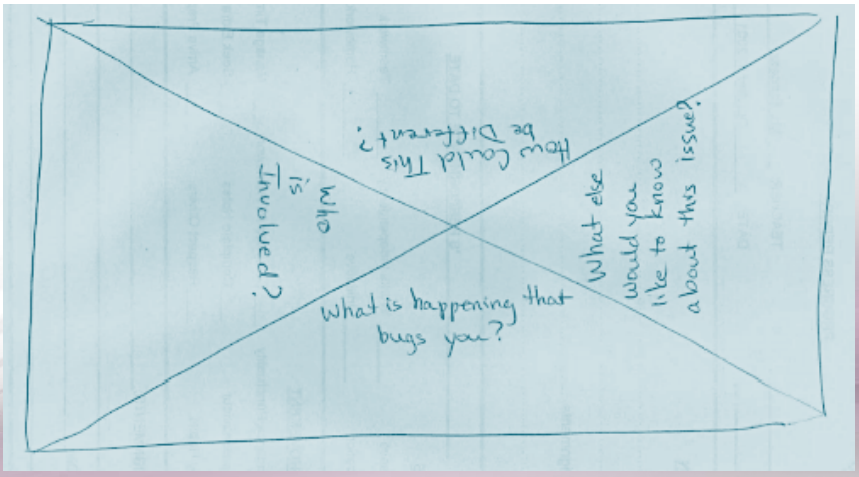
- Chart paper
- Internet access (desirable but not necessary during class time)
- Markers
- Tape
- Scrap paper

Time

- 60 minutes of class time
- Independent or class time for research
- 4-8 days to wait for responses to emailed research questions

Getting Prepared

1. Read the procedure below first; it will help you to understand the preparation instructions.
2. Do one of the activities from Action Process Step Two—Identifying an Issue (above) to help students to identify an issue of concern.
3. Create placemats for each group of students. Make extras in case some students' topics dictate that they should work on their own or in smaller groups. Each placemat is made from 1 piece of chart paper. Draw 2 diagonal lines on the paper to divide it into 4 sections. In each section, tape a copy of one of the following questions so if 4 people are sitting around the placemat, each person has a clearly defined section with one question in it.
   - What is happening that bugs you? Write details and examples.
   - Who is involved in this problem? Name as many people or organizations as possible.
   - How could this be different? What are alternatives?
   - What else do you want to know about this issue?
4. Put a square in the middle of the page with the title: "issue" and a place for students to write the issue that they are concerned about.
5. Make one sample placemat. For example, **concerning disposal of old medications down the toilet**, I could write (see right):



What is happening that bugs you? Describe the problem. Write details and examples.

- People flush their expired or unused medicines down the toilet.
- Even very good treatment plants don't remove many medicines from the water so the medicines go into the lake. These medicines can harm animals.

Who is involved in this problem? Name as many people or organizations as possible.

- All people of all ages who use medicine
- People who sell medicine
- People who work at water treatment plants
- All people of all ages who like to eat animals from our lakes
- Health Canada
- People who are not yet born
- Elders
- Animals
- Plants
- Creator
- Mother Earth

How could this be different? What are alternatives?

- There could be a special depot for collecting unused or expired medicine.
- People could do a better job of using up all medicine so there is less waste.

What else do you want to know about this issue?

- Are companies that sell medicine at all involved in dealing with old/unused medicine?
- Are there places where we can take our old medicine?
- Would people make the effort to take old medicine to the proper place if there was a depot available?
- Are people trying to develop a process for removing medicines during the waste water treatment process?
- Why aren't people using up all of their medicines?
- Do expiry dates on medicine really matter?

6. Write the placemat focusing questions on the board or an easel so that you can model the answers and ask for suggestions to check for student understanding before they work on their own placemat.

7. Write the code used in step one (e.g. circle=…; square = …) on the easel/board.

Procedure

Part I

1. Have everyone get into groups of 2-4 people in which there is a shared interest in an issue (see *Choosing an Issue* activities in this guide, on page 74).
2. Tell everyone that they are going to find out more about the issue they have chosen. Use the model (see preparation section below) to explain the four focusing questions. Provide and solicit examples.
3. In groups, have everyone sit around the placemat. ***At the same time***, each person writes ***one*** answer to the question that is directly in front of her/him. When they are ready (or when you say switch), people turn the paper around (OR people can get up and move to the chair to the right but leave the placemat in the same position) so that a new question is facing each person. Each person reads what the previous student wrote and then adds her/his own ideas—***as many as possible***. People repeat this until everyone in the group has had a chance to answer each question.
4. In their small group, have everyone review all of the responses. Do they have anything they want to add?
5. Collect the placemats. You may need time to review them before moving on to part B.

Part II

1. Depending on the age/ability of your participants, you may want to do this step for the participants or you may want to have them do it in groups. Review the participants' "What else do you want to know section".
2. Refer to (or write) the following code on the easel/board:
   a. Put a star beside all questions that you think would be best asked of an Elder.
   b. Circle all of the questions that you think have answers that are accessible in books or on the internet. For example, how did the water get to my tap? This may be a good question for the water treatment facility website.
   c. Put a squiggly mark around questions that professional people would know the answer to, but the answer probably isn't easy to find on the internet or in a book. For example, *who is responsible for ensuring that local industries do not send polluted water back into the system?,* is a question that would be best addressed by a phone call or email to a government helpline.
   d. Put a square around all of the questions that you think would require a discussion among people or survey to find the answer to. For example, *what is an appropriate balance between the number of stores we have in our community and the amount of greenspace we protect for non-human habitat and human play areas?,* is a question that requires a deliberation or a survey.

3. Provide young people with a stack of scrap paper. On each piece of paper, everyone should write only one of their research questions on the top of the page. Groups should staple all of their papers together. As people gather information, they should write notes, draw photos, note where relevant recordings are, etc. on the page with the question to which the new information applies. For each of their questions, they should follow the appropriate instructions below:

   - **Starred Questions**: Help young people to articulate what they are asking. Help them to determine how they will ask an Elder for help.
   - ***C*ircled Questions**: Help participants to identify possible internet sites or possible books.
   - **Squiggly Mark Questions:** Have participants type up their question as well as a "who might know" list. Depending on the age of the participants, you may wish to compile and send the emails yourself or allow them to source the appropriate person and send the email.
   - **Squared Questions**: participants may wish to host a community discussion or a discussion for local high school students. You may wish to consider:
     - Asking an Elder to guide the discussion.
     - Checking out the *Moderator's Guide for Public Deliberations,* Canadian Council for International Co–operation. See "Voluntary Sector Section" at www.ccic.ca (613) 241–7007 X300.
     - Constructing an appropriate survey.

Activity 3E: Analysis and Assessment of Learnings

What is Going On?

Students review their notes from their research and create a concept map with words and pictures.

Materials

- Chart paper
- Scrap paper of different colours
- Crayons/pencil crayons/markers/pencils/erasers

Alternatively try out COMPENDIUM= free software for creating concept maps that can be downloaded from the internet

Preparation

Prepare your own mind map to share with the students or build one together about a concept you are all familiar with. Many examples can be found online or see preparation section below for examples.

Procedure

1. Share and/or build a model mind map with the students (see preparation section below for examples). If possible, read about mind maps before you do this with your students. If that isn't possible, there are steps written below to get you started. Do steps two and three below in your model, but do not try to draw connections between the ideas (Step 6) at this point.
2. Give each student a piece of chart paper. Have them create a circle in the middle of the paper with a few words/pictures that describe their issue.
3. Ask students to write words and/or pictures around the circle that represent different things they learned about the issue and their own reflections on what they've learned. You might encourage them to use pencil at first. If they want to add details about the words or pictures, you might have them do it on scrap paper and tape them in the appropriate spot in case they want to move the ideas around.
4. Once students have had time to work on their ideas, use your model to discuss the idea of illustrating how the different concepts on the map are connected.
5. Encourage the students to think about and illustrate how the different ideas on the map are connected.
6. Have students pair up and explain to each other what their map represents. Encourage them to actively listen to suggestions from their partner.
7. Encourage students to revise their maps based on the feedback from their partners.

Rubrics

An example of a mind map rubric is provided below.

Example of a Mind Map Rubric

	Level 4	Level 3	Level 2	Level 1	Student Assess-ment	Teacher Assess-ment
Knowledge Lines of thought away from the central image reflect an understanding of the ecological, health, economic, justice, etc. consequences of the issue.	Diagram shows a thorough understanding of the many consequences of the issue.	Diagram shows considerable understanding of the many consequences of the issue.	Diagram shows some understanding of the many consequences of the issue.	Diagram shows limited understanding of the many consequences of the issue.		
Thinking and Inquiry *Relationships* among the consequences of the issue are demonstrated .	Diagram indicates a thorough understanding of relationships.	Diagram indicates considerable understanding of relationships.	Diagram indicates some understanding of relationships.	Diagram indicates limited understanding of relationships.		
Communication • Spelling • Colour • Neatness • Graphics enhance the message	Information is communicated with thorough effectiveness.	Information is communicated with considerable effectiveness.	Information is communicated with some effectiveness.	Information is communicated with limited effectiveness.		

Activity 4A: Classifying Project Ideas[12]

Purpose of the Activity:

- To begin thinking about opportunities for taking action

Materials:

For each group of students (3-5 students)

- Small "Types of Action" Title cards (on white paper)
- 7-10 action project examples, cut apart (on coloured paper)

Procedure:

1. Introduce different types of action by writing possibilities on the board and **briefly** describing each one (e.g. political action, eco-management, education – see attached sheet for a complete list).

2. In small groups (3-5 participants) have participants lay out their own "types of action" title cards then read through the sample project cards and categorize them under the appropriate headings.

3. If any participant has been involved in an action project, she or he should create a card for her/himself and add it to her/his sorted pile.

4. Ask students to pick the project that seems most interesting to her/him and be ready to share it and describe why she/he chose it.

5. When small groups are done, have participants share their most interesting action project and explain why it is interesting. You may also want them to post their cards under the appropriate heading on a piece of chart paper to create a permanent display of possible projects.

[12] Adapted by Teri Burgess and MJ Barrett from Project Wild. (1995). *Taking Action: An educator's guide to involving students in environmental action projects.* Bethesda, MD: Western Region Environmental Education Council, Inc. Order from Council for Environmental Education. www.projectwild.org Ph. (713) 520-1936.

TYPES OF ACTION

Educate & Inform

This can involve educating peers, younger students, community members through: community education programs, newspaper articles, plays, poems, posters, advertisements, workshops, and songs.

Make Consumer Choices

Personal decisions like refusing to buy items with more than one layer of packaging, buying Canadian made and locally grown products, buying organic, boycotting products produced by known operators of sweatshops, buying used, reducing consumption etc.

Persuade Others To…

Similar to educate and inform, this approach attempts to convince people to make changes. Letters to the editor, PA announcements, advertisements (or anti-ads – see Adbusters' website), pamphlets, street theatre etc. are all useful persuasion tools).

Raise Funds

This can refer either to fundraising for an external cause or raising funds to implement your own project.

Engage in Political Action

This has some crossover with legal action and can include meeting with elected officials, speaking at public meetings and hearings, circulating petitions, supporting political candidates, writing letters to the editor etc.

Initiate Legislative Action

This approach is important and usually involves a longer term process. Short term contributions, such as making a presentation to city hall or town council can help initiate or support a legislative change – e.g. making a presentation to support the creation of a law about dumping mine waste in bodies of water or a law to reduce pesticide use in the community.

Eco-management Projects

These projects make physical changes to the environment including schoolyard naturalization, tree planting, river bank stabilization etc. Be careful to distinguish their ecological value from projects that are simply for "beautification".

Make Lifestyle Choices

In addition to consumer choices, this also includes such decisions as: being intentional about forming relationships with Elders, going for walks with Traditional Teachers, learning a traditional language, choosing alternatives to a car whenever possible, and generally conducting one's life in ways which have less impact on the planet and are more sustainable in the long term.

Peaceful Dissent

Peaceful Dissent involves opposition to a rule or to the usual way of doing things, but it does not involve breaking the law. Examples of peaceful dissent include: parades with protest signs, gatherings in public places (with a permit), wearing gym clothing inside out to protest the use of sweatshop labour, etc.

Figure 16 - First Nations protestors dance during an "Idle No More" demonstration on Parliament Hill in Ottawa. Photo Credit: Chris Wattie/Reuters. Source: Macleans.ca

Other…

Your call – anything that doesn't fit into the above categories.

EXAMPLES OF ACTION PROJECTS

Students were concerned when they learned that 2/3 of the world's population will not have access to clean water as of 2025. Students created a compelling audio/visual presentation to play over-and-over again in the foyer of the school during events in which the community was already invited to the school (holiday concert). In addition, students identified several non-profit organizations that work to help people throughout the world gain access to clean water. The students printed information from the non-profit organizations to have available for members of the public to take home if they wanted to learn more after seeing/hearing the students' presentation.

Several families at this local school were dealing with low water levels in their household wells. Students began to ask questions about where the local beverage company was getting the water to make the bottled beverages. Students explored these questions with the local municipal government and conservation authority. Then the students wrote an article about what they learned and their concerns. They searched for diverse venues in which to share the article, including: the local newspaper, the school website, the community bulletin board at the library, etc.

Students learned that 75% of India's surface water and 80% of China's surface water has become too contaminated to drink. The students decided to find out what chemicals in their own homes were contaminating their local bodies of water. When students learned that many cleaning products were the culprits, they decided to lead a campaign in their own homes to reduce the use of commercial cleaning products. The students promised that for three weeks, they would offer to clean anything appropriate with baking soda and vinegar instead of the cleaning product their family usually used. At the end of the campaign, students shared stories about which tasks could continue to be done using baking soda and vinegar and which tasks their families were opting to switch back to the commercial cleaner.

When researching water issues on the internet, students learned about peoples' concerns in India related to a particular pop company's practices at their bottling plants in India (for example, the pop company is accused of using up ground water supplies in drought-stricken areas, making beverages from water that has high levels of pesticides in it, producing hazardous waste and not disposing of it properly, etc.). Students decided that they wanted to find out which products in their local stores were sold by the particular pop company they were studying. Then, the students made individual personal pledges to reduce or eliminate their own consumption of the pop products for a two week period. Many of the students decided to continue their personal avoidance of the specific pop products indefinitely.

At a local conference, some students learned about a non-profit organization that supports park and 'turf' managers to manage lawns and gardens without the use of pesticides (organiclandscape.org). The students were concerned when they learned about the persistence of pesticide chemicals in the water system. The students decided to contact the parks manager for their municipality and the greens keepers for two local golf courses. They prepared a list of questions to ask the managers via email concerning their use of pesticides. Once the students ascertained that pesticides were indeed being used, they requested a meeting at which they tried to persuade the managers to seek the support of the non-profit organic greens- keeping organization. When one of the managers agreed to do this, the students wrote a letter to the editor of the local newspaper thanking the manager for her openness and forward-thinking approach (and reporting the lack of action by the other two managers).

A group of students designed an audit that they used to analyse the litter found in a local river. They identified the types of litter they found most frequently and the probable sources of the litter. The students then did research to pinpoint some of the potential negative consequences of having the most populous types of litter in the river. Once equipped with compelling and specific information about the litter, the students wrote letters to the businesses that were originally responsible for the litter to ask them to consider alternative types of packaging for their products (eg. biodegradable packaging, reusable containers, etc.). The students learned how to identify the person at the companies that would be most likely to constructively respond to their requests. They also experimented with contacting more than one department at a particular company to see what types of responses they would get from the different employees.

A guest speaker visited a grade eight class and told them about a number of countries in the world where the countries are being forced to sell their household tap water distribution systems to private companies (the International Monetary Fund often stipulates that certain public services must be privatized in order for the country to qualify for financial loans). Students were angered by the difficult and often tragic position in which this puts financially poor families in cities like La Paz, Bolivia. The students were also moved to try to protect their own municipal water supply. In an effort to try to get members of their community to better appreciate tap water and to reduce the waste associated with plastic water bottles, the students sold stainless steel water bottles at school sporting events and gave away free fill-ups of tap water to people who bought the water bottles. The profits that they made were donated to a nonprofit organization that promotes the protection of public rights to water (http://www.canadians.org/).

While on a field trip to a brand new municipal swimming pool, students were concerned about the amount of water being wasted in the change rooms of the new facility. They felt that the facility should have low-flow taps, showers and toilets and that the showers should automatically turn off after a certain period of time. The students created a list of questions to send to the municipal recreation department about some of the decisions made in planning the new facility. Unsatisfied with the answers, and aware that a new arena was in the planning stages, the students requested a meeting with the Mayor of the town. They went to the meeting prepared to ask questions about the future direction of by-laws related to municipal buildings and to request that there be strict parameters about water usage in future buildings if these were not already in place.

For a geography project, students studied aerial photos of their local area that were taken in 1956. They noticed that there was a stream running right through their community that they were not aware of because the stream had been paved over. The students asked their teacher for support to learn more about their local stream and they wondered if other streams in their community had also been paved over as the town grew. They contacted the local government and the provincial government to learn more about the rules related to paving over streams and wetlands. Unsatisfied with the current regulations, the students wrote letters to both the municipal and the provincial government to request stricter rules to protect waterways, especially in areas experiencing new construction.

Students tested the quality of water in a local river for a science and geography unit of study. When they discovered that the quality of water was too poor to support many of the species that had originally lived there, the students contacted a number of local non-profit organizations via email to ask questions about potential sources of contamination and potential actions to remediate the problem. Students learned that a number of native plants act as natural water cleaners, but that these plants are often removed when home and business owners landscape their properties that abut the river. As a result, there is not as much natural cleaning of the waterways as there should be. Students engaged in a partnership project with one of the nonprofit organizations to replant native plants along the river bank.

On a field trip to a local waterway, students learned that one of the abundant plants on the waterway was an invasive species that had been imported from Europe for ornamental gardens and had spread to 'wild' areas. They learned that the plant was not a good food source for the birds and insects in their area, but that its presence pushed out the native plant species that were a good food source. In this way, the presence of the invasive species disrupted the entire food web at the waterway. When the students learned that the only viable remedy for this problem was to pull out the plant by hand, they offered to help. The students planned a second trip to the waterway. They discussed methods for removing the invasive species that would involve as little disruption of the native species as possible. They also contacted a local naturalist organization to ask about the best way to destroy the invasive plants. Then they went to work pulling out the invasive species!

When studying natural resource use, students were alarmed and surprised to learn about the massive impacts on rivers caused by large-scale hydro-electric projects and about the amount of water involved in mining oil from the Alberta oil sands. The students became interested in searching for ways to reduce the use of electricity at school so as to reduce their indirect impact on Canadian rivers. The students created an audit to determine all of the ways electricity was wasted at the school. Then the students broke up into small groups; each group took on two electricity-wasting practices in the school and generated ideas about methods to reduce electricity use. As a class, the students brainstormed criteria for choosing the best reduction methods. Each group chose one electricity-reduction strategy (eg. rewards for classes with lights off at recess time) and monitored the impact of their strategy for four weeks after implementation.

Students visited their local drinking water treatment plant and sewage treatment plant. When they became aware of the amount of electricity, chemicals and money that were involved in treating the water that comes to their taps and goes down their drains, many of the students wanted to learn ways in which they could reduce their personal water use. Students were challenged to identify three things that they could do in their own lives and to keep a log for two weeks of every opportunity they had to make a change in their own personal behaviour. For each opportunity, the students were asked to report whether they took the opportunity to do things in a water-saving manner or whether they did things in the conventional, water-wasting way and to explain their choice. At the end of two weeks, students reflected on what, if any, new practices they would continue and how the change (or lack of change) felt.

After watching a video about the resources that go into producing a disposable water bottle (http://www.storyofstuff.org/movies-all/story-of-bottled-water/) , some students decided to reduce their own personal use of disposable plastic water bottles. The students estimated how many plastic water bottles they were usually consuming in a week. The students challenged one another to have the best percentage decrease and/or the fewest number used in a week. The students posted a chart to record the number of bottles used per student per day. At the end of each week, they checked in to see how they were doing. The students continued this for three weeks and then reflected on their personal choices going forward.

Some students noticed that their local school yard was being treated with pesticides. They contacted the department responsible for school ground maintenance and learned that there was no plan in place to eliminate the use of pesticides on school grounds. To protest the use of pesticides in their school yards, students created fake 'gas masks' and wore them during recesses, lunch breaks and outdoor gym periods. The students refused to participate in outdoor gym activities on the grassy area of the schoolyard. The students created a flyer which outlined their concerns and which referred to a web page where students provided more information about their concerns about the impact of pesticides on local waterways and links to other, pesticide-related websites. The students offered gas masks to other students, teachers and visitors to the school.

A group of high school students learned that over 90 First Nations communities in Canada have no access to clean tap water and are on 'boil-water' advisories. After learning that despite many letters, meetings, etc., many of the communities have been living with boil-water advisories for many years, the students wanted to do something to draw attention to the issue. The students planned an event. They gathered camping stoves, reusable mugs, and other necessary equipment. They contacted the media and invited key people, including the local MP and MPP, to the event. They created information flyers and a webpage with more information and other webpage links. On the day of the event, the students gathered on the lawn of the school during the busy period at the end of the school day in which students are leaving the school and many parents have come to the school to pick up their children. They boiled water for drinking and distributed the water and the flyers to as many passers-by as possible.

Since 1992, high school students have been studying current patterns and "fingerprinting" the debris that washes up on their shores. They've written more than 100 letters to sources they were able to "fingerprint" and have received 30 responses indicating that companies will change their products and practices to reduce litter. Inspired by their initiative, various organizations have donated resources and funding to support the students' work. (Texas)

Grade 8 students lobbied the Senate Governmental Organization Committee for approval of their resolution urging the state to use drought-resistant plants in landscaping around new buildings. In their presentations, the students demonstrated that landscaping with drought-resistant plants not only saves water, but also money, energy, labour, and fertilizer. As a result of the students' lobbying and educational effort, legislation passed in 1988 and is still in effect. (California)

As a way to inform residents that what flows into the storm sewers goes directly into local streams, high school students painted yellow fish beside storm sewer entrances and hung yellow fish-shaped information pamphlets on neighbourhood door handles. (Woodbridge)

Read the Resources for Rethinking (R4R) review of the Yellow Fish Road guide that supports this program at http://www.r4r.ca/en/resource/yellow-fish-road-elementarymiddle

Concerned about the lack of environmental education in the schools, high school students prepared a series of workshops highlighting local environmental concerns, and then delivered them to a grade 5 class. (Woodbridge) [see www.ecoMentors.ca for help with this type of project]

Students collect litter from their local body of water. Students inventory the different types of litter they find. Determined to see less litter there in the following year, they choose one type of litter and identify an action that they can do to reduce that particular type of litter. Download the complete free Quest for Clean Shorelines guide at www.resourcesforrethinking.ca

Facts from speech by Maude Barlow, Senior Advisor on Water Issues to the President of the General Assembly of the United Nations http://video.google.ca/videoplay?docid=-2452563840429862970 viewed January 3rd, 2009.

Step 5: Choose Action and Make a Plan

Activity 5A: Project Planning Template

Project Planning Worksheet

Date: _____ Name:_____

Team Members:_____

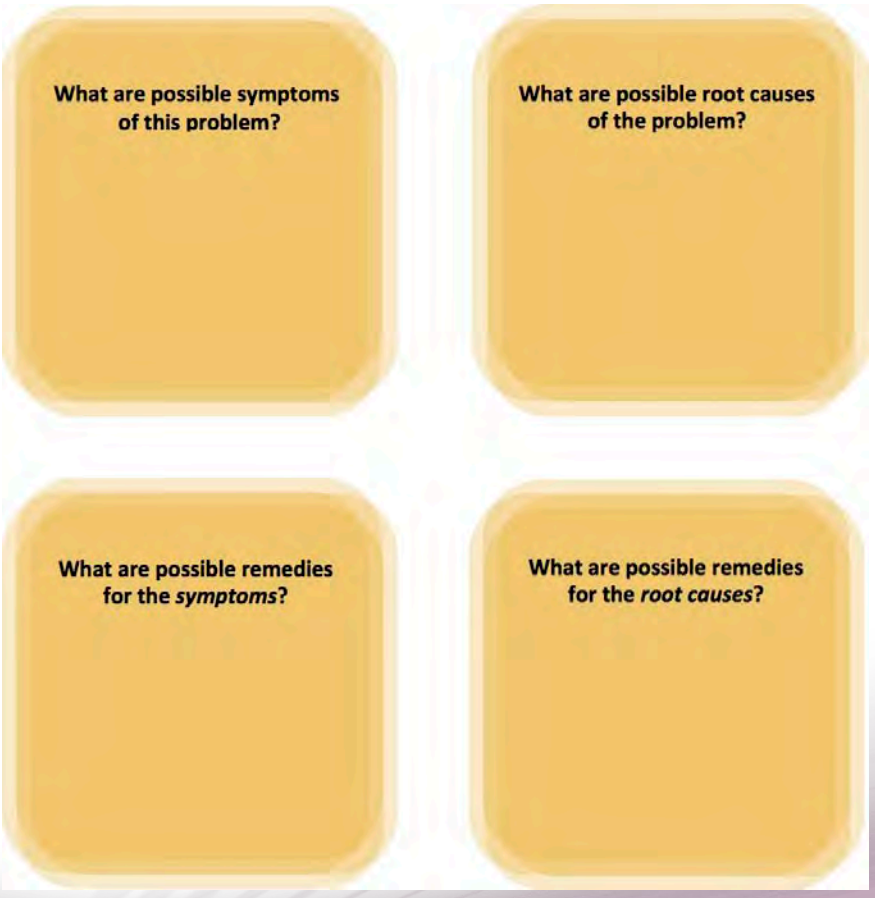
1. What is the issue/problem that you want to work on?
   _____

2. What would you like to see happen? How would you like this to be different?

   _____

   _____

3. Explore the root causes of the problem.



4. Examples of actions you could take to deal with this issue:

Type of Action	Examples of Action Someone could Take about the Issue (Be as specific as possible!)
Educate & Inform *This can involve educating community members, peers or younger students through: community education programs, newspaper articles, plays, advertisements, workshops or songs.*	
Persuade Others To… *Similar to educate and inform, this approach attempts to convince people to make changes.*	
Raise Funds This can refer either to fundraising for an external charity/'cause' or raising funds to implement your own project.	
Engage in Political Action Trying to persuade people with political power to …	
Make Personal Lifestyle Choices Personal decisions that do **not** involve buying things, like: • Bringing reusable bags to the grocery store • Riding your bike or walking instead of asking for a ride • Choosing to leave and/or express disapproval when people tell racist/sexist jokes	

Make Consumer Choices *Personal decisions that **do** involve buying things, like: refusing to buy items with more than one layer of packaging, buying Canadian made and locally grown products, buying organic, boycotting products produced by known operators of sweatshops, buying used clothing, buying less stuff, etc.*	
Get Your Hands Dirty Projects These projects make physical changes to the environment includingremoving litter from a local waterway,, stabilizing a river bank, pulling out plants that are not natural to the area. They also include things like: building a school or play structures for children in need, etc.	
Peaceful Dissent ***Peaceful Dissent*** involves opposition to a rule or to the usual way of doing things, but it does not involve breaking the law (when breaking the law, the term is 'civil disobedience'). Examples of peaceful dissent include: parades with protest signs, gatherings in public places (with a permit where necessary), refusing to attend an event sponsored by a local employer if the local employer does things that damage the water, etc.,etc.	

5. What criteria should you use to choose an action?

_____

_____

_____

_____

_____

_____

_____

_____

Choose 3 potential actions. Write a brief description in the top row of the chart. Write the criteria you listed above on the left side of the chart (a few examples are provided for you). For each possible action, put a check, an "x" or a question mark beside each criterion.

Criteria	**Possible Action #1 is:** _____ _____	**Possible Action #2 is:** _____ _____	**Possible Action #3 is:** _____ _____
1. Will the action address the root cause of the problem (not just a symptom)?			
2. Will this action be effective in making the change we hope for?			
3. Will the results of the action last for a reasonable amount of time?			
4. Is this action suited to the number of people we have working on this project?			
5.			
6.			
7.			
8.			

9.			
10.			
11.			

6. What action would you like to take to try to improve this issue? Be specific.

_____

_____

_____

_____

7. Why did you choose this particular action?

_____

_____

_____

8. What is the goal of your project?

_____

_____

_____

9. Who is the target audience for your project?

_____

_____

10. What questions do you need answered? Keep a running list here.

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

11. For each of your questions above, indicate how the answer to the question can be found:
    a. Regular Research (e.g. books, internet, etc.). Write 'RR' beside the question.
    b. Find An Expert (e.g. find the appropriate non-profit organization, counsellor, Friendship Centre, government department, etc. and phone and/or email a person there to ask your question.). Write "FAE".
    c. Survey (e.g. survey people in your school or community and ask them the question.) Write "S" beside the question.

Use the workplan sheet at the end of this template to help your group to make a plan to find the answers to these questions.

12. Think of EVERYONE who is affected by this issue. Complete the chart.

STAKEHOLDER **(person, plant, animal, place, group, etc. who is affected by your issue)**	**Likely to *oppose* your action *or* to have *concerns* about your action? Yes, no or maybe?**

13. How can you engage the supporters so that they can help you?

_____

_____

_____

14. How can you address the concerns of the people who might be resistant to your project

_____

_____

15. How will you know if you are successful?

EVIDENCE THAT WE HAVE MADE PROGRESS TOWARD OUR GOAL	TOOL THAT WE CAN USE TO MEASURE OUR SUCCESS	SPECIFIC MEASUREMENT THAT WE WOULD BE HAPPY WITH	STATUS ON: _____ (Date)	STATUS ON: _____ (Date)
E.g. If the project goal is to get one school day per year committed to activities which raise awareness about water-related issues for the whole community, one piece of evidence that we have been successful is community support for the project.	E.g. Count signatures on a petition.	E.g. 100 signatures		

Workplan: Who is doing what?
(Include details about: who is researching the answers to the questions identified in step 5, who is approaching potential supporters, who is addressing potential resistance/concerns with your project, who is buying _____, who is writing_____, who is…)

WHAT?	WHO?	WHEN?	STATUS on _____ (date) (Is it done? Is it in progress…)	STATUS on _____ (date) (Is it done? Is it in progress…)

Step 8: Identifying Barriers and Supports

We prefer to think about barriers and supports as being along a continuum rather than an either/or. Check out Appendix C to find out why.

Activity 8A: Force Field Analysis – Barriers and Supporters[13]

Purpose

- To identify stakeholders who may be involved in an issue
- To analyze the perspective and concerns of each stakeholder
- To develop a list of questions for further research

Materials

- Large chart paper (two pieces side-by-side lengthwise works well)
- Thick markers
- Small squares of paper; enough for 1-2 squares per stakeholder (approx 8cm X8cm)
- Masking tape

Procedure

1. Set up the chart paper by writing the following headings across the top:
   Very supportive ↔ supportive ↔ neutral ↔ some resistance ↔ blocking
2. Set aside one section on the paper to put stakeholders' names if your group is very uncertain about the stakeholder's likely position on the issue. Set up another section of the paper to record questions as they arise.
3. After selecting an issue, name the stakeholders who may be involved and write their names on the small squares of paper provided (one stakeholder per piece of paper). Consider both individuals and organizations, as well as differing layers of power and scope of influence (local, regional, provincial, national and global). You may want to write some stakeholders down more than once since they may fit under two or more different headings.
   e.g. A class wants to implement a no-idling request/bylaw in front of the school building. The force field may include: the participating class members, other students, school staff (teachers, administration, custodians, office staff etc.), the school board, community members and parents, environmental groups, municipal officials, and possibly the provincial government or other communities who have attempted a similar project.
4. Using masking tape, place the paper under the appropriate heading on the chart (this should require some discussion, highlighting possible stereotypes and areas where further research is needed).
5. As a group, discuss the following questions:
   a. Are there stakeholders you could meet with/appeal to in order to get them to support your efforts in some way?
   b. Is there enough support (and/or few enough barriers) to go ahead with a project?

[13] Adapted from an activity by MJ Barrett

Step 9: Teach/Learn Skills

Activity 9A: Consensus Decision-Making

What's Going On?

Participants learn and practice the process for consensus decision-making. Working in groups, participants discuss a scenario and come up with a solution/response that everyone can agree upon.

Materials/Preparation:

- An overhead or poster stating what consensus decision making is (see Box in Consensus Appendix below)
- Groups of 5-6 participants

Time Required:

60 minutes

Procedure:

1. Post and review the ***what and why*** of consensus decision making with the students (see below).
2. Post and review the ***tips for building consensus*** (see below).
3. Choose 4 participants to come to the front of the group. The 4 participants and you (a group of 5) will model the consensus building process for the whole group. Tell everyone that in the model, the group will be trying to make a decision about … (choose one scenario from the examples below [see below] or make one of your own.)
4. As a group, briefly model steps one, two and three in the *Consensus Building Process Steps* below (see below).
5. Tell everyone that the issue that they will be discussing in their own groups is: (choose one scenario from the examples below or make one of your own).Assign the groups (5-6 participants). Ask the groups to go ahead with steps one to three only.
6. Circulate among the groups. Get a sense of what their questions are. How much time (if any) will you give them to find the answers to the questions?
7. Adjourn to find answers to the questions.
8. Have your group of 5 (including you) briefly model steps 5-8 for everyone.
9. Remind your participants of the tips for consensus building.
10. Write reflections.
11. Group share.

Consensus Appendix A: Why Use Consensus Decision Making?

A decision made by consensus means:

- The discussion continues until all members reach a plan that they can agree upon.
- The decision is not necessarily everyone's first choice, but everyone can live with it.

Why Use Consensus Decision-Making?

By using consensus decision-making, the opinions of each person in the group are given equal value, which allows each individual to voice her or his opinion and have a sense of ownership over the final outcome. This is in contrast to majority decision-making (e.g. why not just vote?) because if the majority always wins, then the minority always loses! With the consensus model, group members work towards a decision or outcome that *everyone* can support. This is important because the more people that support a decision, for example on what kind of action project to do, the more likely they will participate in the project. This will likely contribute to the strength and success of the project as a whole.

Consensus Appendix B: Tips for Achieving Consensus

- *Openness* – checking our own beliefs regularly and changing them if new ideas make us feel different
- *Creativity* – coming up with new ideas
- *Patience* –consensus building seems very inefficient in the short-run. In the long-run it helps to improve everyone's participation.
- *Respect* – recognizing that everyone has rights, whether they agree with us or not
- *No winners (or losers):* Let go of the idea that someone will be right and win and someone will be wrong and lose. The idea is to see if the group can be creative and patient enough to create a solution that everyone supports (even if not everyone loves it!)
- *No steamrolling.* Do not nag people to support your idea. Give good reasons to support it. If there is no movement, it is equally everyone's obligation to find new suggestions/compromises.
- *Changing your mind:* Don't change your mind just to make the group happy. Treat the decision as important and instead work hard to find a good solution that everyone can live with.
- *It is okay to disagree!* Differences of opinion are expected.
- *Call a time out:* Know when you need to take a break. Suggest a break if people seem frustrated.
- *Separate ideas from personalities*. Don't agree or disagree based on whether or not you like someone. Agree or disagree based on whether or not the ideas is good/sound.
- *Listen to find Agreement*. Challenge yourself to listen to find what is right with what someone said, not what is wrong.
- *Be open to being wrong*.
- *Be conscious of how much airtime you are taking up*. Don't hog the floor! Ask other people for their opinion and listen.
- *Participate*. Even if it feels difficult, you must make your voice heard.

Consensus Appendix C: Sample Questions to be Decided Upon by Consensus

Solve one of the following scenarios using consensus decision-making.

A. Your facilitator decided that she or he will take you on a two-day field trip. Your group gets to decide where to go.

B. Your group receives a gift bag. In the bag are: 2 badminton racquets and 2 birdies, 2 basketballs, a volleyball, 2 pairs of binoculars and a skateboard. Your group must decide what to do with them.

C. A fairy comes to your neighbourhood. She tells you that she will grant your group one wish about something you could change about your neighbourhood. She will grant you the wish only if you can make a decision by consensus.

Consensus Appendix D: Steps to Consensus-Building

1. The question or issue at hand is read aloud.
2. Clarifying questions: Create a four-column chart on big paper. The four columns should read as follows:

Questions	Who Might Know?	Who is Responsible for Finding Out?	Answers

   The group brainstorms all of the questions they would like to know the answer to before they make this decision. The group does not suggest answers at this time.

3. The group reviews the questions. Group members offer answers where appropriate. Unanswered questions are assigned to group members to seek the answers to. Date/Time (if applicable) is set for group to reconvene to move on to Step 4 once questions are answered
4. Group Discussion. Information learned is shared with the group. Suggestions are given. Group works toward a response to the question/scenario that everyone is comfortable with.
5. Group Pulse: Go around the circle. Have everyone state where she/he stands on the issue.
6. Summarizing the Pulse: Ask one person in the group to summarize where the group stands on the issue. For example, on the issue of _____ "many people seem to feel that _____. However, one person feels that _____ another person feels that _____.
7. Is there agreement? If yes, congratulations. If no, the group goes back to discussion mode. Is there a compromise that can be reached? Is there a new alternative that hasn't been suggested yet that everyone might support?
8. Repeat steps 5 to 8 as necessary.

Consensus Appendix E: The Role of the Facilitator

As a mentor, you have additional skills, knowledge and experience to bring to the group. We suggest that you:

- Carefully choose which decisions you can allow the young people to decide by consensus.
- Indicate that you will not be part of the consensus decision-making process so that you can maintain veto power if absolutely necessary and still allow the participants to have an authentic consensus-building experience.
- Provide very clear parameters before the consensus deliberation begins so that the participants can be successful in making a decision that the group is comfortable with and that you are comfortable with. Although it may seem counterintuitive, it is better to have too many parameters than too few. If the group comes up with a decision that does not adhere to a parameter that you thought was implicit but that the group members were not aware of, they will not trust that they have the authority to make decisions.

Activity 9B: Developing Telephone Skills

Purpose

- To identify and develop skills while preparing for, and making, phone calls
- To practice making phone calls to build confidence

Materials

- Copies of telephone tips and scenarios (below)
- Old telephone receiver(s) – optional

Procedure

1. Read through the "Phone Tips" below.
2. Model a simulation (see simulations at end of lesson) using the steps below and then put participants into groups of three to have them practice the different roles: one person telephoning, one person receiving the call, and one observer. Callers should sit back-to-back; observer should write notes.
3. Take a few minutes for each person to prepare statements, questions and potential responses.
4. After everyone has had a chance to try all three roles, in small groups, participants should identify strong and weak points, areas of confusion or misunderstandings, and ways to improve.
5. As a large group, discuss the most common strengths, weaknesses, possibilities for improvement

Phone Tips

Before Calling

- Know why you are calling.
- Know why you were calling this particular person or office.
- Know about the person being called: level of knowledge, opinion on subject at hand, past concerns, past statements, etc.
- Do your homework; explore the organization's website if they have one, so that you are not asking questions that are answered on the website.
- Know what you need.
- Make notes about what you want to ask.
- Make notes about what you want to say.
- Have a paper and pencil ready to take notes; start with the date, time, name of person called, and phone number used.
- Prepare yourself to answer questions.
- Gather and organize whatever information you may need to help you answer questions.
- Know how far you can go in making commitments and promises.

Starting the Call

- Identify yourself by first and last name
- Briefly identify your association: A member of _____(class or group?)
- Quickly state your needs:
- I would like to speak with _____
- I would like to speak with someone about _____
- I would like some information about _____

Prepare For Roadblocks

- "Could you suggest a time I might call back?"
- "Could you suggest someone else who might be able to help me?"
- Be ready to leave a clear message, should you be directed to a voice mailbox.

Ending the Call

- Wrap up by repeating and summarizing any commitments either of you have made.
- Be sure to say 'miigwetch'
- If you don't reach the person you need to speak to:
- Leave a message.
- Find out when you should call back.

After Calling

- Edit, revise and expand your notes.
- Initiate your next action steps
- Honour any commitments made.
- Make a plan to call back if necessary.

Sample Simulations

- ***Simulation 1:*** Call the community band office and/or city/town bylaw officer to see if there are any regulations for idling vehicles.
- ***Simulation 2:*** Call the police department to discuss ideas for working together to reduce littering and vandalism in the river.
- ***Simulation 3:*** Call the water treatment plant to discuss your findings based on water quality tests you completed. (The tests suggest there is a high level of organic matter coming from the water treatment plant).

Activity 9C: Lobbying

Purpose

- To introduce the concept of lobbying and to practice basic lobbying skills

Materials

- Lobbying simulations (attached)

Background Information

Though the term may evoke a sense of heading into risky territory, we are lobbyists every day. Teachers lobby their principal or department head for support to take on a new project; students lobby their parents for permission to use the car, a new cell phone, or permission to host a party.

Lobbying is a very sophisticated form of communication fundamental to how things get done in a democratic system of governance. Lobbying gets its name from the fact that this form of communication often takes place in the halls of government buildings.

Lobbying can have three main purposes:

1. ***Making a connection:*** In "introductory lobbying," a team of participants meets with a public official just to introduce themselves and seek out any ideas or advice that the public official may have on projects students might be interested in engaging in.
2. ***Seeking advice:*** This follow-up lobbying session is about "building a relationship and conducting reconnaissance" with an elected or public official. Participants are interested in informing the official and seeking advice on a project they are considering. It is also a time to find out who the official thinks might be able to provide expertise to help the students with their work.
3. ***Seeking commitment and support:*** This request usually occurs on a return visit after the groundwork has been thoroughly completed.

Guidelines for Action

A lobbying team is made up of three team members, each with a specific responsibility.

Lobbyist Role 1: The Recorder

This person's responsibility is to plan the lobbying session with the other two team members and then to observe and record all that occurs during the lobbying session. This person usually leads the lobbying debriefing session with the rest of the team members, right after the lobbying session.

Lobbyist Role 2: The Listener-Support Speaker

This person's responsibility is to co-plan the lobbying session and then to carefully listen to everything each person says during the lobbying session. This person should be ready to assist the primary speaker noting key points that they may have missed or to add additional information if it seems helpful to the session. They must fully know the objectives for the lobbying session and be sure the primary speaker covers them all. He or she must participate in the debriefing session right after the lobbying session is completed.

Lobbyist Role 3: The Primary Speaker – Presenter

This person's responsibility is to co-plan the lobbying session and then be prepared to be the primary communicator for the lobbying team during the lobbying session. The presenter is also responsible for participating in the lobbying debriefing session right after the lobbying session is completed.

The sequence for lobbying action

1. Do your homework and planning.
2. Make arrangements/appointments for the lobbying session.
3. Make effective introductions.
4. Communicate your purpose and plan.
5. Clarify understand and commitments.
6. Summarize the key points of understanding and action follow-ups.
7. Say miigwetch and remind of follow-ups or commitments to be acted upon.
8. Conduct debriefing session with your lobbying team to verify what each person observed and to review commitments and follow-up promises.
9. Make thank you note and follow-up with any pertinent information or affirmations of commitments.
10. Write a written summary of your lobbying team's experience.

Simulations

Prepare enough lobbyist simulation cards so that each lobbying team has an opportunity to present their lobbying task before a "mock" person of authority in a realistic simulation. The group will then critique each lobbying team for their effectiveness in accomplishing their assigned task. A variation is to ask the recorder/observer to publicly debrief the lobby team or even let the lobbying triad team publicly debrief in front of the remainder of the class and then get class feedback.

Strategies of the Person in Authority to Undermine the Lobbyists' Efforts

- distract the lobbyists from their task by asking about their families, interests, talking about current events etc.
- avoid making any commitment of any kind. Reassure them that they have a good idea, but…
- allow yourself to be interrupted by a phone call or other visitor
- be late
- claim poverty, overwork, other demands
- claim you have no power

Sample Lobbying Simulations

Simulation 1: You are to seek the School Board Chair's support to establish a composting program for all school lunchrooms.

Simulation 2: You are to meet with your school principal Mrs. Iam Green to move your interest in creating a wilderness adventure trip opportunity for students closer to reality.

Simulation 3: You are to meet with the town council chair Mr. Buildembig to seek the support of the council to create a community garden.

Simulation 4: You are to meet with town councillor Ione Tonnes who is a well known community leader. Your task is to convince the councillor that the community needs to establish a food bank and community re-use center that would support people bringing in goods that are still functional that other people could come and pick up for their use.

Simulation 5: You are to meet with school superintendent Dr. JJ. Growum to establish a school system community plan for creating a young naturalists mentoring program. The program would match high school students and retirees working with young primary students to help them develop a 'sense of place' with the natural systems in your community.

Activity 9D: Letter Writing

Materials

- Band, Municipal, Provincial and House of Commons web sites for local councilors, Chief,MPP and MP addresses
- Paper, envelopes, stamps or email access

Procedure

1. Read through the "letter writing tips" below.
2. Identify the most appropriate person/people to write your letter to.
3. Make sure you have done your research.
4. Write the letter, using proper business letter format.
5. Have it reviewed and proofread by peers and your facilitator.
6. Mail the letter.

Letter Writing Tips

A good letter requires background research to identify to whom you need to write, and to be able to present an informed opinion. Be sure to use appropriate business letter format and consider including 3 paragraphs:

Paragraph 1: The introductory paragraph identifies you, your relationship to the recipient (e.g. concerned student, child of residents in the riding, future voter.) and identifies the purpose of the letter.

Paragraph 2: The body paragraph clearly states your position on the issue and explains your rationale for taking that position. This is where you include some of your supporting evidence and explain how it backs up your position as well as explaining how the issue affects you.

Paragraph 3: The concluding paragraph identifies what you are requesting and asks for a reply.

Consider the following advice for writing a letter to your MP, adapted from the Canadian Psychological association's website: http://www.cpa.ca/documents/advocacy_p5.htm

- ✓ ***Be direct.*** State the subject of your letter clearly, keep it brief and address only one issue in each letter.
- ✓ ***Be accurate.*** Beware of false or misleading information. Always double-check if you are not sure.
- ✓ ***Be informative.*** State your own views, support them with your expert knowledge, and cite the bill number (Bill C-###) of relevant legislation, if appropriate. Your personally written letter is more highly regarded than pre-printed materials or postcards.
- ✓ ***Be courteous.*** A cordial relationship keeps the door open.
- ✓ ***Be constructive.*** Rely on the facts.

- ✓ ***Personalize your message.*** Cite examples from your own experience to support your position. Give personal examples of how the issue will impact your community.
- ✓ ***Be political***. Explain the hometown or school relevance of this issue. Use your institution's stationery, if authorized.
- ✓ ***Be inquiring.*** Ask questions. Expect a reply, even if it's only a form letter.

REMEMBER, *no postage is required to mail a letter to your MP in Canada.*

Follow-up to Your Letter

If you don't hear from the person after three or four weeks, follow up with a phone call, or with another letter that references the first one.

- If the reply you receive asks specific questions about the issue, make sure you respond with the answers.
- If your representative votes or takes a public stand that reflects your position, send a miigwetch. It's just as important to let your representatives know you support a position as it is to let them know you oppose one.
- If you are lobbying as part of a larger movement, make sure you send copies of all your correspondence with elected officials to the (local organizing committee). This allows groups to track grassroots communications and determine where they might need to get more people involved.

Step 12: Reflection

Activity 12A: Individual Reflection Questions

We suggest that the last 15 minutes of every session together be reserved for individual reflection. The responses to these questions should be compiled in the project log/diary (see assessment tools below). We strongly suggest that you provide meaningful formative feedback early on in the process so that participants understand what is expected.

Examples of Questions:

DAY ONE:

1. What did you do today?
2. What happened that was positive?
3. What happened that was negative?
4. What did you learn today?
5. What questions do you still have?
6. What do you hope to accomplish tomorrow?

DAY THREE:

1. I am concerned about the problem we are trying to work on because… (Describe the consequences of the problem in as detail as possible).
2. Some of the ways we were successful today are…
3. Some of the frustrations/problems we have encountered are…
4. This is how we hope to address the things that frustrated us today…
5. One thing that I can change/do differently tomorrow to be even more successful is…
6. Do you think this action plan will result in a positive change to the situation? Why or why not?

DAY FIVE:

1. Something that has frustrated me about this project is… (may be more than one thing)
2. Some ways that I have tried to solve these issues are…
3. Some things that I have learned about trying to make change are…
4. What levels of government are involved in your issue? Which levels of government are not involved? Do you think this division of responsibilities is appropriate (i.e. is the appropriate level of government dealing with the issue?)
5. Rate the quality of your work today. Explain.

DAY EIGHT:

1. Who exerts power in terms of your issue (company, government, person etc.)? Who has the power to make the decisions? Who has the power to make the rules? Who has the power to make the changes?. Explain.

2. Create a graphic organizer and list the positive and negative aspects of each of the following processes of decision making: a) **consensus model** b) **majority wins model** c) **dictatorship model**.

> *Consensus Building*
>
> A conversational style of decision making whereby issues and opinions are discussed across a range of perspectives with the objective of reaching a shared opinion or compromise agreement amongst a group of participants.
>
> *Majority Wins (vote)*
>
> In a group of 30 people, everyone gets to vote on where to go for an end-of-year celebration. 16 people choose a canoe trip and 14 people choose a trip to a science museum. The 16 people win the vote so all 30 people go on the canoe trip.

3. How do decisions seem to be made in your group? Did you use any of the three models mentioned above?

4. Do you feel that using this method worked for your group? Why or why not? Would you change this next time?

FINAL INDIVIDUAL REFLECTION:

1. What did you learn about planning a project?

2. Take a look at your group's action plan. A) What steps in the plan really helped you with the project? Explain. B) What steps did not seem to matter to the project? Explain.

3. What steps, if any, will you use when planning another project? Explain why you chose those steps.
4. What skills would you like to develop before taking on another big project? Explain.

Activity 12B: Group Reflection[14]

Purpose

- To reflect on the group's progress thus far and plan for future action
- To identify barriers to the action process
- To identify things the group has going for them
- To identify opportunities and resources to overcome barriers

Materials

- Chart paper- (two pieces side-by-side lengthwise to make a large chart)
- Thick markers (1 per group of 2-5 students)
- Coloured paper cut out in the shapes of boulders (beige), fish (pink), stream invertebrates (blue) and humans (yellow); simply using different colours of paper will also work.

Procedure

1. Individually, participants should quietly reflect on the following questions:
    - What are the challenges/barriers you have encountered in moving forward in your action project thus far (e.g. lack of time, current political climate, etc.)?
    - What strengths do you have going for you that have helped you move this far along?
    - What resources (human and non-human) are available to assist? (e.g. local expertise, organization, sources of funding, meeting space, water quality test kits, etc.)
    - Where are the "windows of opportunity" you can draw on to help you? (e.g. an upcoming event – spirit week or community election campaign, an unused ravine etc.)

    a. Create a visual metaphor to illustrate the action project journey thus far. For example, your group could use a stream metaphor – the start of your journey (perhaps your group is traveling on a kite board, a surf board, in a canoe, a kayak…) on your action project is at one end of the large paper; the successful completion of the journey is at the other end. On the way the group will encounter boulders (barriers) that you need to navigate around as well as food (resources) that help you. You will have had small successes (fancy tricks in your water craft) as well as some problems (dents and scratches in your boat?).

    b. Use the metaphor to create shapes that represent the barriers (e.g. rocks) and resources (e.g. food plants). Write one barrier per rock ("e.g. too many other commitments") and one resource per picture of food until all barriers and resources are listed.

    c. Discuss the visual. Any surprises? Any cautions about the journey ahead?

[14] Activity by MJ Barrett

Activity 12C: Reflecting at the End - Keepers/Changers[15]

Purpose

- To reflect on what worked and what didn't when taking action

Materials

- Blackboard or chart paper and thick markers
- 8 1/2 X 11 sheets of paper (for option 2)

Procedure

Option 1

1. On the board or chart paper, create a chart:

Keepers (things that you would do again)	Changers (things you would do differently)

1. In small groups, have participants brainstorm what things they would do the same or differently, if you were to take on a similar action project again.
2. Discuss as a large group.

Option 2

1. Brainstorm categories for reflection (e.g. public relations, letter writing campaign, communication with community partners, class teamwork etc.), whatever makes sense based on the components of your project.
2. Put the title of each category on an 8 1/2 by 11 sheet of paper, with the keepers/changers chart below the title.
3. Post these pages around the room and have students move from one sheet to the next, adding their input. If they agree with something someone else has already written down, they can put a checkmark beside that comment.
4. Bring ideas together and discuss.

Note: *If possible, involve community partners or school administration in at least some part of the reflection process.*

[15] Activity by MJ Barrett

J. Assessment Tools

Goals of the Project

The class identified an issue/problem that is important to the large group. You are expected to do two main things in response to this issue/problem:

1. Develop an understanding of a process for taking action and demonstrate your understanding of this process.
2. Actually do something real that could make a positive change in our community regarding the problem/issue.

Goals 1 and 2 above are equally as important; therefore, you will be assessed based on the work you do throughout the process as well as the final product.

Draft Action Plan (1 Copy per Group)

- Use the Action Planning Sheets (see page 97 of facilitator guide).
- Keep a copy of your plan (hard copy or electronic) and label it: "***Draft 1"***.
- Each time you revise the plan, make the changes and give it a new title, e.g. "Draft 2" (for electronic versions) or write the date of the change that you made on the original hard copy.
- Keep a copy of all drafts in your folder. You will want to reflect on these to help you with the assignments below.

Project Assessment/Evaluation:

1. OVERALL- Learning Skills Assessment
2. DIARY/SCRAPBOOK- Rubric attached

Assignment One--Project Portfolio/Scrapbook (1 per Person)

The Project portfolio/scrapbook is your record of what actually happened from the very beginning to the very end of the project. It will be made up of at least 4 main components:

1. Your individual reflections that you write/create at the end of each period. You will be given guiding questions for these reflections.
2. The 'story' of what actually happened. This story should be clear enough that someone who was not in the class can pick up your log and understand what you did, what happened when, etc. You can use any combination of the following things to tell the story.
   - Words
   - Pictures (drawn, photos)
   - Videos
   - Examples of documents about your issue and/or that you developed for your project (brochures, posters, etc.)
   - Interviews with people involved
   - Notes/photos of activities done throughout the process (e.g. so what chart, force field analysis chart, etc.)
3. *Your own completed assessment of the PROJECT ITSELF (Learning Skills) using the rubric below.*
4. *Your own completed assessment of your PROJECT PORTFOLIO/SCRAPBOOK using the rubric below.*

SAMPLE RUBRIC USING GRADE 10 CIVICS CURRICULUM EXPECTATIONS: PROJECT PORTFOLIO

	Level 4	Level 3	Level 2	Level 1	Self Assessment	Teacher Assessment
KNOWLEDGE/ UNDERSTANDING Demonstrates knowledge and understanding of an issue related to local citizenship (issue, process, positive change, level of government)	Thorough knowledge and understanding …	Considerable knowledge and understanding …	Some Knowledge and understanding	Limited knowledge and understanding		
THINKING/ INQUIRY *Demonstrates the use of critical and creative thinking skills to use an active process to achieve a goal of citizenship (questions raised, problem solving, decision making, research, reflection).*	Demonstrates **exemplary** critical and creative thinking skills...	Demonstrates **considerable** critical and creative thinking skills...	Demonstrates **some** critical and creative thinking skills...	Demonstrates **limited** critical and creative thinking skills...		
APPLICATION *Demonstrates the use of the suggested project planning process to carry out a plan to make a positive change in the community.*	Demonstrates **exemplary** use of the suggested project planning process	Demonstrates **considerable** use of the suggested project planning process	Demonstrates **some** use of the suggested project planning process	Demonstrates **limited** use of the suggested project planning process		
COMMUNICATION Communicates through Project Log.(spelling, grammar, organization, layout, thoroughness, clarity, terminology etc.)	**Exemplary** use of communicatio n tools and conventions	**Considerable** use of communication tools and conventions	**Some** use of communicatio n tools and conventions	**Limited** use of communicatio n tools and conventions		

Appendices

Appendix A: Ontario Curriculum Connections

Grade	Courses						
Grade 6	Science: Biodiversity						
Grade 7	Geography: Natural Resources	Science: Interactions with Ecosystems					
Grade 8	Science: Water	Science: Systems Thinking					
Grade 9	Geography: Human-Envt. Interactions	Science: Sustainable Ecosystems	Individual and Family Living				
Grade 10	Native Studies	Civics	Science: climate change	Green Industries THJ20	Individual and Family Living		
Grade 11	Current Aboriginal Issues in Canada	Aboriginal Beliefs, Values and Aspirations	Biology: Diversity of Living Things	Environmental Science	Green Industries	Canadian Politics and Citizenship	
Grade 12	Aboriginal Governance	Issues of Indigenous Peoples in a Global Context	Global Issues	Science (SNC4M): Biotechnology	Geography: The Environment and Resource Management	Economic Decision Making	Cdn and World Politics

Appendix B: Dealing with Sensitive Issues

When addressing sensitive issues and/or exposing young people to alternative perspectives, we suggest the steps below.

1. ***Be proactive***. Work out a plan and communicate that plan to: parents, administrators, community leaders, and students. Emphasize why you think exposing youth to alternative perspectives (or any other sensitive issue) is important. For example, exposure to alternative perspectives:

- Contributes to developing open-mindedness
- Provides more options for solving problems
- Helps develop "intellectual empathy"
- Provides emotionally safer places in which young people can grow
- Addresses concerns of bias and indoctrination
- Makes young people more aware of their own values and biases

We believe it is difficult to disagree with a well-thought out, balanced approach to including alternative perspectives.

2. Ask an Elder for guidance.

3.Think about the young people you deal with. ***Is there anyone for whom the particular issue and/or perspective may be uncomfortable?*** For the benefit of this student and/or her/his family, is there sufficient reason to choose a different issue/perspective to use with this group of young people?

4.There are many different roles the facilitator may take. ***We suggest a position of 'Declared Interest'***. With the students, declare your own view point and then present as many differing viewpoints as objectively as possible. We believe that declaring one's own point of view is helpful for at least four reasons.

- It provides the facilitator with an opportunity to model for young people the act of holding a considered opinion.
- It provides the facilitator with an opportunity to explain to young people how she/he came up with the opinion. Explaining the "thinking behind the thinking" is a rich teaching tool.
- It may provide the facilitator with an opportunity to model the act of changing one's position.
- It helps young people and facilitators to look for bias in the facilitator's instruction/coaching.

5. Plan activities which ***explicitly teach students the skills they need to participate in sophisticated discussions.*** For example, create role plays which teach students what active listening looks like/sounds like and what it does not look like/sound like.

6. ***Establish ground rules*** for all discussions in the classroom. Be meticulous about encouraging behaviour consistent with these ground rules and discouraging behaviour inconsistent with these ground rules.

Examples of ground rules may include:

a. Act in ways that you think will encourage other people to share their thoughts.
b. Be careful not to take up more than your own share of air time.
c. Challenge ideas but not people.
d. Use language that respects people's rights.
e. Only one person speaks at a time.
f. Remember that there are many different positions people can hold on various issues. Thoughtful, smart people may have viewpoints different from your own and continue to be thoughtful, smart people.
g. g.Ask for clarification when you don't understand someone's viewpoint.
h. Accept that requests for clarification are not necessarily challenges to your own viewpoint.
i. Record things that have been agreed upon or points about which people agree to disagree so as to refrain from spending too much time stuck in a particular dimension of the discussion.
j. If people are upset, the whole group may take a break.
k. Push yourself to participate even when it feels difficult. Everyone will benefit.

6. When examining the issue itself:

Help young people to identify as many diverse positions on an issue as possible.

Help young people to examine underlying tenets for diverse positions which may need to be questioned.

Some helpful resources for dealing with controversial issues in the classroom can be found here:

http://www.edu.gov.mb.ca/k12/cur/socstud/frame_found_sr2/tns/tn-34.pdf

http://bctf.ca/GlobalEd/TeachingResources/ClarkePat/TeachingControversialIssues.html

http://www.oxfam.org.uk/education/teachersupport/cpd/controversial/files/teaching_controversial_issues.pdf

http://www.queensu.ca/ctl/goodpractice/help/discussion_controversial.html

Appendix C: More Than Two Perspectives

The dominant culture has a habit of painting things as either this or that. We believe that this dichotomization forces people to choose between absolutes when we know that in the real world there are, in fact, many shades of gray. For this reason, when we propose viewpoints that seem to be in opposition, we try to present them as being along a continuum. This helps people to feel less like they belong to a particular 'camp'. Perhaps if one's position is along a continuum (rather than in a camp), it is a little easier to slide in one direction or another (rather than changing camps completely). Presenting at least three (or more) 'positions' on an issue, helps people to move toward ***dialogue*** rather than debate. The characteristics of dialogue are presented nicely below in an excerpt from work by the Canadian Council for International Cooperation.

The Dialogue/Debate Continuum

Deliberative dialogue	**Debate**
Collaborative	Oppositional
Common ground	Points of divergence
Listening to find meaning	Listening to find flaws
Listening for possible agreement	Listening to find points to argue
Openness to being wrong	Determination to be right
Weighing alternatives	Winning
Assumes that others have pieces of the answer and all can find it together	Assumes there is a right answer and someone has it

http://www.ccic.ca/resources/archives_public_deliberation_2003_overview_e.php viewed April 11, 2011

Appendix D: Background Information about Water Pollutants

Non-point Source Pollution

Non-point source pollution is pollution spread over a large area and not from one specific location; this type of pollution is hard to trace to its source , e.g. litter, acid rain, etc.

Point Source Pollution

Point source pollution is easily traced to its source, e.g. factories and sewage treatment plant wastewater. Nonpoint source pollution, unlike point source pollution, comes from many different sources[xlviii].

Non-point Source Pollution is the single largest contributor to water pollution!

How does Pollution get into our Water System?

As runoff water from rainfall or melting snow moving over and through the ground passes through the watershed, it picks up and carries away natural and human-made substances such as chemicals, sediment and debris and deposits them into lakes, rivers, wetlands, coastal waters and underground sources of drinking water.

Pollutants do ***not*** enter the local water body through the storm drain system at a constant rate over the year. For example, there is a large increase in non-point source pollution in the springtime. This is the peak time for runoff from melting snow and rain which ends up in the storm drain system, untreated[xlix].

Water slowly moves through soil (groundwater) and naturally gets filtered. Since about 70% of towns and cities are paved or built over, about half of the precipitation that falls on our cities never touches the soil. Water running over pavement collects debris and chemicals (for example from car exhaust) and often goes directly into the storm drain system without moving through soil[l].

Where do these pollutants come from?

There are many sources of water pollutants, including industrial and agricultural sources. However, Canadian households annually generate more than 60,000 tonnes of hazardous wastes. Common examples of hazardous household wastes include: old car batteries, lighter fluid, turpentine, gasoline, used motor oil, antifreeze, pool chemicals and pesticides. Other pollutants that commonly end up in the water system are soap and fertilizer. These may not be toxic, but in high concentrations they can have a negative impact on the aquatic ecosystem by changing pH levels of water sources.

What are the effects of non-point source pollution?

Non-point source pollution in our waterways impacts not only humans but also the other animals and plants that depend on that water. Non-point source pollution can affect the food supply and is the major source of human exposure to persistent toxic chemicals. For example, food can become contaminated when it is exposed to hazardous waste, which can happen at any point in its life; this is especially true with fish and wild game.

The water in your watershed continues on to the next community's watershed. Municipal water is treated before reaching households, but if the water going into the treatment plant is contaminated, it takes more time and energy and money to clean it[li].

Non-point source pollution also impacts the watershed ecosystem. Different levels of different pollutants will affect plants and animals in and around the water (Figure 1).

Figure 1: Pollutant Effects on Aquatic Ecosystems[lii]

Pollutant	Source	Effects
Detergents	• Washing cars in the driveway • Dumping wash water onto the street • Washing siding or windows	• Can strip away the protective mucous coating on a fish – without this protective coating, fish will absorb more chemicals and are more susceptible to disease. • High concentrations can kill fish eggs and adult fish. • Phosphorous in detergents encourages the growth of algae. When the algae dies it uses up a lot of oxygen. This means that there is less oxygen available for other plants and animals. Many types of fish cannot survive in water with low oxygen levels.
Garbage	• Litter from people, houses, parks, industrial areas and construction sites	• Can cause unsightly debris and bad odours. • When ingested by an animal, litter can be dangerous, often causing death. • Sharp litter can harm people or animals (e.g. glass). • Animals can become entangled and strangled by litter, which is dangerous and can cause death (e.g. beer plastic rings and plastic bags).
Heat	• Even heat can be a pollutant! • Because the storm drain water is coming from runoff over land and roads, storm drain outfall is usually warmer than the local water body.	• Increased temperatures can affect certain species of fish, invertebrates and plants, which are adapted to living in a certain range of temperatures. Fish are particularly sensitive to temperature changes during spawning. • Warmer water holds less dissolved oxygen, which can be a problem for species that require a certain oxygen level in the water. Coldwater fish, such as trout, prefer waters that are cooler than 14°C.
Heavy Metals	• Industrial sites • Washing cars in the driveway • Metal corrosion (e.g. from cars and pipes) • Pesticides and herbicides	• The levels of heavy metals found in water are generally low, however, due to bioaccumulation, higher concentrations can be found in wildlife. • Bioaccumulation is an increase in the concentration of a chemical in an organism over time. As an organism drinks and eats contaminated sources, it will accumulate chemicals in its body over time.
Nitrates and Phosphates	• Nitrates come mainly from fertilizers, and some from animal waste • Phosphates are found in detergents	• Can cause eutrophication or algal bloom. • Nitrates and phosphates are nutrients that plants need for growth. Algae will grow very quickly if there is a high concentration of these nutrients in the water, causing algal blooms. • Too much algae in the water leads to less oxygen for other organisms, less light reaching other plants and can clog the gills of fish.
Oil and Grease (Hydro-carbons)	• Leakage of oil and other lubricating agents from cars and other motorized machines	• There is a wide array of hydrocarbon compounds, some of which are known to be toxic to aquatic life. • More oil comes from storm drain pollution than from oil tanker spills!

Pollutant	Source	Effects
Pathogens (disease causing organisms)	• Can be found in pet and livestock wastes and can move into the water system as a result of run off from lawns and farm fields. • Can get into the water system as a result of faulty septic systems.	• Pathogens include bacteria like E. coli and Salmonella, protozoan parasites like Giardia lamblia (beaver fever), and viruses like Norwalk. • They can cause illnesses in humans and wildlife.
Pesticides	• Excess herbicides and insecticides from residential and agricultural lands	• Can harm plants, wildlife and humans through chronic low concentration or sudden high concentration exposures. • Effects include: loss in production, changes in growth, development and/or behaviour and death of species. • Cancer, endocrine disruption.
Salts	• Sidewalk and roadway application • Irrigation practices	• Salt dissolves very easily in runoff and can increase the salinity of the local water body. In some places, spring runoff can cause the salinity of the local water body to reach ocean salinity levels! • Freshwater species of plants and animals are not adapted to the high level of salinity, like saltwater species are, and can be adversely affected. • The dissolved salts are difficult and expensive to remove. • High salinity water may also be corrosive to piping systems.
Sediments	• Includes organic debris, silt and sand from roadways, improperly managed construction sites, crop and forest lands and eroding stream banks	• Can increase turbidity, or the cloudiness of the water, which can clog fish gills, decrease the amount of dissolved oxygen in the water and suffocate trout and other organisms' eggs. • Added sediments can change the course of a river or a stream and damage habitat – it doesn't take much sediment to do this!

What can we do?

We can help improve storm water management in a number of ways:

- Reduce fertilizer, pesticide and insecticide use on gardens and lawns.
- Don't dispose of used oil or grease down storm water drains, and clean up spilled brake fluid, oil, grease and antifreeze, i.e. do not hose them into the street where they can eventually reach local streams and lakes.
- Don't wash your car where the detergent water can run into the storm water drains.
- Keep litter, pet wastes, leaves and debris out of the street gutters and storm drains.
- Control soil erosion on your property by planting ground cover and stabilizing erosion-prone areas[liii].

Water Cycle Overview

Precipitation that falls on the Earth's surface forms from condensation when water vapour in the air cools and condenses into drops of liquid water or ice crystals. Some of this precipitation infiltrates the ground and becomes part of the groundwater; some is intercepted by plants or by human structures while the remainder runs off the land as surface water. Water returns to the atmosphere through the combined processes of evaporation and transpiration through plants[liv].

Approximately 97 percent of the Earth's total supply of water is found in the oceans. The remaining 3 percent is fresh water, which is mostly unavailable for use by plants, humans and

other animals. Most of this water is either frozen in glaciers or polar ice caps or located deep beneath the Earth's surface where it is not economically feasible to extract. This leaves only 0.5% of the Earth's total water supply available as fresh water from rivers, lakes or underground aquifers.

Our only source of 'new' water is bits of comet that melt as they enter our atmosphere... who has seen one of those lately??? Most of the water on Earth has been around in one form or another since the beginning of time which means, in a sense, we've been drinking the same water that was contained in the dinosaurs' pee!

Where does our drinking water come from?

Most cities of fewer than 5,000 people get their drinking water by drilling wells into groundwater supplies. Larger cities obtain their water from surface waters such as rivers and lakes. Cities that rely on rivers as a source usually dam the river. The average Canadian uses about 335 litres of water per day[lv].

Treatment of Water Before it Reaches our Homes

Our public water systems supply cities with water. Since most water sources are not pure, water is treated before it reaches our homes.

Three processes are involved in water treatment.

1. **coagulation and settling**: mixing water with chemical coagulants to allow bacteria, mud and other impurities to stick to the chemicals and settle at the bottom.
2. **filtration**: water is passed through a filter or screen to trap particles
3. **disinfection**: chlorine and other chemicals are added to kill remaining bacteria.

Once drinking water is treated, the water flows to a pumping station where it is pumped through large water mains to homes, businesses, schools, etc.[lvi]

Treatment (?) of Waste Water ('Sewage") after it Leaves our Homes

Most of the water in our homes is used to carry our waste away. In urban areas, human sewage and industrial wastes flow through sewer pipes to sewage treatment plants. The wastewater then goes through several stages of treatments where solids are screened out, water is filtered and then finally, disinfected.

During heavy rains or melts, the complex system of waste water and storm drain pipes cannot handle the large volume of water. Frequently, untreated sewage and storm runoff get mixed together and both types of water bypass the treatment plant and flow directly into surface waters[lvii].

Not all sewage in Canada is treated[lviii]. In Canada, one trillion litres of untreated sewage is dumped into waterways every year. This volume would cover the entire 7,800 km length of the Trans-Canada highway to a depth of 20 meters[lix]!

Good sewage plants can only remove about half of the nitrogen and 30 percent of the phosphorus from domestic sewage. This means that between 90,718,474 and 226,796,185 kilograms of phosphates enter American waterways each year.[lx]

Appendix E: Story Suggestions

> *I have my students read Leopold, Snyder, Berry, and House as stories of lives lived—lives lived within larger lives, stories within larger stories—rather than s arguments in competition with one another. Stories in relationship to one another behave more like elements of ecosystems than like arguments squaring off against one another.*
> *Jim Cheney 2002, 98*

Stories that Inspire us about the Importance of Water

- Rawlings, Marjorie Kinnan (2009) *The Secret River*. Atheneum Books
- Morrison, Gordon (2006) *A Drop of Water.* Houghton Mifflin.
- Strauss, Rochelle (2007) *One Well*. Kids Can Press.
- Lichtenheld, Tom (2011)*Cloudette*. Henry Holt & Co.

Stories that Help Students to Practise Exploring Different Perspectives

The True story of the Three Little Pigs as told to Jon Scieszka

From Amazon.com: ``Did the story of the three little pigs ever seem slightly biased to you? All that huffing and puffing--could one wolf really be so unequivocally evil? Finally, we get to hear the rest of the story, "as told to author Jon Scieszka," straight from the wolf's mouth. As Alexander T. Wolf explains it, the whole Big Bad Wolf thing was just a big misunderstanding. Al Wolf was minding his own business, making his granny a cake, when he realized he was out of a key ingredient. He innocently went from house to house to house (one made of straw, one of sticks, and one of bricks) asking to borrow a cup of sugar. Could he help it if he had a bad cold, causing him to sneeze gigantic, gale-force sneezes? Could he help it if pigs these days use shabby construction materials? And after the pigs had been ever-so-accidentally killed, well, who can blame him for having a snack?”

Two Bad Ants by Chris van Allsburg

From Publishers Weekly: “In this new book by Van Allsburg, twice a winner of the Caldecott Medal, the theme of an outsider's point-of-view (touched upon most recently in his The Stranger) is expanded. Accustomed to the orderly and uneventful life in the ant hole, all the ants enter the bizarre world of a kitchen in the search for sugar crystals for the queen. Two greedy ants stay behind in the sugar bowl, eating their fill and then falling asleep. Their slumbers end when a giant scoop drops them into a sea of boiling brown coffee. Further mishaps include a heated stay in the toaster, a hazardous swirl in the garbage disposal and a zap in an electrical outlet. When the ant troops return, the two bad ants gladly rejoin their friends and head for the safety of home. In this work, the hazards of nonconformity are clear. The narration has the feel of early newsreels where the broadcaster described unknown phenomena in clipped, clinical language: "A strange force passed through the wet ants. They were stunned senseless and blown out of the holes like bullets from a gun." The resilient ants and the eerie landscapes are portrayed in strong black-and-white images, enriched by deep brown, purple, slate, gold and steely blue colors; Van Allsburg, playing with perspective, creates marvelous contrasts and images. But although Two Bad Ants is visually different from its predecessors, it shares the same strong style, dazzling artwork and whimsy that characterizes all of the artist's work. Ages 3-8.”

"The Vacuum Cleaner's Revenge" by Patricia Hubbell from Dirty Laundry Pile: Poems in Different Voices

From School Library Journal: “Grade 3-6-Janeczko's collection of "persona" or "mask" poems-poems written in voices of nonhuman things-is varied in topic, mood, and quality. The selector has included many crackerjack poets, such as Karla Kuskin, Bobbi Katz, Lillian Moore, and Douglas Florian, and a few whose names are not as familiar. Most of the selections have been taken from other anthologies. Whether thoughtful or humorous in nature, many of them are on-target descriptions of a variety of unrelated objects-a kite, roots, a sky-blue crayon, a vacuum cleaner, a pair of red gloves, the winter wind. The cleverness of the best of these descriptions voiced by inanimate narrators might entice young people to try to create some similar verses of their own. Sweet's bright, colorful watercolors in a flat cartoon style depict full- and double-page scenes and borders that feature critters and objects from the poems. Consider this one for classroom read-alouds.” *Susan Scheps, Shaker Heights Public Library, OH*

Yours Truly, Goldilocks by Alma Flor Ada

From School Library Journal Kindergarten-Grade 3: “Like Dear Peter Rabbit (Atheneum, 1994), this charming book tells its story through an exchange of letters. Here Ada chronicles the attempt of the three little pigs to plan a housewarming party. Meanwhile the villains from the previous title are still up to no good, spying on the residents of the forest and planning an attack on the homeward-bound guests. Fortunately, the surprise is on them and the two wolves lose both their pride and their fur. This is fairy-tale fun at its best. Following these well-loved characters on a new adventure tickles the imagination with fanciful "what ifs." Tryon's wonderfully intricate colored [sic] drawings, with their delightful details and carefully wrought scenarios, bring the action to life. Perspective plays an important role in many of the pictures, from the wolf's telescope-lens view of his victims, to an interior scene of Peter Rabbit's den. Warm colors and sharp details pull readers right into the Hidden Forest. The climactic scenes are on wordless double-page spreads that perfectly convey a sense of frivolity and fear, while the final letter leaves readers hoping for yet another instalment [sic]. Get on the mailing list for these letters. Beth Tegart, Oneida City Schools, NY”.

I am the Dog/ I am the Cat by Donald Hall

From School Library Journal “A free-verse poem that alternates the animals' voices. A Rottweiler lists its likes and dislikes making declarations with strong verbs. Its actions are forthright and positive, for it is a dog. A tabby's speeches take a more leisurely tone, conveyed by longer, rambling sentences and softer sounds. It exhibits contradictory and more emotional behaviors, for it is a cat. Moser's full-page watercolor portraits are naturalistic. His use of close perspectives, mostly from the animals'-eye view, capture the immediacy and personality of each creature. Adults will recognize the truth of this book and be amused; children will enjoy the words and pictures and be amused, as well.”
Karen K. Radtke, Milwaukee Public Library.

Diary of a Worm by Doreen Cronin (see also Diary of a Fly, Diary of a Spider, and Click Clack Moo)
From School Library Journal PreSchool-Grade 3- “A baseball-capped crawler gives readers an episodic glimpse into the vicissitudes of his life in these hilarious diary entries. Difficulties such as having no arms, having a head that looks a lot like your rear end, and facing the dangers imposed by people digging for bait are balanced by a loving family and good friends. The young protagonist describes playing with his friend Spider, engaging in a variety of activities at school, and interacting with his parents and sister. Packed into these droll slice-of-worm-life vignettes are a few facts about earthworms and their behavior, all rendered with a dry sense of humor. The full-color watercolor-and-ink illustrations sprawl across the pages in lush earth tones. Bliss's cartoons give the worms lots of personality without overly anthropomorphizing them. The use of multiple perspectives will have children eagerly looking at the pictures to identify objects and locales. Primary-grade youngsters will especially appreciate the classroom scenes. This quirky worm's-eye view of the world makes these ubiquitous invertebrates a little more understandable and a lot more fun.” *Marge Loch-Wouters, Menasha's Public Library, WI*

Fly Away Home by Eve Bunting
From School Library Journal: "’My dad and I live in an airport . . . the airport is better than the streets.’" As they did in The Wall (Clarion, 1990), Bunting and Himler successfully present a difficult subject in picture book format. A small child narrates the facts of his homeless existence--sleeping sitting up, washing in the restroom, and above all, avoiding being noticed. The brief text runs through all his emotions from a matter-of-fact acceptance to a fierce longing that makes him angry at those who have homes. Using subdued watercolors, Himler conveys the vast, impersonal spaces through which father and son move. He often places them at the back or edge of the pictures, underscoring their need to go unnoticed. This is a serious story but not an overpoweringly grim one. There is a reassuring togetherness between father and son and although there isn't an easy, happy ending, it does conclude on a poignant yet believable note of hope. Both illustrator and author focus on giving the child's-eye view of the problem, and their skill makes this a first-rate picture book that deserves a place in all collections.” --Karen James, Louisville Free Public Library, KY. *--This text refers to the Hardcover edition.*

Novels Written From Different/Unique Perspectives

The Curious Incident of the Dog in the Night by Mark Haddon
From Publishers Weekly

“Christopher Boone, the autistic 15-year-old narrator of this revelatory novel, relaxes by groaning and doing math problems in his head, eats red-but not yellow or brown-foods and screams when he is touched. Strange as he may seem, other people are far more of a conundrum to him, for he lacks the intuitive "theory of mind" by which most of us sense what's going on in other people's heads. When his neighbor's poodle is killed and Christopher is falsely accused of the crime, he decides that he will take a page from Sherlock Holmes (one of his favorite characters) and track down the killer. As the mystery leads him to the secrets of his parents' broken marriage and then into an odyssey to find his place in the world, he must fall back on deductive logic to navigate the emotional complexities of a social world that remains a closed book to him. In the hands of first-

time novelist Haddon, Christopher is a fascinating case study and, above all, a sympathetic boy: not closed off, as the stereotype would have it, but too open-overwhelmed by sensations, bereft of the filters through which normal people screen their surroundings. Christopher can only make sense of the chaos of stimuli by imposing arbitrary patterns ("4 yellow cars in a row made it a Black Day, which is a day when I don't speak to anyone and sit on my own reading books and don't eat my lunch and Take No Risks"). His literal-minded observations make for a kind of poetic sensibility and a poignant evocation of character. Though Christopher insists, "This will not be a funny book. I cannot tell jokes because I do not understand them," the novel brims with touching, ironic humor. The result is an eye-opening work in a unique and compelling literary voice."

Happenstance by Carol Shields
From Library Journal
This "is actually two novels in one ("The Wife's Story" and "The Husband's Story") published in a back-to-back format. Over the period of one particularly eventful week, the husband and wife each experience midlife crises. Brenda, a quilt-maker, travels to Philadelphia for a craft convention and a journey of self-discovery. Jack, a historian, who remains behind to look after the children, wrestles with his own set of problems--troubled friends and the long-delayed completion of his book on Great Lakes Indian trading practices. The two stories were originally published as separate novels, and the unique format of the current publication forces the reader to choose whose story to read first. Ultimately, it makes little difference since the parts form such a well-meshed whole that you will leave this couple and their stories with reluctance." - *Barbara Love, St. Lawrence Coll., Kingston, Ontario*

***Yo!* by Julia Alvarez**
Amazon.com Review: "The heroine of Julia Alvarez's *Yo!* is an author who writes what she knows--much to the chagrin of her close-knit immigrant family. During the first chapter, one of Yolanda (Yo) Garcia's sisters explains the basic problem: "I always was a reader, but now, whenever I open a book, even if it's something by someone dead, all I can do is shake my head and think oh my god, I wonder what their family thought of this story." Yo's friends and family members, many of whom appeared in Alvarez's earlier novel, *How the Garcia Girls Lost Their Accents*, take turns n.arrating this book. They draw a vivid portrait of the writer, describing her big mouth and high-strung nature as well as the details of her youth in the Dominican Republic. They're often more keenly aware of class, gender, and racial divisions than is Yo herself. When Yo returns to the Dominican Republic to spend a summer reconnecting with her roots, for instance, the servants at the family estate regard her as a very strange (but likeable) foreigner. In another segment, Yo's landlord, whose husband beats her, describes the writer's efforts to save her from the abusive relationship. In these episodes and others, Yo comes across as a woman who doesn't quite fathom the complexity of the events going on around her but has so much good will and verve that people forgive her small transgressions. It is a pleasure to hear all these diverse voices; some are funny, some wistful, but all of them seem to think Yolanda Garcia is the bee's knees. *Yo!* is a thoughtful, entertaining novel about the immigrant experience and the impact writers have on the lives of their peers."*--Jill Marquis*

References

[i] CBC News in Review, 2003

[ii] (Statistics Canada, 2001 Census.")."

[iii] Alberta Education (2005) *Our Words, Our Ways: Teaching First Nations, Métis and Inuit Learners*, p.13. This document can be viewed at http://education.alberta.ca/media/307199/words.pdf (Our Words, Our Ways, p.13)

[iv] Aboriginal Affairs and Northern Development Canada, "First Nations People of Canada" online at: http://www.aadnc-aandc.gc.ca/eng/1303134042666/1303134337338)

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